

UNDERGRADUATE STUDIES CATALOG 2023-2024

## NOTICE

The rules, regulations, policies, fees and other charges, courses of study, and academic requirements that appear in this catalog were in effect at the time of its publication. Like everything else in this catalog, they are published for informational purposes only, and they do not constitute a contract between Worcester State University and any student, applicant for admission or other person.

Whether noted elsewhere in this catalog or not, Worcester State University reserves the right to change, eliminate, and add to any existing (and to introduce additional) rules, regulations, policies, fees and other charges, courses of study and academic requirements. Whenever it does so, Worcester State University will give as much advance notice as it considers feasible or appropriate, but it reserves the right in all cases to do so without notice.

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## UNDERGRADUATE CATALOG

Worcester State University
486 Chandler Street
Worcester, MA 01602-2597
508-929-8000
http://www.worcester.edu
The listing of a course in this catalog is not a guarantee that the course will be offered in any particular semester. Course offerings are subject to change in response to student enrollment, faculty availability, changes in program requirements and other circumstances. The rules, regulations, policies, fees and other charges, courses of study, and academic requirements that appear in this catalog were in effect at the time of its publication. Like everything else in the catalog, they are published for informational purposes and do not constitute a contract between Worcester State University and any student, applicant for admission, or other person. Whether noted elsewhere in this catalog or not, Worcester State University reserves the right to change, eliminate, and add to any existing (and to introduce additional) rules, regulations, policies, fees or other charges, courses of study, and academic requirements. Whenever it does so, Worcester State University will give as much notice as it considers feasible or appropriate, but it reserves the right in all cases to do so without notice.

Publication date of this catalog: 8/31/23.
Graduate information is available in the Graduate School Catalog.

## General Information

From its founding in 1874, Worcester State University has been dedicated to educational programs that lead to self-enrichment and to careers in the professions, government, business, and industry.

As a public, state-supported university governed by a local Board of Trustees under the direction of the Massachusetts Department of Higher Education, Worcester State University is empowered to award baccalaureate and master's degrees in education and in the arts and sciences. While continuing its tradition of serving the residents of the Commonwealth, Worcester State University has earned a reputation for quality teaching by dedicated faculty in classes of moderate size, and for programs responsive to its students' and society's changing needs.

## Accreditation

Worcester State University is accredited by the New England Commission on Higher Education, Inc. (NECHE), formerly the New England Association of Schools and Colleges (NEASC). NECHE is a non-governmental, nationally recognized, regional accreditation agency for colleges and universities in the six New England states.

Accreditation of an institution by NECHE indicates that it meets or exceeds criteria for the assessment of institutional quality periodically applied through a peer group review process. An accredited institution is one which has available the necessary resources to achieve its stated purposes through appropriate educational programs, is substantially doing so, and gives reasonable evidence that it will continue to do so in the foreseeable future. Institutional integrity is also addressed through accreditation.

Accreditation by NECHE applies to the institution as a whole. As such, it is not a guarantee of the quality of every course or program offered, or the competence of individual graduates. Rather, it provides reasonable assurance of the quality of opportunities available to students who attend the institution.

Inquiries regarding the status of an institution's accreditation by NECHE should be directed to the administrative staff of the school or college. Individuals may also contact the Commission at:

New England Commission of Higher Education
3 Burlington Woods Drive, Suite 100
Burlington, MA 01803-4514
781-425-7785
https://www.neche.org/
The following graduate programs are accredited by their respective professional organizations:

- Nursing, The Commission on Collegiate Nursing Education
- Speech-Language Pathology, the American Speech-Language-Hearing Association
- Occupational Therapy, Accreditation Council for Occupational Therapy Education
- Education, Massachusetts Department of Elementary and Secondary Education
- Education-School Psychology, The Department of Elementary and Secondary Education (DESE), National Association of School Psychologists (NASP)

Please refer to department chapters for addresses and telephone numbers of the accrediting organizations.

## Campus

Worcester State University's 58 acre campus is nestled in the residential west side of Worcester, the second largest city in Massachusetts and New England and a dynamic college city with over 30,000 students. The campus is a short drive from tranquil forests, hiking trails and beautiful vistas and an even shorter distance from a vibrant city life that offers popular entertainment venues, award-winning restaurants, cultural museums, historic parks, and so much more. Directions are available on the website at http://www.worcester.edu/directions. The physical facilities of the campus include the following:

## Helen G. Shaughnessy Administration Building

The Helen G. Shaughnessy Administration Building combines modern convenience and efficiency with much of the charm of the old Teachers College. It houses streamlined student services in an "academic mall" on the first floor as well as the Enrollment Management Division and Admissions Welcome Center. On the second floor are the President's Office and Conference Room, the Fuller Theater, Office of

Communications and Marketing, and Institutional Advancement. The third floor is home to Academic Affairs, Administration and Finance, Institutional Research and Assessment, Human Resources, Payroll and Benefits, Diversity and Affirmative Action. The Division of Graduate and Continuing Education and the Intensive English Language Institute are located on the fourth floor.

## Kalyan K. Ghosh Science and Technology Building

The Science and Technology Building is a state-of-the-art building designed to house the sciences including: Academic Computing, Communication Sciences and Disorders, Occupational Therapy, Computer Science, Biology, Biotechnology, Chemistry, Geography and Earth and Environmental Science, Geology, Natural Science and Physics, Health Science and Nursing. The building contains 30 science, therapy and computer labs, offices for faculty and staff, conference/seminar rooms, and student discussion areas. This facility also houses a 200seat multimedia classroom, the Worcester State University's Mary Cosgrove Dolphin Art Gallery, and the Imoigele P. Aisiku, M.D. STEM Center.

## Learning Resource Center

The Learning Resource Center (LRC) brings together an impressive array of campus learning resources including the library, the WSU Archives and Special Collections, Information Technology, academic offices (Communication, Criminal Justice, Visual and Performing Arts, the Honors Program, and the Office of Multicultural Affairs), and more than twenty classrooms and music practice rooms. The LRC also features the Mail Center, Central Receiving, and Publications and Printing Services.

The LRC is the hub for the complex of modern telecommunications and electronic learning facilities provided by the Information Technology department. The campus-wide computer network provides wired and wireless Internet connections for student devices, and for the fully equipped computer lab with Help Desk on the 3rd floor. In addition, the LRC houses WSU's television studios and production facilities, multimedia laboratories, and an instructional center to support the use of multimedia resources in teaching and learning.

## Outdoor Facilities

Worcester State University has the advantage of naturally attractive surroundings. Among its outdoor facilities are an artificial turf athletic field and an eight-lane synthetic track, baseball and softball diamonds, and tennis courts.

## Residence Halls

Residence Halls at Worcester State University provide housing to full-time undergraduate students.

Chandler Village is a unique living area with 63 apartments in 26 interconnected townhouses. The apartments accommodate four, five, eight, nine, ten, or eleven persons and include furnished common living and kitchen areas.

Dowden Hall, more traditional in style, is a five-story residence hall that includes single, double, and triple rooms with study and recreational lounges. There are multipurpose rooms, laundry facilities, and a convenience store.

Sheehan Hall is a facility that accommodates 400 students and features the main campus dining hall overlooking the John F. Coughlin Field. Each unit consists of two double or four single rooms sharing a private bathroom. In addition to housing students, this residence hall contains Health Services, the Office of Residence Life and Housing, a multifunctional room, game room, small fitness center, student lounges, and a communal kitchen.

Wasylean Hall, named for Phillip M. Wasylean II '64, is a six-story, suite-style building with multiple study and common rooms throughout. The suites are designed to accommodate four and six people. Each unit has single and double occupancy bedrooms with furnished common living and kitchen areas. Wasylean Hall is also home to the University Police.

Several housing opportunities exist which offer students the opportunity to live together, take classes together and participate in activities that focus on various special interests (See 'Services for Students' section for more information).

## Sagamore Road Studios

Worcester State University forged an affiliation with the Worcester Center for Crafts in 2009, a center that offers public instruction in Ceramics/Glass/Metals/ Photography, in the art and aesthetics of craft and
creativity, and in the appreciation of the hand-made aesthetic object. The Worcester Center for Crafts is located in two locations: the main Sagamore Road Studios building at 25 Sagamore Road, Worcester, MA 01605 and on the campus of Worcester State University where a Darkroom Photography program is sited.

The WSU Visual \& Performing Arts Department art areas are housed at the Sagamore Road Studios in the same building as the Worcester Center for Crafts. VPA offers two craft center courses as part of its Division of Graduate and Continuing Education curriculum.

## Student Center

The Student Center is available as a resource for the entire Worcester State community and is conveniently situated at the geographical center of the campus. The first floor of the Student Center contains the following resources: Food Court and dining area, Worcester State bookstore, Information Desk, and the Print Center. The first floor also has several meeting/programming spaces including the North/South Auditorium, Blue Lounge, Exhibit Area and One Lancer Place. The second floor houses the Student Center/Student Activities Office, Conference and Event Services, and Commuter Services/ Weekend Programming. Small meeting rooms, WSCW Radio Station and Student Government offices, and the Charter Business TV Lounge - a lounge for commuters and residents with pool tables, pingpong, video games and several TV's - are also located on this floor. The third floor holds several Student Affairs offices including the Vice President of Student Affairs, Career Services, Counseling Office, Dining Services, Judicial Affairs and Veteran's Affairs. Student organization offices including the Student Senate, Student Events Committee, Third World Alliance, the student newspaper, yearbook and more are also located on this floor as well as the Lancer Loft dining area and additional meeting space.

## Sullivan Academic Center

Named for Eugene A. Sullivan, Worcester State president from 1947 to 1970, the Sullivan Academic Center is a primary instructional center on campus. It contains faculty and academic department offices, a large lecture hall (Eager Auditorium), classrooms, and a large attached auditorium. The Sullivan Auditorium provides the setting for a number of formal ceremonies including the annual Senior

Capping. Also located in the Sullivan Academic Center are the Center for the Study of Human Rights and the Center for Teaching and Learning.

## Wellness Center

Worcester State University constructed a 100,000 square-foot Wellness Center which opened in 2016. The complex features a competition gymnasium, twocourt, multi-purpose gymnasium, walking track, twofloor fitness center, three multi-functional exercise rooms, golf simulator and community space.

## Additional Locations of WSU Study

Sagamore Road Studios
25 Sagamore Road
Worcester, MA 01605
Worcester Idea Lab
50 Franklin Street
Worcester, MA 01608
Sever Street Building
51 Sever Street
Worcester, MA 01609

## Change of Catalog Information

This catalog was prepared in the summer of 2023, and published on August 31, 2023, with information available at the time of preparation. Provisions of this catalog are subject to change by order of the Massachusetts Department of Higher Education or the Worcester State University Board of Trustees. It is the policy of Worcester State University to provide advance notice of changes whenever it is reasonable and practical to do so. Changes to the catalog need to be approved by the Associate Vice President for Academic Affairs.

## Community Relations

Worcester State University values its connections with the greater community, which include partnerships with numerous individuals and organizations. The professional staff participates in events sponsored by the Commonwealth of Massachusetts, the City of Worcester, and the local Chamber of Commerce; hosts conferences, legislative meetings, and community breakfasts;
sponsors seminars, lectures, and workshops; and supports a variety of initiatives in the arts and multicultural events. Worcester State University's calendar includes numerous programs and events to which the public is welcomed.

## Campus Communications and Marketing

The Office of Communications and Marketing (MARCOM) handles strategic communications, media and public relations, and serves as the chief spokesperson for the University. The office works closely with other administrative departments to disseminate campus-wide notifications, and invitations to the President's Campus Conversations, a periodic open forum to share updates and to dialogue with the campus community on specific topics important to students, faculty and staff.

The University's marketing team supports integrated marketing campaigns to engage the public and to distinguish Worcester State as the premier public university in Central Massachusetts. Updates to the University's website, advertising, print and digital marketing presence, videography and social media are under their charge. They work closely with the Office of Publications and Printing for consistency in brand management standards for design, print and large-format printing services of the university.

## University Advancement

The Office of University Advancement is responsible for fundraising to support the university's mission, donor relations, and alumni relations. A number of special events and activities are coordinated annually for Worcester State University alumni including Reunion Weekend, Homecoming, and chapter events. Fundraising campaigns provide an array of benefits and services to current students, faculty, and the entire university community. Contributions are used primarily for scholarships, academic awards, laboratory and classroom equipment, educational seminars, faculty research grants, and other support services to retain and promote students on their educational journey. The office publishes an annual donor report and monthly alumni newsletter, manages an online alumni community, and works in partnership with the Office of Communications and Marketing to produce the Worcester Statement.

## Family Educational Rights and Privacy Act

Worcester State University complies fully with the provisions of the Family Educational Rights and Privacy Act (FERPA) of 1974 as amended. This federal law protects the privacy of education records and establishes the rights of students to:

1. Inspect and review their education records within 45 days of the day Worcester State receives a request for access.
Students should submit to the Registrar, dean, head of the academic department or other appropriate official, written requests that identify the record(s) they wish to inspect. The Worcester State University official will make arrangements for access and notify the student of the time and place where the records may be inspected. If the Worcester State University official to whom the request was submitted does not maintain the records, that official shall advise the student of the correct official to whom the request should be addressed.
2. Request the amendment of the education records that the student believes are inaccurate or misleading.
Students may ask Worcester State University to amend a record that they believe is inaccurate or misleading. They should write to the Worcester State University official responsible for the record, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading.
If Worcester State University decides not to amend the record as requested by the student, Worcester State University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
3. To file a complaint with the U.S. Department of Education concerning the alleged failures by Worcester State University to comply with the requirements of FERPA, the name and address of the office that administers FERPA is:

Family Policy Compliance Office • Department of Education

Independence Avenue, SW • Washington, DC 20202-4605

Worcester State University accords all the rights under the law to students who are declared independent. No one outside the institution shall have access to nor will the institution disclose any information from students' educational records without the written consent of students with the exception of the following:

- Worcester State University officials within the institution
- officials of other institutions in which students seek to enroll
- persons or organizations providing students' financial aid
- accrediting agencies carrying out their accreditation function
- persons in compliance with a judicial order
- persons in an emergency in order to protect the health or safety of students or other persons.

All these exceptions are permitted under the Act. A Worcester State University official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. A Worcester State University official is:

- a person employed by Worcester State University in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff)
- a person or company with whom Worcester State University has contracted (such as a consultant, contractor, volunteer or other party to whom Worcester State University has outsourced institutional services or functions)
- a person serving on the Board of Trustees
- a student serving on an official committee, such as a disciplinary or grievance committee, or assisting another school official in performing his or her tasks.

According to the law, a person becomes a student for purposes of FERPA when they are "in attendance" at an institution. This includes attendance in person or remotely by videoconference, satellite, internet or other electronic and telecommunication technologies. At WSU, a student is defined as someone currently or previously enrolled in any
academic offering of the University. This does not include prospective students or applicants to any academic program of the University. A student is an individual who has paid an admission deposit (acceptance fee), registered for classes, or otherwise entered into a contractual relationship with the university to receive instruction. FERPA becomes effective on the first day of classes for those newly admitted students who have scheduled at least one course. A student who accepted an admission offer but did not schedule at least one course, or newly admitted student who cancelled his/her registration either before or after the semester begins, is not covered by FERPA.

At its discretion the institution may provide directory information in accordance with the provisions of the Act to include:

- student's name
- address
- photograph
- date and place of birth
- major field of study
- grade level
- degree
- recent school attended
- enrollment status
- dates of attendance
- weight and height of athletic teams
- honors/awards
- participants in officially recognized activities and sports

Directory information does NOT include a student's social security number or student identification number.

Currently enrolled students may withhold disclosure of directory information by notifying the Registrar in writing of the request prior to the end of the first week of classes in the Fall. Such requests will be honored for the duration of the academic yearSeptember through August; therefore, authorization to withhold directory information must be filed annually with the Registrar. Worcester State University assumes that failure on the part of the student to specifically request the withholding of categories of directory information indicates individual approval of disclosure.

A request to withhold the above data in no way restricts internal use of the material by Worcester State University.

In compliance with the Family Educational Rights and Privacy Act of 1974, as amended, Worcester State University reserves the right to disclose information to parents of a student under 18 and/or the parents of a student who is dependent upon such parents for federal income tax purposes.

## Institutional Learning Outcomes

Worcester State students:

- Demonstrate effective writing, reading, speaking, and listening skills to communicate across different contexts and audiences.
- Critically evaluate information, make connections across disciplines and perspectives, and apply knowledge gained in one situation to new situations.
- Respectfully interact, communicate, and learn from diverse peoples to work towards equity and justice.
- Demonstrate the skills necessary to effectively engage in a diverse workforce and global community including: technological literacy, information literacy, leadership, and adaptability.
- Develop the skills necessary for life-long learning including: curiosity, independence, initiative, and reflection.


## Mission

Worcester State University champions academic excellence in a diverse, student-centered environment that fosters scholarship, creativity, and global awareness. A Worcester State education equips students with knowledge and skills necessary for lives of professional accomplishment, engaged citizenship, and intellectual growth. - See more on our Mission, Vision, \& Core Values page.

## Policy on Nondiscrimination

The University is committed to a policy of nondiscrimination, equal employment opportunity, and affirmative action in its educational programs, activities, and employment practices.

The University is dedicated to providing educational, working and living environments that value the diverse backgrounds of all people. The University does not unlawfully discriminate in admission or access to, or treatment or employment in, its educational programs and activities on the basis of race, color, religion, national origin, age, disability, gender, sexual orientation, gender identity, gender expression, genetic information, marital or parental status, or veteran status.

The University prohibits unlawful discrimination or discriminatory harassment on all of those bases. Such behaviors violate the University's NonDiscrimination, Harassment, and Retaliation Policy, will not be tolerated, and may result in disciplinary action up to and including termination or expulsion. It is also the policy of the University to provide each student, employee, and other persons having dealings with the institution an environment free from unlawful sexual violence and all forms of misconduct on the basis of gender. The University prohibits rape, statutory rape, sexual assault, sexual exploitation, incest, sexual harassment, gender-based harassment, domestic violence, dating violence, stalking, and retaliation. These behaviors violate the University's Sexual Violence Policy, will not be tolerated, and may result in disciplinary action up to and including termination or expulsion.

The University Non-Discrimination, Discriminatory Harassment, and Retaliation Policy and Sexual Violence Policy applies in all University programs and activities, including, but not limited to athletics, instruction, grading, housing, and employment. They apply to all members of the campus communities, including, but not limited to students, faculty, librarians, staff, visitors, contractors, and applicants for employment or admission. They also apply to offcampus conduct that negatively affects a community member's experience in the University environment.

The University has appointed an Equal Opportunity Officer ("EO Officer") to oversee its compliance with this plan as well as the state and federal nondiscrimination and equal opportunity laws. Anyone with questions, concerns or complaints regarding discrimination, discriminatory harassment, or retaliation may contact the EO Officer. Any person with questions or concerns about any form of
sexual violence, sexual harassment, gender-based harassment, domestic violence, dating violence, stalking, and/or retaliation may also contact:

Discrimination: Maria Isabel Gariepy,
Executive Director of Affirmative Action and Equal Opportunity (EO Officer): 508-929-8784

Student Accessibility: Fran Manocchio, Director of Student Accessibility Services: 508-929-8733

Title IX / Sexual Violence: Jennifer Quinn, Director of Title IX: 508-929-8243

The U.S. Department of Education Office for Civil Rights, 33 Arch Street 9th Floor, Boston, MA 02119-1424; (617) 289-0111, Fax (617) 289-0150, TDD (877) 521-2172; OCR.Boston@ed.gov or the university's Title IX coordinator. The Title IX coordinator at each university is responsible for the university's compliance with Title IX and the administration of the university's sexual violence policy.

## TITLE IX/Policies and Inquiries

Worcester State University is committed to creating and maintaining an academic and work environment that is free from sex discrimination (including discrimination on the basis of sex, sexual orientation, gender identity, and gender expression) and sexual misconduct (including sexual harassment, sexual assault, domestic violence, dating violence, and stalking).

Adherence to this commitment is ensured by University policies against discrimination and compliance with The U.S. Department of Education's Office for Civil Rights (OCR) Title IX of the Education Amendments of 1972. Title IX protects people from discrimination based on sex in education programs or activities that receive federal financial assistance.

Title IX states:
No person in the United States shall, on the basis of sex, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any education program or activity receiving Federal financial assistance.

Title IX Scope:
Title IX prohibits sex discrimination in all university programs and activities including but not limited to admissions, recruiting, financial aid, academic programs, student services, counseling and guidance, discipline, treatment of pregnant and parenting students, class assignment, grading, recreation, athletics, housing, and employment.

The Title IX coordinator is charged with managing the University's response to reports of sex discrimination, which includes reports of sexual assault, sexual harassment, gender-based harassment, dating violence, domestic violence, stalking, and retaliation. Guided by University and federal procedures, the Title IX coordinator aims to ensure that the University's response promptly, effectively, and equitably addresses the incident, prevents its recurrence, and remedies the effects of all forms of such prohibited conduct. In some instances, Title IX issues may impact a student's academic performance. Eligible recipients of academic accommodations will be determined and coordinated by the Title IX coordinator.

Inquiries regarding Title IX may be referred to the Title IX coordinator, Jennifer Quinn, at Jquinn@worcester.edu, wsu_titleix@worcester.edu, 508-929-8243, or in-person in the Student Center, room 344. A report may also be filed at this link: https://cm.maxient.com/reportingform.php? WorcesterStateUniv\&layout_id=7

Reports may be submitted at any time, even during non-business hours, but please note the Title IX coordinator does not monitor email on a 24 -hour basis and may not review on weekends and evenings. Therefore, contact may not be available during nonbusiness hours except by referral from University Police. If you are not safe, please contact University Police immediately at 508-929-8911.

## Undergraduate Academic Programs

Worcester State University offers Bachelor of Arts (BA) and Bachelor of Science (BS) degrees, as well as numerous minors, at the undergraduate level. A list graduate level programs can be found at catalog.worcester.edu/graduate/programs/.

| Program | Major | Minor | Sponsoring <br> Department |
| :---: | :---: | :---: | :---: |
| Actuarial Mathematics |  | $\begin{aligned} & \text { X } \\ & \text { (p. 274) } \end{aligned}$ | Mathematics |
| Addictions Counseling |  | $\begin{aligned} & X \\ & (\text { p. 111) } \end{aligned}$ | Interdisciplinary Program |
| African and African Diaspora Studies |  | $\begin{aligned} & \text { X } \\ & \text { (p. 116) } \end{aligned}$ | Interdisciplinary Studies |
| Art | $\begin{aligned} & \text { BA } \\ & (\text { p. 313) } \end{aligned}$ | $\begin{aligned} & \text { X } \\ & \text { (p. 313) } \end{aligned}$ | Visual \& Performing Arts |
| Asian Studies |  | $\begin{aligned} & \text { X } \\ & \text { (p. 116) } \end{aligned}$ | Interdisciplinary Program |
| Astronomy |  | (p. 305) | Earth, Environment, and Physics |
| Biology | $\begin{aligned} & \text { BS } \\ & \text { (p. 186) } \end{aligned}$ |  | Biology |
| Biotechnology | BS <br> (p. 197) |  | Biology |
| Business Administration | $\begin{aligned} & \text { BS } \\ & \left(\text { p. 332 }{ }^{1}\right. \end{aligned}$ | $\begin{aligned} & \text { X } \\ & \text { (p. 338) } \end{aligned}$ | Business <br> Administration <br> \& Economics |
| Cellular and Molecular Biology |  | (p. 188) | Biology |
| Chemistry | BS <br> (p. 206) | $\begin{aligned} & \text { X } \\ & \text { (p. 210) } \end{aligned}$ | Chemistry |
| Civic <br> Engagement |  | $\begin{aligned} & \text { X } \\ & \text { (p. 430) } \end{aligned}$ |  <br> Political <br> Science |
| Communication | $\begin{aligned} & \text { nBA } \\ & (\text { p. } 344)^{1} \end{aligned}$ | $\begin{aligned} & \text { X } \\ & \text { (p. 349) } \end{aligned}$ | Communication |
| Communication Education |  | $\begin{aligned} & \text { X } \\ & \text { (p. 344) } \end{aligned}$ | Communication |
| Communication <br>  <br> Disorders | BS (p. 216) | $\begin{aligned} & \text { X } \\ & \text { (p. 218) } \end{aligned}$ | Communication <br>  <br> Disorders |
| Composition and Music Technology |  | $\begin{aligned} & \text { X } \\ & \text { (p. 406) } \end{aligned}$ | Visual \& Performing Arts |
| Computer <br> Science | BS <br> (p. 229) | $\begin{aligned} & \text { X } \\ & \text { (p. 235) } \end{aligned}$ | Computer Science |
| Criminal Justice | $\begin{aligned} & \text { BS } \\ & (\text { p. 357) } \end{aligned}$ | $\begin{aligned} & \text { X } \\ & \text { (p. 358) } \end{aligned}$ | Criminal Justice |


| Data Science |  | $\begin{aligned} & \text { X } \\ & \text { (p. 236) } \end{aligned}$ | Computer Science |
| :---: | :---: | :---: | :---: |
| Disabilities Studies |  | $\begin{aligned} & \text { X } \\ & \text { (p. 219) } \end{aligned}$ | Communication <br>  <br> Disorders |
| Early <br> Childhood <br> Education | BS <br> (p. 131) |  | Education |
| Early <br> Education and Care | $\begin{aligned} & \text { BS } \\ & \text { (p. 135) } \end{aligned}$ |  | Education |
| Ecology |  | $\begin{aligned} & \text { X } \\ & \text { (p. 189) } \end{aligned}$ | Biology |
| Economics | $\begin{aligned} & \text { BS } \\ & \text { (p. 363) } \end{aligned}$ | $\begin{aligned} & \text { X } \\ & \text { (p. 366) } \end{aligned}$ | Business <br> Administration <br> \& Economics |
| Education Studies | $\begin{aligned} & \text { BS } \\ & \text { (p. 137) } \end{aligned}$ | $\begin{aligned} & \text { X } \\ & \text { (p. 138) } \end{aligned}$ | Education |
| Elementary Education | BS <br> (p. 139) |  | Education |
| English | $\begin{aligned} & \text { BA } \\ & (\text { p. } 377)^{1} \end{aligned}$ | $\begin{aligned} & \text { X } \\ & \text { (p. 382) } \end{aligned}$ | English |
| Environmental Science | BS <br> (p. 241) | $\begin{aligned} & \text { X } \\ & \text { (p. 242) } \end{aligned}$ | Earth, <br> Environment \& Physics |
| Environmental <br> and <br> Sustainability <br> Studies |  | $\begin{aligned} & \text { X } \\ & \text { (p. 147) } \end{aligned}$ | Interdisciplinary Studies |
| Ethnic Studies |  | $\begin{aligned} & \text { X } \\ & \text { (p. 149) } \end{aligned}$ | Interdisciplinary <br> Program |
| Forensic Science |  | $\begin{aligned} & \text { X } \\ & \text { (p. 111) } \end{aligned}$ | Interdisciplinary Studies |
| Geography | BS <br> (p. 253) | $\begin{aligned} & \text { X } \\ & \text { (p. 256) } \end{aligned}$ | Earth, Environment \& Physics |
| Geospatial Information Science |  | X | Earth, <br> Environment \& Physics |
| Global Studies |  | $\begin{aligned} & \text { X } \\ & \text { (p. 153) } \end{aligned}$ | Interdisciplinary Program |
| History | $\begin{aligned} & \text { BA } \\ & (\text { p. } 401)^{1} \end{aligned}$ | $\begin{aligned} & \text { X } \\ & \text { (p. 403) } \end{aligned}$ |  <br> Political <br> Science |
| Human <br> Development |  | $\begin{aligned} & \text { X } \\ & \text { (p. 440) } \end{aligned}$ | Psychology |


| Human Rights and Social Justice |  | X | History \& Political | Philosophy |  | $\begin{aligned} & X \\ & (p .421) \end{aligned}$ | Philosophy |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Science | Physics |  |  | Earth, |
| Intergeneration: <br> Studies and <br> Community <br> Service |  |  | X | Urban Studies |  |  | (p. 305) | Environment \& Physics |
|  |  | Political Science |  |  | $\begin{aligned} & \text { BA } \\ & \text { (p. 432) } \end{aligned}$ | $\begin{aligned} & X \\ & (p .432) \end{aligned}$ | History \& Political |
| Journalism |  | $\begin{aligned} & X \\ & (p .114) \end{aligned}$ | Interdisciplinary |  |  |  | Science |
|  |  | Studies | Pre-Law |  | X | Political |
| Latin American and Latinx Studies |  |  | $\begin{aligned} & X \\ & \text { (p. 505) } \end{aligned}$ |  |  |  | (p. 432) | Science |
|  |  | Languages |  | Psychology | $\begin{aligned} & \text { BS } \\ & (\text { p. } 442)^{1} \end{aligned}$ | $\begin{aligned} & X \\ & (\text { p. 446) } \end{aligned}$ | Psychology |
| Liberal Studies | BA/BS$(\text { p. 166 })^{1}$ |  | Interdisciplinary Program | Psychobiology |  | $\begin{aligned} & x \\ & (p .441) \end{aligned}$ | Psychology \& Biology |
| Literature |  | X | English | Public Health | BS | X | Healt |
| Mathematics | BS | X | Mathematics |  | (p. 265) ${ }^{1}$ | (p.269) | Sciences |
|  | (p. 280) | (p. 282) |  | Public Health | BS/BSN |  | Healt |
| Mathematics BS for Elementary (p. 274) Education |  |  | Mathematics | (WSU)/Nursing (MCPHS <br> University) | (p. 263) |  | Sciences/ <br> MCPHS <br> University |
| Medicinal Chemistry |  | $\begin{aligned} & \text { IC } \\ & \text { (p. 209) } \end{aligned}$ | Chemistry | Public History |  | $\begin{aligned} & X \\ & (p .403) \end{aligned}$ | History \& Political |
| Middle East Studies |  | X | History \& |  |  |  | Science |
|  |  |  | Political Science | Secondary Education |  | $\begin{aligned} & X \\ & (p .144) \end{aligned}$ | Education |
| Middle School Education |  | $\begin{aligned} & X \\ & (p .142) \end{aligned}$ | Education | Social Work and Social |  | $\begin{aligned} & X \\ & (p .475) \end{aligned}$ | Urban Studies |
| Middle School Mathematics |  | X | Mathematics | Policy |  |  |  |
|  |  | (p. 282) |  | Sociology | BS | X | Sociology |
| Music |  | X | Visual \& |  | (p. 452) ${ }^{1}$ | (p. 453) |  |
|  |  | (p. 405) | Performing <br> Arts | Spanish | $\begin{aligned} & \text { BA } \\ & \text { (p. 507) } \end{aligned}$ | $\begin{aligned} & X \\ & (p .519) \end{aligned}$ | World <br> Languages |
| Narrative Studies of Health and Body |  | $\begin{aligned} & X \\ & (\text { p. 384) } \end{aligned}$ | English | Spanish for Health Professionals |  | $\begin{aligned} & X \\ & (\text { p. 519) } \end{aligned}$ | World Languages |
|  |  |  |  | Spanish | BA |  | World |
| Normal and Disordered Speech, Language and Hearing |  | X | Communication | Translation | (p. 514) |  | Languages |
|  |  | (p. 220) | Sciences \& Disorders | STEM |  | $\begin{aligned} & X \\ & (p .211) \end{aligned}$ | Chemistry |
|  |  |  |  | Theatre | $\begin{aligned} & \text { BA } \\ & \text { (p. 454) } \end{aligned}$ | $\begin{aligned} & X \\ & (p .454) \end{aligned}$ | Visual \& Performing |
| Nursing | $\begin{aligned} & \text { BS } \\ & \text { (p. 287) } \end{aligned}$ |  | Nursing | Urban Studies |  |  | Arts |
| Occupational Studies | $\begin{aligned} & \text { BS } \\ & \text { (p. 301) } \end{aligned}$ |  | Occupational |  | $(\text { p. 476 })^{1}$ | (p. 478) |  |
|  |  |  | Therapy | Visual \& | BA |  |  |
| Pharmaceutical Science |  | $\begin{aligned} & X \\ & (p .211) \end{aligned}$ | Chemistry | Performing <br> Arts | (p. 314) |  | Performing <br> Arts |


| Women's, | X | Interdisciplinary |
| :--- | :--- | :--- |
| Gender, and |  |  |
| Sexuality |  |  |
| Studies | (p. 169) | Program |
| Writing | X <br> (p. 384) | English |
|  |  |  |
| ${ }^{1}$ Majors that are also offered in the evening. |  |  |

## Admissions

Worcester State University seeks to enroll students who will succeed academically, thrive socially, and contribute meaningfully to the campus community. More information can be found in this section of the catalog.

- Admission Following Withdrawal from Worcester State or Leave of Absence (p. 18)
- Admission to Non-Degree Programs (p. 19)
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## Admission Following Withdrawal from Worcester State or Leave of Absence

Matriculated students who fail to take a course during a calendar year will be administratively withdrawn from Worcester State. Students who wish to permanently withdraw from Worcester State or take a temporary leave of absence must complete appropriate forms in the Academic Success Center. If the withdrawal or leave of absence is filed prior to the last day to withdraw from courses for the term, "W" will be recorded on the student's record. Students who file for leave of absence or withdrawal after the last day to withdraw from courses for the term may petition if they feel circumstances warrant the recording of "W" for all courses enrolled for that term. Normally, a leave of absence is for one semester; however, a student may have up to one year to return to Worcester State. Failure to return at the specified time will result in an administrative withdrawal from Worcester State.

## Re-activation of Degree Status

There are two procedures in which students can reactivate their matriculation status at Worcester State after withdrawal/non-continuous attendance/ dismissal: readmission and reinstatement.

## Readmission

If students have accumulated any undergraduate, college-level credits at a regionally accredited college/university prior to seeking reactivation of the degree status and are not applying for the Nursing and Occupational Studies majors, they should apply for readmission through the Admissions Office.

Applications are available in the Admissions Office (Administration Building, Room 248) and online at http://www.worcester.edu/apply.

## Reinstatement

If students have not accumulated any undergraduate, college-level credits at a regionally accredited college/university prior to seeking reactivation of their degree status and are not applying for Nursing and Occupational Studies majors, they should apply for reinstatement directly through the Registrar's Office (Administration Building, Room 107). Deadline for Fall-July 1; Spring-November 1; Summer-April 1. It is each student's responsibility to supply and update the following documents if not already on file.

- final high school transcript
- completed proof of residency form
- official transcript of all courses completed at each post-secondary institution attended (excluding Worcester State).

Upon completion of any missing data, the student's file will be reviewed and a plan for academic persistence and success will be developed. Students then must meet with an advisor in the declared major to register for classes.

## Academic Progress after reinstatement/readmission

It is expected that students must attain a minimum GPA of 2.0 for each semester following their return. Failure to maintain a 2.0 overall average will result in a second separation from Worcester State not subject to appeal.

All reinstated students follow the degree, program, and graduation requirements from the catalog in effect at the time of their reactivation, not those in effect at the time of their withdrawal. Students need to attend Worcester State for at least one semester prior to graduation certification.

## Admission to Non-Degree Programs

Applicants who have already earned a bachelor's degree and wish to complete a second major, including all education license programs, should specifically request an undergraduate application form. Applicants who have completed a Non-

Licensure program in Early Childhood Education may apply for a Non-Degree Licensure Education program. Such applicants must have a minimum of three (3) years teaching experience and have completed the equivalent of a second major in liberal arts and sciences.

## Advanced Placement (AP) Guidelines

| AP Exam | Score | wSU Course Equivalent | Credits |
| :---: | :---: | :---: | :---: |
| Art History | 3,4,5 |  <br> AR-113 | 6 |
| Art 3D Design | 3,4,5 | AR-122 | 3 |
| Biology | 3,4,5 | Biology, no <br> specific <br> classes; LASC <br> NSP credit | 6 |
| Calculus AB | 3,4,5 | MA-200 | 4 |
| Calculus BC | 3, 4, 5 | MA-201 | 4 |
| Calculus AB Subscore (score given with Calculus BS exam) | 3,4,5 | MA-200 | 4 |
| Chemistry | 3,4,5 | CH-120 | 4 |
| Computer Science A | $3,4,5$ | CS-140 | 4 |
| Computer Science Principles | 3,4,5 | CS-101 | 3 |
| English <br> Language/ <br> Composition | 3,4,5 | $\begin{aligned} & \text { EN-101 \& } \\ & \text { EN-102 } \end{aligned}$ | 6 |
| English Literature/ Composition | 3, 4, 5 | EN-105 | 3 |
| Environmental Science | 3,4,5 | Environmental Science <br> Elective; LASC NSP credit | 3 |
| European History | 3,4,5 | HI-1XX | 6 |
| Government \& Politics of the US | 3,4,5 | PO-110 | 3 |
| Government <br> \& Politics <br> Comparative | 3,4,5 | PO-220 | 3 |
| Human Geography | 3, 4, 5 | GE-102 | 3 |
| French | 3, 4, 5 | $\begin{aligned} & \text { FR-101 \& } \\ & \text { FR-102 } \end{aligned}$ | 6 |


| German | $3,4,5$ | World <br> Language Elective | 6 |
| :---: | :---: | :---: | :---: |
| Italian | 3, 4, 5 |  <br> WL-211; LASC <br> TLC credit | 6 |
| Spanish | $3,4,5$ | $\begin{aligned} & S P-210 \& \\ & S P-211 \end{aligned}$ | 6 |
| Spanish Lit | 3,4,5 | SP-1XX | 3 |
| Microeconomics | 3,4,5 | EC-110 | 3 |
| Macroeconomics | 3,4,5 | EC-120 | 3 |
| Music Theory | 3,4,5 | MU-100 | 3 |
| Physics B ${ }^{1}$ | 3,4,5 | $\begin{aligned} & \text { PY-221 \& } \\ & \text { PY-222 } \end{aligned}$ | 8 |
| Physics 1 - <br> Algebra based sequence | 4, 5 | PY-221 | 4 |
| Physics 2 - <br> Algebra based sequence | 4,5 | PY-222 | 4 |
| Physics C - <br> Mechanics | 4, 5 | PY-241 | 4 |
| Physics C- <br>  <br> Magnetism | 4, 5 | PY-242 | 4 |
| Psychology | 3,4,5 | PS-101 | 3 |
| Statistics | 3,4,5 | MA-150 | 3 |
| Studio Art | 3,4,5 | AR-140 | 3 |
| Studio Art 2D Design | 3, 4, 5 | AR-123 | 3 |
| United States History | $3,4,5$ | $\mathrm{HI}-111$ \& HI-112 | 6 |
| World History | 3,4,5 | HI-103 \& HI-104 | 6 |

Updated May 2020

## Alternatives for Individual Development (A.I.D.)

The Alternatives for Individual Development Program (A.I.D.) is an alternative admissions program at WSU that provides educational assistance to underrepresented prospective students who demonstrate the desire to succeed in college, including those who are ALANA/BIPOC (African, Latine, Asian, Native

American and/or Black, Indigenous, People of Color), low income, and/or would be the first in their families to attend college.

To be eligible, students must be incoming firstyear students, meet the minimum admissions requirements, be a Massachusetts resident, and a U.S. Citizen and/or permanent resident. To apply, complete an undergraduate application and select "Yes" to the A.I.D. question on the application. Letters of recommendation from a school counselor and a high school teacher are required to complete the application.

## American Council on Education (ACE) College Credit Recommendation Service

Training programs in professional settings, industry, the armed forces and other institutions, offer educational opportunities that may be similar in content to Worcester State University courses. Transfer credit may be awarded for professional training programs through credit recommendations made by organizations that have evaluated such programs on the basis of college-level learning. The American Council on Education is the largest organization that evaluates training programs. Students who have completed ACE-evaluated programs, including military service, are encouraged to request an official ACE Transcript for evaluation.
Students may not receive transfer credit for professional training if they have already received transfer credit for similar learning at colleges previously attended. Information on professional trainings that have been evaluated and transcript services can be found at http://www.acenet.edu/ credit.

## Application Process

Directions for First-Year Applicants
Students may apply using the Common Application or Worcester State application at http:// www.worcester.edu/apply.

Applications may be obtained from the Admissions Office, Worcester State University, 486 Chandler Street, Worcester, MA 01602-2597, 508-929-8040.

Each applicant must submit the following materials:

- A completed Common Application or Worcester State application form
- Payment of an application fee: $\$ 50$ for all applicants*
- An official copy of the high school transcript including first-quarter senior grades (Transcripts are deemed official only when sent directly to the Admissions Office from the high school)
- An official copy of an SAT or ACT score report, if not applying as a test-optional applicant**. Student's whose language of instruction is not English, must submit TOEFL, IELTS or a comparable exam score report. Test results should be submitted directly to Worcester State from the testing agency.
*The undergraduate application fee is waived for students who complete an official on-campus visit through the Admissions Office.
**Worcester State will accept unofficial SAT or ACT scores as part of the admissions process from applicants who have attended high school in the United States. The essay/writing scores are not required. Official SAT or ACT scores will be required (if available) as part of the enrollment process. Students may self-report their test scores on the application or by providing a screen shot of their score report. Official test scores include those sent directly by the testing agency or by a school counselor.

NOTE: First-year applicants may opt-out from submitting SAT or ACT scores. Refer to our testoptional policy at http://www.worcester.edu/testoptional.

High school students must request an official high school transcript that includes at least the first three years of high school. Also, a final high school transcript must be requested at the time of graduation that indicates successful completion of the requirements to graduate from high school. The Admissions Office must receive this official, final high school transcript before registration for courses and the final award of financial aid is approved. All transcript materials requested by the applicant
become the property of Worcester State and cannot be released to the applicant or to other institutions, agencies, or individuals.

## First-Year Priority Application Filing Dates

All materials should be submitted as early as possible. Preferred postmarked filing dates are as follows:

Fall Semester Early November 15
Action (first-year
applicants only)
Nursing (BSN) and January 15 (firm)
Occupational Studies
(BSOS) - Fall only
Fall Semester Regular
March 1
Decision (September entrance)

Spring Semester (January November 15 entrance)

After these dates, contact the Admissions Office to determine if applications are still being accepted. Please note that certain majors may not be available to students completing their applications after the priority filing dates.

All pertinent non-refundable deposits and the orientation fee are due on or before May 1 for those students who meet the priority deadlines.

No Spring applications will be accepted for Nursing (BSN - track I) or Occupational Studies (BSOS).

## Directions for Transfer Student Applicants

Transcripts from colleges or universities previously attended are the primary factor in determining acceptance to Worcester State. To be considered a transfer applicant, a student must have successfully completed the requirements at a regionally accredited college or university. The following materials must be supplied:

- A completed Common Application or Worcester State application form.
- Payment of an application fee: $\$ 50$ for all applicants*.
- An official final high school transcript, indicating proof of graduation from an accredited high school or a high school equivalency certificate indicating the test scores received. These must be received by the Admissions Office before clearance for registration or the award of financial aid is approved (required of all students excluding those who've already earned an Associate's or Bachelor's degree).
- An official transcript of all courses completed at each post-secondary institution attended (transcripts are deemed official only when sent directly to the Admissions Office from the previous colleges or universities)**.
- Transcripts and other documents submitted in languages other than English must be accompanied by an English translation and course-by-course evaluation (if applicable) from a recognized agency or organization. For a list of approved evaluating agencies please contact the Admissions Office. Students wishing to transfer in credit completed at a non-U.S. institution must be prepared to submit a course description and/ or syllabus to the Admissions Transfer Center in order to be granted Worcester State equivalent course credit.
- TEAS exam scores for students applying into Nursing - Track 1 (BSN) only. The TEAS is waived for second degree applicants.
- Three NACE I exam scores for students applying into Nursing - Track III (RN-to-BSN) only: Foundations of Nursing, Nursing Care of the Child, and Nursing Care for the Childbearing Family.
*The undergraduate application fee is waived for MassTransfer applicants and students who complete an official on-campus visit through the Admissions Office.
**Failure to disclose any prior college/university experience during the admissions process could be considered a misrepresentation of a student's academic history, and - if accepted - could result in an admission offer being rescinded.

| Spring Semester <br> (January) | November 15 |
| :--- | :--- |
| Fall Semester | June 1 |
| (September) |  |
| Track I Nursing (BSN) <br> (Fall only - limited space <br> into the first-year level) |  |
| Track III LPN to BSN (Fall <br> only) | February 15 |
| Track II RN to BSN (Fall | May 1 |
| only) |  |

After these dates, contact the Admissions Office to determine if applications are still being accepted. Please note that certain majors may not be available to students completing their applications after the priority filing dates.

All pertinent non-refundable deposits and the orientation fee are due on or before May 1 for those students who meet the priority deadlines.

## College Level Examination Program (CLEP)

| Subject | Passing WSU Course <br> Score <br> Equivalent(if <br> Equivalent) | Credits |
| :--- | :---: | :---: | :---: |
| Business |  |  |

## Transfer Priority Application Filing Dates

All materials should be submitted as early as possible. Preferred postmarked filing dates are as follows:

| American Literature with Essay |  | LASC TLC - <br> Thought, Language, | 6 | American Government | 50 | PO-110 | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | Culture (p. 61) <br> English Humanities <br> Elective |  | History of the US 1: <br> Early Colonization to 1877 |  | HI-111 | 3 |
|  |  | Not accepted for English major/ minor |  | History of the US 2: 1856 to Present |  | HI-112 | 3 |
|  <br> Interpreting <br> Literature with <br> Essay | 50 | LASC TLC - <br> Thought, Language, Culture (p. 61) <br> English Humanities Elective <br> Not accepted for English major/ minor | 6 | Human Growth \& Development | 50 | PS-210 | 3 |
|  |  |  |  | Introduction to Educational Psychology | 50 | ED-250 ${ }^{2}$ | 3 |
|  |  |  |  | Introductory Psychology | 50 | PS-101 | 3 |
|  |  |  |  | Introductory | 50 | SO-100 | 3 |
| College | 50 | EN-101 | 3 | Sociology |  |  |  |
| Composition |  |  |  | Principles of | 50 | EC-120 | 3 |
| English | 50 | EN-101 | 3 | Macroeconomics |  |  |  |
| Composition with Essay ${ }^{1}$ |  |  |  | Principles of Microeconomics | 50 | EC-110 | 3 |
| College Composition Modular |  | Not Accepted | NONE | Social Sciences \& History | 50 | LASC GP - Global Perspectives (p. 51) | 6 |
| English Literature with Essay | 50 | LASC TLC - <br> Thought, Language, Culture (p. 61) | 6 |  |  | LASC - USW - US \& Its Role in the World General Elective |  |
|  |  | English Humanities Elective <br> Not accepted for English major/ |  | Western Civilization I: Ancient Near East to 1648 |  | LASC GP - Global Perspectives (p. 51) History Elective | 3 |
|  |  | minor |  | Western Civilization |  | LASC GP - Global | 3 |
| Freshman College Composition |  | Not Accepted | NONE | II: 1648 to Present |  | Perspectives (p. 51) |  |
| Humanities | 50 | LASC TLC - <br> Thought, Language, Culture \& Creative Arts (p. 46) General Elective | 6 |  |  | History Elective |  |
|  |  |  |  |  | ien | Mathematics |  |
|  |  |  |  | Biology | 50 | LASC NSP - <br> Natural Systems <br> \& Processes | 6 |
|  | Foreign Languages |  |  |  |  | (p. 58) |  |
| French Language, Level 1 | 50 | FR-101 \& FR-102 | 6 |  |  | Biology Elective |  |
|  |  |  |  | Calculus | 50 | MA-200 | 4 |
| French Language, Level 2 | 62 | FR-101, FR-102, <br> FR-210, \& FR-211 | 12 | Chemistry | 50 | LASC NSP - <br> Natural Systems | 4 |
| German Language, Level 1 |  | Foreign Language <br> Elective WL-XXX | 6 |  |  | \& Processes (p. 58) |  |
| German Language, Level 2 | 62 | Foreign Language | 12 |  |  | General Elective |  |
|  |  |  |  | College Algebra | 50 | MA-180 | 3 |
| Spanish Language, Level 1 |  | SP-101 \& SP-102 | 6 |  |  |  |  |
| Spanish Language, Level 2 |  | SP-101, SP-102, SP-210, \& SP-211 | 12 |  |  |  |  |


| College | 50 | LASC QR/MA <br> - Quantitative | 3 |
| :--- | :--- | :--- | :--- |
| Mathematics |  | Reasoning <br> (p. 59) |  |
|  |  | Mathematics <br> Elective |  |
|  |  | Not acceepted for <br> Math major/minor |  |
| Pre-calculus | 50 | MA-190 | 4 |
| Natural Sciences | 50 | LASC NSP - <br> Natural Systems <br> \& Processes <br> (p. 58) <br> General Elective | 3 |
|  |  |  |  |

${ }^{1}$ No longer available but credits can be accepted
${ }^{2} 10$ hrs clinical fieldwork per department guidelines are required

## Commonwealth Commitment

This program allows students to earn an Associate's Degree in specific academic programs at any of the Massachusetts community colleges and transfer to complete a Bachelor's Degree from Worcester State University. Students earn an Associates and Bachelor's degree in four and a half years with the possibility of a tuition and fee rebate. To qualify, students must be full-time, non-residential, in-state residents, college-ready, and maintain continuous enrollment and a cumulative 3.0 grade point average. For more information, visit http:// www.worcester.edu/commonwealth-commitment or email transfer@worcester.edu.

## Reverse Transfer

Through Reverse Transfer, students who made progress toward an associate degree at a Massachusetts community college prior to transferring may apply credit earned at a Massachusetts state university or University of Massachusetts campus back to their community college to complete associate degree requirements. Massachusetts community college students are eligible if they have earned at least 30 collegelevel credits with a minimum cumulative GPA of 2.00 without earning an associate degree. For more information, including additional eligibility requirements, please visit http://www.mass.edu/ reversetransfer.

## Delayed (deferred) Enrollment

A student may apply for admission and, if accepted, decide to delay their enrollment. Students must submit a request in writing to the Admissions Office specifying which start term they intend to enroll (which may not to exceed one year from the original accepted start term). Students who request to delay their admission forfeit any merit scholarship, financial aid, and/or housing offered with the original acceptance. Requesting a delayed enrollment does not guarantee a student's later acceptance for the deferred start term. A student's application will be reviewed in the context of the newer applicant pool. More selective admission standards may apply. Students are encouraged to supply a statement explaining their activities while not enrolled in a postsecondary institution. As part of the re-evaluation process, students will be reconsidered for merit scholarships (Fall start only), financial aid, and housing.

## DHE Massachusetts High School Unit Requirements (Academic Courses)

| Subject | Units |
| :--- | :--- |
| English | 4 |
| Mathematics | 4 (Algebra I \& II <br> and Geometry or <br> Trigonometry, or <br> comparable coursework <br> and math in the senior <br> year) |
| Natural Science | 3 (including 3 with lab) |
| Social Science | 2 (including U.S. History) |
| Foreign Language | 2 (in a single language) |
| Electives | 2 |

## Minimum Grade Point Average in Required Courses

The grades earned in academic courses are recalculated into a grade point average (GPA). In recalculating GPA, extra weight is received for honors (0.5) and Advanced Placement (1.0) courses. Non-
academic courses are not included; therefore, the GPA calculated by Worcester State may be different than the GPA calculated by a high school.

Grades will be converted to a 4.0 scale, where " A " = $4.0, ~ " B$ " $=3.0, " C "=2.0$, and " $\mathrm{D} "=1.0$. On this scale, a 3.0 GPA is equal to a " B " average. A 3.0 minimum GPA is required unless the student attains one of the GPA/ SAT combinations listed in the chart below.

## SAT or ACT Test Requirement

Worcester State University no longer requires the submission of SAT or ACT scores. First-year applicants may opt-out from submitting SAT or ACT scores. Refer to our test-optional policy at http:// www.worcester.edu/test-optional. The decision to not submit SAT or ACT scores will not negatively impact a student's consideration for admission, merit award or an honors invitation.

For students who choose to submit test scores, Worcester State will accept unofficial SAT or ACT scores as part of the admissions process from applicants who have attended high school in the United States. The essay/writing scores are not required. Official SAT or ACT scores will be required (if available) as part of the enrollment process. Students may self-report their test scores on the admissions application or by providing a screen shot of their score report. Official test scores include those sent directly by the testing agency or by a school counselor. For students with a recalculated high school grade point average above a 3.0, no minimum SAT or ACT score is needed. However, for those applicants whose recalculated high school grade point average below a 3.0, the following table may be used in determining eligibility for admission:

| GPA | SAT $^{\mathbf{1}}$ | ACT |
| :--- | :--- | :--- |
| $2.51-2.99$ | 990 | 19 |
| $2.41-2.50$ | 1030 | 20 |
| $2.31-2.40$ | 1070 | 21 |
| $2.21-2.30$ | 1110 | 22 |
| $2.11-2.20$ | 1140 | 23 |
| $2.00-2.10$ | 1180 | 24 |

[^0]No applicant with a recalculated high school GPA less than 2.00 will be admitted to a state university.

NOTE: The Massachusetts Department of Higher Education Scale is subject to change. Students who have graduated from high school more than three years ago and have never attended college should apply as non-traditional students (see section on next page) and may present SAT/ACT scores at their option.

## Documentation of High School Diploma or Equivalency

All new incoming matriculating students* must provide proof of completing high school by providing documentation of a high school diploma or equivalency: The University will accept any of the following:

- An official high school transcript sent directly from the high school stamped with the date of graduation.
- An official GED or HiSET score reports sent directly from the issuing agency.
- Original high school diploma or original GED certificate brought to the Admissions Office (photocopy retained).
- For records that are unobtainable or destroyed, applicants may submit a letter from the school superintendent (on official letterhead and with high school seal) indicating date of graduation and/or completion of high school or home school education.
- If a letter from a school superintendent is not available for missing or destroyed records, students may submit a signed statement explaining lack of availability to the Director of Admissions for consideration.
- Those documents awarded from a country outside of the U.S. must be translated and evaluated to U.S. standards through a credential evaluating agency.
- The acceptability of a high school diploma is determined by an evaluation of the institution's accreditation and curriculum. A high school diploma may be accepted if recognized by the state in which it was issued as offering a
curriculum consistent with state law. Certificates of completion and diplomas representing nonacademic curriculum will not be accepted.
*Students who have already earned an Associates or Bachelors degree are exempt from submitting an official final high school transcript.


## Evening Undergraduate Course Offerings

Continuing Education undergraduate course offerings are available for matriculated and non-matriculated students. Matriculated students have the ability to register for evening Continuing Education classes during regular pre-registration periods for Fall and Spring semesters but may incur additional costs in tuition and fees. The Student Accounts Office can assist in determining if additional costs will be incurred. During the Summer and Winter sessions, Continuing Education offers a wide variety of face-to-face and online classes. Matriculated students looking to "catch up" on credits or wanting to accelerate degree completion may take classes during these additional terms by registering and paying for classes. Continuing Education classes are available to all non-matriculated students. Instruction in Continuing Education courses is provided by Worcester State faculty and qualified adjunct faculty.

## Exceptions

## Documented Learning Disability

Students with a documented learning disability, do not have to submit test scores such as the SAT or ACT for admission to Worcester State. However, they must submit educational testing and assessment completed within the last three years and a copy of the Individual Education Plan (IEP) Students with learning disabilities must still complete the required 17 academic units with a minimum GPA of 3.0. First-year student applicants with a languagebased learning disability may substitute two alternate academic electives for the foreign language course requirements. Applicants on a Section 504 Plan must meet all Department of Higher Education requirements.

## English as a Second Language (ESL) Students

ESL students are eligible for exceptions to the admission requirements. For example, they may substitute two course electives for the two required foreign language courses. They must also take the Test of English as a Foreign Language (TOEFL) or IELTS and SAT* and should contact their school counselor or the Admissions Office for more information.
*students applying for fall 2023 admission may be waived from submitting SAT or ACT scores

## Vocational-Technical Students

Vocational-technical students must complete 17 academic courses, distributed in the same manner and with the same minimum grade point averages required of other high school graduates, with the following exceptions:

- Two vocational-technical courses may be used to fulfill the two required electives.
- Vocational-technical high school graduates who do not complete the two required academic foreign language courses must complete an additional elective college academic for a total of three such courses, and satisfy one of the following options:

1. Complete at least one Carnegie unit of foreign language;
2. Complete a fourth Carnegie unit of mathematics or science, which need not be a laboratory course; or
3. Complete one Carnegie unit of computer science.

Note: A Carnegie unit represents a full academic year of study or its equivalent in a specific subject.

This requirement will remain in effect until the Department of Education (DOE) implements its requirements regarding foreign language study for vocational-technical students. At that time, vocational-technical applicants for admission to Worcester State University will be required to meet DOE requirements for foreign language study.

## First-Year Student Admission

A student's high school academic record is the single most important factor in WSU's evaluation process for first-year student admission. The quality and level of courses, grade point average, and grade trends are all important factors. The submission of SAT and/or ACT scores are optional. Refer to http://www.worcester.edu/test-optional for policy guidelines. Work experience and extracurricular activities may strengthen overall credentials for admission. A personal essay and recommendation letters are not required but may add support to an application. The TOEFL, IELTS or a comparable exam score report is required for students who are not native speakers of English. Specific requirements for competitive majors such as Nursing and Occupational Studies and Public Health/Pre-Nursing are described in the selective majors section.

Worcester State determines first-year and transfer student admission eligibility in accordance with the published standards established by the Massachusetts Department of Higher Education (MDHE). Meeting these minimum standards does not guarantee admission to Worcester State.

## GED/HiSET Recipients

Candidates for admission who have completed the high school diploma requirement by earning the General Equivalency Diploma (GED) or the High School Equivalency Testing Program (HiSET) must submit official score reports and an official copy of their high school transcript showing work completed and/or attempted with grades earned.

Minimum recommended scores on the HiSet are a 15 on each sub-test and for the GED a $75 \%$ percentile rank.

## International Applicants

Worcester State welcomes qualified international applicants. No international applicants will be considered for the Spring semester unless:

- They are currently enrolled in an ESL program in the U.S.
- They are currently attending a U.S. college or university.
- They currently have a visa status that legally allows them to change to $\mathrm{F}-1$.
- They were accepted for a previous semester but deferred attendance due to being refused a visa.

All of the documents listed below must be submitted before April 1 for the Fall semester (January 15 for Fall only Nursing - BSN and Occupational Studies Majors) and before November 15 for the Spring semester.

- Official high school/secondary school transcripts or national exam reports accompanied by formal evaluation by a professional evaluating agency. Transcripts not in English must be accompanied by a notarized English translation.
- Official college or university transcripts accompanied by a course-by-course formal evaluation by a professional evaluating agency in the U.S. (for courses taken outside the U.S.).
- Official English proficiency examination results must be submitted to Worcester State University directly from the testing agency, for all applicants who have studied in a country where English is not the native language. Examinations and minimum scores accepted by Worcester State University can be found below. For additional information, please contact the WSU Admissions Office at 508-929-8040 or the WSU Intensive English Language Institute (IELI) at 508-929-8031.
- IBT TOEFL 71
- IELTS 6.0
- Pearson PTE 50
- Duolingo 100
- DAAD B2
- EIKEN Pre-1
- iTEP 3.5
- Applicants who have earned an Associate of Arts or Associate of Science degree from a regionally accredited U.S. college or university are not required to submit a TOEFL, IELTS, or a comparable test score report.
- Standardized test scores like the SAT or ACT are no longer required. Students may opt-in to our test optional policy, in which it is highly recommended to submit a personal essay to support your application.
- Completed and notarized WSU Financial Affidavit form with appropriate backup documentation, all educational expenses incurred while at Worcester State for one academic year (currently a minimum of $\$ 32,200$ U.S. dollars ${ }^{1}$ ).
- A copy of the identification page of the student's passport.
- International applicants, who have attended another college or university or secondary school in the U.S., must forward a copy of their Form I-20 with their application.

Transcripts and other documents submitted in languages other than English must be accompanied by an English translation and course-by-course evaluation (if applicable) from a recognized agency or organization. For a list of approved evaluating agencies, please contact the Admissions Office. Students wishing to transfer in credit completed at a non-U.S. institution must be prepared to submit a course description and/or syllabus to the appropriate department chair in order to be granted credit.

Worcester State will not issue a Form I-20 to international applicants until the admissions deposit is paid. The admissions deposit deadline for the Fall semester is May 1st. There will be no exceptions to this deadline.
${ }^{1}$ Subject to change

## International Baccalaureate (IB) Credit

The following equivalencies have been established for High-Level IB exams. Students who receive an IB Diploma and meet minimum honors admission criteria will be invited to participate in WSU's Honors Program.

| Exam | Score 4 | Score 5-7 |
| :--- | :--- | :--- |
| Biology | BI-101 (4) | BI-101 (4) |
|  <br> Management | BA-1XX (3) <br> (elective) | BA-200 (3) |


| Chemistry | CH-110 (4) | CH-120 (4) |
| :--- | :--- | :--- |
| Computer <br> Science | CS-101 (3) | CS-101 (3) |
| Economics | No Credit | EC-110 (3) and |
|  |  | EC-120 (3) |
| English A1 (HL) | EN-105 (3) | EN-105 (3) |
| Film | CM-241 (3) | CM-241 (3) and |
|  |  | CM-2XX (3) |

${ }^{1}$ Consult with department.

## MassTransfer

MassTransfer is a collaboration between the Commonwealth's community colleges, state universities, and the University of Massachusetts. System-wide resources and policies allow for students to transfer seamlessly, stay on track and minimize the time it takes to earn a bachelor's degree. For more information, please visit http:// www.mass.edu/masstransfer.

Benefits for students who complete associate's degrees under MassTransfer are:

| Minimum Final <br> GPA | Benefits |
| :--- | :--- |
| 2.00 GPA | No admission fee or essay |
| 2.00 GPA | Guaranteed full transfer of a <br> minimum of 60 credits applied to the <br> bachelor's degree, if admitted |
| 2.00 GPA | Satisfaction of the general <br> education/distribution/core <br> requirements at the receiving <br> institution, with the receiving <br> institution able to add no more than <br> six additional credits/two courses, if <br> admitted |
| 2.50 GPA | Guaranteed admission, plus all of <br> the above benefits |
| 3.00 GPA | A 100\% tuition discount, plus all <br> of the above benefits (must be <br> used within one year after date of <br> graduation) |

## A2B Linked Degrees

Beginning a college career at a community college can be a good choice. MassTransfer seeks to reward community college students who complete associate degrees at Massachusetts community colleges before they enroll in linked bachelor's programs at Massachusetts state universities or University of Massachusetts campuses. Not only does MassTransfer guarantee full transfer of a minimum of 60 credits but, depending on their final GPA and/or prerequisite coursework, students who complete A2B Linked Degrees (Associate to Bachelor's) may also receive guaranteed admission and tuition discounts.

## A2B Mapped Degrees

Students who complete A2B Mapped Degrees are guaranteed that courses listed and taken as major requirements will be accepted as major requirements at the receiving institution. Full-time students who follow A2B Mapped agreements and who earn a 3.00 GPA or higher also have the opportunity to participate in the Commonwealth Commitment. The Commonwealth Commitment (available in A2B

Mapped majors only) further rewards students with a freeze on tuition \& fees for all four years, and 10\% end-of-semester rebates.

## General Education Foundation

MassTransfer provides any student in the Massachusetts public higher education system who completes the General Education Foundation with the benefit of satisfying the general education/ distribution/core requirements at any other public high education institution (with the receiving institution able to add no more than six additional credits or two courses). Worcester State University asks students to complete two general education courses of the student's choice.

| English Composition/Writing | 6 credits |
| :--- | :--- |
| Behavioral and Social Sciences | 9 credits |
| Humanities and/or Fine Arts | 9 credits |
| Natural or Physical Science | 7 credits |
| Mathematics/Quanitative Reasoning | 3 credits |
| Total Credits | $\mathbf{3 4}$ credits |

Stipulations:

- The General Education foundation can be completed without finishing an associate degree
- Students enrolled in a specific major or degree program may be required to take additional courses if these courses are specifically required for the major or program and are required of native students.
- Completion of the General Education Foundation does not guarantee admission to the college or university


## Non-Traditional Applicants

When students apply to Worcester State more than three years after high school graduation and have never attended a college or university, they do not need to meet the admission standards for first-year students. Instead, they must show they are capable of succeeding at Worcester State based upon their high school transcript grades. Other factors may be used as part of the admission process. A current resume or personal statement outlining life experience, career goals and specific reasons for applying to Worcester State may be submitted with the application.

## Post-Baccalaureate Pre-medical and Health Professions Program

This is a part-time certificate program offered through the WSU Division of Graduate and Continuing Education (DGCE) that is expected to meet the needs of students interested in medical, dental and veterinary school as well as those interested in pharmacy, physician assistant, physical therapy, and optometry programs. Each student's history is evaluated, and appropriate courses are advised based upon their specific needs. Students have access to Worcester State's Pre-Medical and Health Professions Advisory Committee and, if necessary for a program, the committee recommendation letter process.

Students who complete thirty credits of the basic core sciences and/or other elective pre-health courses at Worcester State University will receive a certification of completion of the program. Up to eight transfer credits will be allowed to contribute to the thirty credit total. Students will be required to maintain a 3.0 GPA to remain eligible for the program.

This program is designed for students who need the basic science curriculum either as new courses (career changers) or as repeat attempts (GPA enhancement). A GPA of 2.75 overall is required for admission to the program along with two letters of recommendation (no test scores required). Students wishing to take an advanced curriculum are advised to seek a second baccalaureate degree through the undergraduate school. The basic courses are offered throughout the academic year, primarily in the evening. Summer courses are also available. Interested students should contact the DGCE Office or the coordinator of the program at premed@worcester.edu. Additional information and application materials are available at http:// www.worcester.edu/premed.

Below is a list of the basic core courses and available electives. Since health professions programs differ in their requirements, students should contact the PreMed Advisor prior to registration to make sure they are taking the correct courses.

The Basic Core

| Code | Title | Credits |
| :---: | :---: | :---: |
| CH-120 | General Chemistry I (including lab) | 4 |
| CH-121 | General Chemistry II (including lab) | 4 |
| BI-140 | Introduction to Organismal Biology (including lab) | 4 |
| BI-141 | Intro to Cellular and Molecular Biology (including lab) | 4 |
| CH-201 | Organic Chemistry I (lecture) | 3 |
| CH-202 | Organic Chemistry II (lecture) | 3 |
| CH-203 | Organic Chemistry <br> Laboratory I (lab) | 2 |
| CH-204 | Organic Chemistry <br> Laboratory II (lab) | 2 |
| PY-221 | General Physics I (including lab) | 4 |
| or PY-241 | Physics I (Mechanics) |  |
| PY-222 | General Physics II (including lab) | 4 |
| or PY-242 | Physics II (Electricity, Magnetism and Optics ) |  |

## Science and Math Elective Courses

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| MA-150 | Statistics I | 3 |
| BI-203 | Genetics | 4 |
| CH-410 | Biochemistry I (including lab) | 4 |
| BI-161 | Human Anatomy and <br> Physiology I | 4 |
| BI-162 | Human Anatomy and <br> Physiology II | 4 |
| BI-204 | Microbiology | 4 |

## Additional Admission Criteria for Selective Majors

Nursing (BSN Track 1) and Occupational Studies (BSOS) are selective majors and have rigorous admission criteria and firm application deadlines which students must meet in order to be considered eligible to apply. Meeting minimum criteria and application deadlines does not guarantee a student's admission. First-year and transfer applications are
processed through the Undergraduate Admissions Office. External transfers to Occupational Studies are not accepted. Current Worcester State students are not able to change their major to Nursing (BSN Track I) or Occupational Studies (BSOS). Students who are competitive for admission to a selective major will have completed all appropriate pre-requisite courses and have an outstanding academic record.

NOTE: First-year students applying to the Occupational Studies or Nursing (track I) majors for Fall 2024 admission may participate in the University's testoptional admission policy. Students who apply to these majors as test-optional candidates will be evaluated based on their academic record, including course selection, rigor of curriculum, and grades earned. Students eligible for admission to the major should have a minimum re-calculated high school GPA of a 3.0 for occupational therapy and 3.2 for Nursing (Track I). Meeting this minimum re-calculated high school GPA does not guarantee admission to the major. Students who choose not to submit test scores will not be negatively impacted for consideration.

The following is used, along with other criteria, in considering applications to selective majors:

## First-Time Applicants to Nursing (BSN Track 1)

First-time Applicant Early Action Deadline: November 15

First-time Applicant Application Deadline: January 15

First-time Applicants must have a re-calculated High School GPA equal to 3.2 or greater (on a 4.0 weighted scale) and SAT scores equal to a combined evidence-based reading and writing (EBRW) and math (M) score of 1130 or greater or ACT Composite score equal to 23 or greater, if not applying as a testoptional applicant.

## Transfer Applicants to Nursing (BSN Track 1)

Transfer Application Deadline: January 15
Transfer applicants into Nursing (BSN Track

1) must complete all prerequisite courses and submit official TEAS exam scores. To be eligible for admission, students must complete English Composition I and II, Anatomy and Physiology I and

II, General Microbiology or Medical Microbiology, General Chemistry, Statistics I, and Introduction to Psychology or Sociology (in progress coursework will not be considered) and score a 78 or higher for the Test of Essential Academic Skills (TEAS) exam. Students must have a minimum cumulative college GPA of a 3.0 or greater and grades of B- or better in all pre-requisite courses. Meeting minimum standards does not guarantee admission which is based on space availability. Students are considered for admission into the first-year cohort.

The application and all required supporting documents including official final high school transcript(s) and official college transcript(s) must be received by the January 15 firm deadline for transfer applicants. All required courses for transfer must be completed by June 1 of the year applying for admission.

## Transfer Applicants to Occupational Studies

Due to lack of space availability, external transfer applications are not accepted for Occupational Studies.

Transfer applicants with questions should contact the Admissions Transfer Center at 508-929-8018.

Current Worcester State students may not change their major to Nursing (BSN) or Occupational Studies. Students are encouraged to meet with their academic advisor.

## Public Health - Pre-Nursing Program

The Public Health - Pre-Nursing Program is a dualdegree based on a formal affiliation agreement that admits a limited number of students into an articulated program that begins with 83 credits at WSU in the Public Health/Pre-Nursing program and ends with the accelerated Bachelor of Nursing program at the Massachusetts College of Pharmacy and Health Sciences University (MCPHS University) Worcester or Manchester, NH campus. At the completion of the appropriate 37 credits (of the 63 required) at MCPHS University, the student transfers those credits back to WSU, and earns a Bachelor of Science in Public Health. The student then completes the additional number of appropriate credits (26) at MCPHS University to earn the B.S. in Nursing.

Students should see the advisor in the Health Sciences department assigned to the program. Please see entrance requirements in this catalog.

The Bachelor of Science in Public Health requires 83 credits at WSU followed by the 63 credits in Nursing which will be taken at the MCPHS University campus in either Worcester or Manchester, NH.

## Pre-entrance Immunization Requirements

New first-year and transfer students must submit required health forms (p. 84) before registering for courses. For additional information refer to the Health Services (p. 85) section of this catalog.

## Second Baccalaureate Degree

Applicants who have already earned a bachelor's degree may apply for a second baccalaureate, excluding Early Childhood Education, Elementary Education, Occupational Studies (BSOS) and Undeclared. Requirements for this degree can be found in this catalog.

## Special Admission

If standards for first-year, transfer or non-traditional students are not met, acceptance may still be possible based upon other signs of potential for academic success in a four-year college or university program. Possible signs of success include steadily improving high school grades, high school class ranking, special talents, and strong recommendations.

## Special Non-Matriculated Students

Students classified as Senior Citizens, College Academic Program Sharing (CAPS) and Higher Education Consortium of Central Massachusetts (HECCMA) may enroll as Special Students. Others may enroll up to a maximum of 11 credit hours in day classes, on a space available basis at a time designated by the Registrar. Others who wish to enroll for more than 11 credit hours in statesupported courses must be admitted to Worcester State through the Admissions Office before taking courses. Non-matriculated students may register for
evening classes through the Division of Graduate and Continuing Education during their registration periods.

Student Right-to-Know Act

The Student Right-to-Know Act of 1990 requires Worcester State to make available to prospective and enrolled students the graduation or persistence rates of selected groups of students. This information is available for review through either the Enrollment Management or the Undergraduate Admissions Offices.

## Transfer Student Admission

Students who do not enroll as first-year students may attend a community college or other college or university and then transfer to Worcester State. To do so, one of the following requirements must be met:

1. 12-23 transferable college credits and a minimum 2.5 college GPA;
2. Up to 23 transferable college credits, a minimum 2.0 college GPA, and a combination of high school grades and SAT/ACT scores that meet the admission standards for first-year applicants; OR
3. 24 or more transferable college credits and a minimum 2.0 college GPA.

If college credits have been earned while enrolled in high school, the admission standards outlined above for first-year student applicants must be met.

## Previously attended college/university:

Complete, official transcripts of all work taken at any other institution must be submitted as part of the application process, whether or not credit for such work is desired or expected. Students who fail to acknowledge attendance at any college or university in which they have been enrolled automatically waive the right to have that work considered for transfer credit. They may also be subject to denial of admission, loss of course credit, and/or suspension from Worcester State.

## Transferring Credit from Other Institutions

Worcester State University determines transferability of credits from other colleges and universities based on best practices as outlined by the American

Association of Collegiate Registrar's and Admission Officers (AACRAO), the American Council on Education (ACE), and the Council for Higher Education Accreditation (CHEA). Transfer and allocation of credit is determined based on the sending institution's regional accreditation, the comparability of the learning experience to WSU, and the applicability of the learning experience to the student's selected major/minor at WSU.

## Stipulations that apply to transfer credit include:

1. College-level courses completed at colleges and universities accredited by the New England Commission of Higher Education (NECHE), or similar regional associations, are acceptable for transfer to Worcester State University.
2. Coursework completed at non-regionally accredited institutions is considered on an individual basis, through a thorough examination of course content, syllabi, and/or learning objectives. Students may appeal the denial of transfer of credit from non-regionally accredited institutions to the Admissions Transfer Center.
3. Transferability and allocation of courses to Liberal Arts and Sciences Curriculum (LASC) and/or free electives must be approved by the Admissions Transfer Center and Academic Success Center, according to established LASC transfer policies (p. 46).
4. Substitutions of transfer credit in the requirements of the major/minor must be approved by the department in which the major/ minor is housed.
5. The completion of the MassTransfer General Education Foundation at any Massachusetts community college, satisfies the WSU general core/LASC requirements, with the possible addition of two courses (6 hours) including a Capstone course and another LASC Content Area Course of the student's choice. Completion of the MassTransfer General Education Foundation is confirmed upon receipt of an official transcript stamped with "MTB Complete". Students who enter WSU under the Mass Transfer Block will be required to complete an additional 6 credits in the LASC (p. 46). The additional 6 credits will be met in the following way:
a. Completion of a capstone seminar sponsored through the students' major field of study or through the LASC.
b. Completion of an additional 3 credit LASC course in the content area of the student's choice to be completed at WSU.

The completion of a Bachelor's Degree from any regionally accredited institution of postsecondary education satisfies the WSU general core/LASC requirements. Completion of the Bachelor's Degree is confirmed upon receipt of an official transcript from a regionally accredited college or university with a degree completion graduation date.

Transfer students without the MassTransfer General Education Foundation or a Bachelor's Degree can transfer a maximum of 40 credits into LASC.
6. The maximum number of credits that can be transferred from a community or junior college to WSU is 72 . The maximum number of credits that can be transferred from a fouryear institution to WSU is 90 . If a student has attended a combination of two-year and fouryear institutions, a maximum of 90 credits, including no more than 72 credits from the twoyear college(s), can be transferred.
7. A residency requirement at WSU exists, which includes completion of at least 30 of the last 40 credits of any degree program and completion of more than half of the major/minor courses while matriculated at WSU.
8. All transfer courses must be college-level. WSU does not accept remedial or developmental coursework in transfer.
9. Courses earned with grades of C - or better will be considered for transfer.
10. Life experience credit, internships, practica, colloquia, and cooperative education experiences at another college generally do not transfer to WSU. Credit for such experiences may be offered to adult learners through the Prior Learning Portfolio Program or through a review with the American Council of Education (ACE) College Credit Recommendation Service.
11. A transfer credit evaluation is prepared for new transfer students upon their acceptance to WSU. The transfer credit evaluation summary and
estimated number of transfer credits to WSU is attached to the student's acceptance email sent by the Admissions Transfer Center.

## Veteran/Military Applicants (VALOR Act Academic Credit Evaluation Policy)

The WSU Veteran/Military VALOR Act Academic Credit Evaluation Policy is designed to:

- Assist veteran/military applicants through the admission processes, which may require different standards and practices from the traditional freshman/transfer admission procedures.
- Assist with specific challenges and concerns as well as provide additional support in the applicant's re-acclimation to civilian life.
- Provide additional support structures to maximize success in a degree program.
- Maximize benefits students may qualify for, based on their years of service.

The Worcester State University Veteran/Military VALOR Act Academic Credit Evaluation Policy allows academic credit to be awarded for students' previous military occupation, military training, coursework and experiences towards degrees and certificates. The awarding of academic credit shall be determined by the Worcester State Admission Office and Academic Success Center, as defined by WSU policy and national best practices. Eligible students shall receive accurate and complete academic counseling in regards to the policy when they are admitted.

Admissions may use multiple methods for evaluating military occupation, training, experience and coursework for academic credit, including the ACE Guide to the Evaluation of Educational Experiences in the Armed Services, CLEP, DANTES Subject Standardized Tests, and other methods. The appropriate method for evaluation is determined by Worcester State University, based on the type of military occupation, training, experience and coursework.

Once Admissions has posted credit to the student's academic record, the Academic Success Center will review the student's credit along with his/her program of study to determine the allocation of
military credit in appropriate areas. All inquiries regarding the specific allocation of military credit should be directed to the Academic Success Center.

## To Request Military Transcripts:

Military members and veterans (except the Air Force) can obtain military transcripts from the Joint Services Transcript system. Air Force Transcripts are available from The Air University.

## To Request Military Medical Records:

To attend WSU, students must provide medical documentation. Military and veteran medical records are available from the U.S. Department of Veterans Affairs.

## Admissions Contact:

Christopher Dooley, Assistant Director of Admissions
Administration Building, Office 241
cdooley@worcester.edu
508-929-8793

## Academic Success Center Contacts:

Tammy Tebo, Assistant Dean of Academic Services Administration Building, Office 130
TTebo1@worcester.edu
508-929-8933

## Academic Supports, Policies, and Procedures

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## Academic Achievement Awards Ceremony

Conducted annually, the Academic Achievement Awards Ceremony gives special recognition to Worcester State University students who excel academically. Students so honored include the top academic performers in each class year, the ranking students in individual disciplines, and other highachieving students.

## Academic Advising

All incoming first-year students are assigned a primary academic advisor in the Academic Success Center. Except for certain departments, this individual will advise the first-year student for both fall and spring registration in their first year (or spring and fall if they begin in the spring semester). All other students, including those who were advised in the Academic Success Center their first year, will be assigned a faculty advisor from their major department as their primary academic advisor; only those who have not yet selected a major will continue with their primary academic advisor in the Academic Success Center. Students must have primary academic advisors approve course schedules for preregistration as well as all courses taken off campus, using appropriate forms available in the Office of the Registrar. A student should
contact their primary academic advisor whenever information or an opinion on an academic matter is needed. Academic Success Center advisors have regular hours and students can contact their advisor directly or the Academic Success Center to make an appointment. All faculty advisors have hours set aside for students each week during the normal fall and spring academic semesters, so. Each student's primary academic advisor is listed in Student Planning.

## Academic Honesty

Academic integrity is an essential component of a Worcester State University education. Education is both the acquisition of knowledge and the development of skills that lead to further intellectual development. Faculty are expected to follow strict principles of intellectual honesty in their own scholarship; students are held to the same standard. Only by doing their own work can students gain the knowledge, skills, confidence and self-worth that come from earned success; only by learning how to gather information, to integrate it and to communicate it effectively, to identify an idea and follow it to its logical conclusion can they develop the habits of mind characteristic of educated citizens. Taking shortcuts to higher or easier grades results in a Worcester State University experience that is intellectually bankrupt.

Academic integrity is important to the integrity of the Worcester State University community as a whole. If Worcester State University awards degrees to students who have not truly earned them, a reputation for dishonesty and incompetence will follow all graduates. Violators cheat their classmates out of deserved rewards and recognition. Academic dishonesty debases the institution and demeans the degree from that institution.

It is in the interest of students, faculty, and administrators to recognize the importance of academic integrity and to ensure that academic standards at Worcester State University remain strong. Only by maintaining high standards of academic honesty can WSU protect the value of the educational process and the credibility of the institution and its graduates in the larger community.

## What Constitutes Academic Dishonesty?

Academic dishonesty includes intentional violations of accepted standards of ethics and academic integrity as well as negligent violations of standards that the individual reasonably should have known and followed. The following is not an exhaustive list of violations but provides guidelines for evaluating common areas of concern, such as cheating, plagiarism and falsification of information. Violations of academic honesty include:

1. Cheating, including but not limited to:
a. traditional cheating methods including copying on exams or assignments, letting other students copy one's own work, using crib sheets in quizzes and tests, glancing at other students' work, or giving answers to other students
b. giving or receiving unauthorized assistance in exams, laboratory exercises or other academic assignments or attempting to do so, or using unauthorized materials or information sources on tests or assignments, including communication via cell phones or computers or use of materials stored on or accessed by computer or other digital media, or collaboration between or among more than one student on an assignment that is supposed to be done individually
c. submitting someone else's work as one's own or allowing others to claim one's own work as theirs, including misrepresenting one's identity in an online course or allowing others to do so
d. obtaining from any source an unauthorized copy of a test or assignment or portion of a test or assignment, and/or disseminating such material through any means, including cell phone or computer.
2. Plagiarism, including but not limited to:
a. use of other people's ideas, words, research or artistic creations without giving credit
i. submitting any work, including homework, not done by the person who hands it in and whose name is on it
ii. submitting papers or other work purchased, copied or obtained free in whole or part from another source,
including papers from the internet or from another person, including a friend or a relative
iii. using another person's unpublished ideas without permission, taking credit for another person's unpublished ideas, or taking sole credit for the product of joint efforts with another person.
b. improper or inadequate citation of material from books, professional periodicals, magazines, websites, unpublished reports, personal communications, images, graphic materials or other citable sources
i. use of facts, data, or specific ideas without citing the source
ii. inaccurate or incomplete citation of sources
iii. quoting another's words without indicating it is a quotation
iv. using extensive quotations in place of one's own ideas, even when cited.

Note: standards and forms for citation vary among disciplines and even among teachers. Students should ask their teachers about the expectations for any particular course or project.

1. Misrepresentation or falsification of information, including but not limited to:
a. intentionally misrepresenting information to help make a point not supported by the work, including misquoting or taking ideas out of context
b. falsifying the collection or interpretation of data in a research project
c. citing sources not used
d. falsifying one's qualifications, including academic background or other experience.
2. Seeking credit for the same work in more than one course, including but not limited to:
a. submitting the same paper or project, or significant parts of the same paper or project, to two or more different courses without getting permission from the professors who give the grades
b. using the same internship or fieldwork experience for two or more different courses without prior permission from the professors and internship supervisors involved.
3. Other academic misconduct, including but not limited to:
a. forging, damaging or changing examinations, grades or other academic material or records including written and/or electronic material and records
b. interfering with or damaging another student's work including homework, papers, laboratory assignments, artistic creations or research projects
c. removing or damaging academic material or equipment, including electronic data, belonging to Worcester State University or any other member of the Worcester State University community
d. deliberately making a false report of academic misconduct or covering up an incident of academic misconduct.

## What Are Possible Sanctions?

If the instructor chooses to resolve this issue without referring it to the Academic Judicial Board, he or she has the power to give the student penalties such as a warning, a new assignment or test to replace the one which was not done honestly, or a failing grade on the work in question or in the class. Instructors do not have the power to assign community service or to expel the student: those penalties are in the power of the Academic Affairs Office/Academic Judicial Board only.

Typically, instructors will use these powers to deter the student from cheating in the future without branding the student as dishonest in any official record; they may warn the student that they will come forward with proof of this infraction if they hear that the student has repeated the offense. Instructors may choose to give warnings, require new work, and/or give failing grades on assignments will do so the first time a student turns in dishonest work; a failing grade in the class is usually reserved for repeat offenders and serious, deliberate offenses such as turning in work done by another student as one's own, using electronic means to get answers during in-class exams, or stealing exams or answer keys before a test.

The student has the right to appeal any instructor's decision to the Academic Judicial Board, which may uphold or change the instructor's decision.

The Judicial Board may assign penalties ranging from a warning to expulsion. Comprised of faculty, students, and administrators, its membership is designed to be aware of the differences between different kinds of academic dishonesty and of the strains and temptations that may lead to bad decisions.

Unless it is dealing with repeat offenders, the Judicial Board will probably respond to minor infractions with failing grades on the particular assignment in question or in the course. Deliberate dishonesty, such as use of answer keys or electronic aids during exams, theft of examination papers prior to the test, submission as one's own of work done by another student or found or purchased online, etc. should be grounds for a failing grade in the course, with community service hours in addition as a possibility.

Repeated infractions would put offenders at risk of expulsion, as would extremely serious offenses, like stealing an examination and sharing it with other students before the test or having another student take a test in one's place in an online course.

Students at risk of expulsion will be given a written warning, which they will be required to sign and return within 10 working days.

Acts that are not only dishonest, but criminal, like changing a grade through illegal access to Worcester State University computers, can be punished by expulsion without prior warning.

## Undergraduate Policies and Procedures for Handling Cases of Academic Dishonesty

## 1. Students' Rights

a. Students will have the presumption of innocence until proven guilty.
b. Students will continue their student status unless and until sanctions are imposed at the conclusion of judicial sanctions which would limit or remove this status.
c. Students are allowed to have an advisor of their choosing at hearings of the Academic Judicial Board. The advisor may counsel the student during the hearing but may not address the Board.
d. Students are allowed to view evidence against them.
e. Hearings at the Academic Judicial Board will proceed even if the student does not appear. However, the student's absence cannot be the reason a student is found guilty.
f. Students will be notified by a message to their Worcester State University email address if a report is being made concerning them in the Central File.
g. Students may review their records in the Central File within 45 days of the day Worcester State University receives a request for access, as stated in FERPA.
h. Students may ask Worcester State University to amend a record that they believe is inaccurate or misleading. They should write to the Provost/Vice President for Academic Affairs, clearly identify the part of the record they want changed, and specify why it is inaccurate or misleading. Students should submit to the Provost/ Vice President for Academic Affairs written requests that identify that they wish to view their record(s) in the Central File. The Provost/Vice President for Academic Affairs will make arrangements for access and notify the student of the time and place where the records may be inspected. If the Provost/Vice President for Academic Affairs decides not to amend the record as requested by the student, Worcester State University will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.
2. Initiation

In cases involving the violation of academic integrity, students and faculty are strongly encouraged to resolve matters without resorting to official judicial proceedings. If the faculty member and student are unable to resolve the issue themselves, the chair of the department in which the course was taken should be asked to mediate. If resolution is not possible at this level, the case will go to the Academic Judicial Board (refer to 3 below).
Faculty members and appropriate administrators are strongly urged to report any violations of academic integrity to the Academic Central File.

## 3. Academic Central File

An Academic Central File of students proven to have violated Worcester State University's Academic Honesty Policy will be kept in the Office of Academic Affairs. Only the Provost/ Vice President for Academic Affairs or his/her designee will have direct access to the Central File. A file will only be created for a student upon a case's final resolution with a faculty member, with a department chair, or with the Academic Judicial Board.
Faculty members have the option of reporting students to the Academic Central File. Reports, which are statements of resolutions of cases and not allegations, that are sent to the Academic Central File must be supported with proof of some kind. For example, the instructor may submit a copy of a plagiarized paper along with a printout of the same paper from the Internet. A faculty member who reports a student for the kind of cheating that can't be proved without a camera (copying from the person in the next chair, sneaking a peak at the book in a closedbook test, asking a classmate for an answer) must provide the reasons for the accusation in writing. Students who are added to the Academic Central File will be informed of the fact in writing. Reporting a student is not necessarily linked to a disciplinary action; the faculty member still has discretion over whether to take the case to a judicial hearing. In special cases, when the Provost/Vice President for Academic Affairs notices that a student has two or more significant violations in the Central File, he or she can refer the case to the Academic Judicial Board, which may then initiate disciplinary proceedings against this student.
Faculty members who provide evidence that a student in their course has violated the Academic Honesty Policy may make an inquiry to the Provost/Vice President of Academic Affairs or his/her/their designee to find out if a student has a file, and if so, how many times he/ she has been reported to the Academic Central File. Relevant information limited to the student's name and number of times he/she has been reported to the Central File may be disclosed to a faculty member to assist in making decisions regarding cases of academic honesty. The procedures by which students access these files will be the same as those for accessing their academic records. The Academic Judicial Board,
in the course of deciding a case of academic dishonesty, may access a student's file. A student's files are purged according to current FERPA rules. Students' files are purged upon graduation, withdrawal, dismissal or transfer from Worcester State University. A student may confirm that his/her/their file has been deleted by writing to the Provost/Vice President of Academic Affairs or his/her/their designee.
4. Academic Judicial Board

At any point beyond the departmental level, either the student or the faculty member may elect to take the issue to the Academic Judicial Board following the procedures outlined below.
a. A student may request an Academic Judicial Board hearing
i. because she or he has been unable to resolve an accusation of academic dishonesty with a faculty member or the chair of that faculty member's department
ii. in response to a notice that an Academic Central File posting is to be made.
The student makes this request, in writing, to the Chairperson of the Academic Judicial Board, in care of the Office of Academic Affairs.
b. Any member of the Worcester State University community may report any student to the Academic Judicial Board for violations of the Academic Honesty Policy. Reports shall be prepared in writing, directed to the Chairperson of the Academic Judicial Board (in care of the Office of Academic Affairs), and submitted as soon as possible after the incident takes place, preferably within 30 days. The Chairperson has the authority to extend this timeframe on a case-to-case basis.
c. The Chairperson will determine if the complaint lacks merit and/or if it can be disposed of by mutual consent of the parties involved on a basis acceptable to the Chairperson. Such disposition shall be final, and there shall be no subsequent proceedings. If the case cannot be disposed of by mutual consent, the matter will proceed to the Academic Judicial Board.
d. All charges shall be presented to the accused student in writing via certified mail with return receipt requested; the same letter will also be sent by first class mail to the student's current address as registered with Worcester State University. The hearing shall be scheduled not less than seven or more than fifteen calendar days after the student has been notified. All parties shall receive at least seven days advance written notice of the date, time and place of the hearing. Maximum time limits for scheduling of hearings may be extended at the discretion of the Chairperson.
e. The Chairperson will schedule an Academic Judicial Board hearing.
i. The hearing will be conducted by the Chairperson of the Academic Judicial Board, chosen by the board members.
ii. The Academic Judicial Board is comprised of two faculty members, one administrator and two students. The faculty members are appointed by the MSCA. The administrative member is appointed by the Associate Vice President for Academic Affairs, in consultation with the Provost/Vice President for Academic Affairs. The student members are appointed by the Student Government.
iii. A quorum of three members must be present to convene a hearing.
f. Hearings shall be conducted by the Academic Judicial Board according to the following guidelines:
i. All procedural questions are subject to the final decision of the Chairperson of the Academic Judicial Board present at the hearing.
ii. Hearings shall be conducted in private.
iii. In hearings involving more than one accused student, the Chairperson of the Academic Judicial Board, at his or her discretion, may permit the hearings concerning each student to be conducted separately.
iv. The complainant and the accused each have the right to be assisted by an advisor from the Worcester State University community. Advisors may counsel their respective party during
the hearings, as permitted by the Academic Judicial Board. Advisors are not permitted to participate directly in the hearing.
v. The complainant, the accused and the Academic Judicial Board shall have the privilege of presenting witnesses to any violations of academic integrity. The accused and the complainant shall have the opportunity to cross-examine witnesses presented by the other. Members of the Academic Judicial Board shall have the right to question any witnesses.
vi. All hearings are closed to friends and relatives of the accused unless they were actual witnesses to the violation of academic integrity. Witnesses are excluded from the hearing except when called to testify.
vii. Pertinent records, exhibits and written statements may be accepted for consideration by the Academic Judicial Board at the discretion of the chairperson.
viii. After the hearing, the Academic Judicial Board shall determine by majority vote whether the student has violated Worcester State University's standards of academic honesty.
ix. The Academic Judicial Board's determination shall be made on the basis of whether it is more likely than not that the accused student violated the rules of academic honesty in the manner charged against him or her.
g. A written record of Academic Judicial Board proceedings shall be made by the Board or its secretary. This record shall be the property of Worcester State University and will be housed in the Office of Academic Affairs. The record will state the final decision of the Board, a statement of the Board's findings of fact, its determination of the provision(s) of the Academic Honesty Policy, if any, that the student violated and the sanction(s), if any, imposed. The record may also include a summation of witness testimony. A copy of the final decision shall be given to the complainant and the accused.
h. Students may not be found to have violated the Academic Honesty Code solely because they fail to appear before a judicial body for a scheduled hearing. In all cases, the materials and information in support of the charges shall be presented and considered, as the hearing will be held in the absence of the student, should he/she fail to attend.
i. In the absence of a functioning Academic Judicial Board or Academic Board of Appeals, such as during exams or during the summer and semester breaks, disciplinary hearings (under this Section 3, and the following Section 4) will be the responsibility of the Associate Vice President for Academic Affairs or his/her designee. When he/she deems it appropriate, a hearing may be postponed until the beginning of the new semester.
j. Possible sanctions that the Academic Judicial Board could impose would depend upon the severity of the offense; however, the Board could choose to uphold the original faculty decision or impose another punishment, which might include failing the course, expulsion from the major or program, or expulsion from Worcester State University.

## 5. Academic Judicial Board of Appeals

The purpose of the Academic Judicial Board of Appeals is to conduct procedural reviews of cases. It is not intended as an evidentiary panel. It is not the job of the Academic Judicial Board of Appeals to hear new evidence.
a. A decision reached by the Academic Judicial Board may be appealed by the accused student(s) or the complainant to the Academic Judicial Board of Appeals within five working days of the date of the decision letter. Such appeals shall be in writing and shall be delivered to the Associate Vice President for Academic Affairs or his/her designee.
b. The Academic Judicial Board of Appeals will consist of one administrator, two students and two faculty members and will be chosen in the same manner as the members of the Academic Judicial Board (see 4.e.ii. above). The administrator in this case, will be the Associate Vice President for Academic Affairs or his/her designee.
c. In cases where the student files an appeal, the complainant, and, in cases that were decided by Academic Judicial Board hearing, the Chairperson of that Board, shall be notified. In cases where the appeal is not initiated by the student, the student shall be notified.
d. An appeal is not a new hearing but is a review of the summation/record of the initial hearing and supporting documents for one or more of the following purposes:
i. to determine whether the original hearing was conducted fairly in light of the charges and evidence presented, and in conformity with prescribed procedures
ii. to determine whether the finding of responsibility or no responsibility is supported by the weight of the evidence
iii. to determine whether the sanctions imposed were inappropriate.
e. When the appellant wishes to introduce new evidence, sufficient to alter a decision, or other relevant facts not brought out in the original hearing, because the person appealing did not know such evidence and/or facts at the time of the original hearing, the Chairperson of the Academic Judicial Board of Appeal (the Associate Vice President for Academic Affairs) will decide whether to instruct the Academic Judicial Board to convene a new hearing of the case. If a case is returned to the Academic Judicial Board for consideration of new evidence, all parties shall have equal opportunities to submit new material.
f. Upon completion of the appellate hearing, the Academic Judicial Board of Appeals shall promptly notify the accused student, the complainant and the chair of the Academic Judicial Board of the outcome of the appeal. Said decision(s) shall take one of the following forms:
Appeal Upheld: the appellant's request for relief has been honored. In the case of an upheld appeal, the new findings/sanctions shall be stated;
or
Appeal Denied: the appellant's request for relief is denied and the finding(s) and/or sanction(s) stand.
g. In extraordinary circumstances, the Associate Vice President for Academic Affairs or his/her designee may waive the deadline for filing an appeal. The decision to waive or not to waive a deadline shall be final and shall not be subject to any appeal.
h. No disciplinary sanction shall be imposed while an appeal is pending unless the Associate Vice President for Academic Affairs determines that such action would be in the best interest of the Worcester State University community.

## 6. Administrative Failing Grade

In cases where the sanction for academic dishonesty is determined to be a failing grade for the course, the Registrar will be informed immediately. The Registrar will record an administrative failure. Such a grade is not subject to withdrawal or appeal. A student who receives a failing grade for a course due to a violation of academic honesty cannot eradicate that failure through the normal grade appeal process or by withdrawing from the course.

## Academic Reprieve Policy

The Academic Reprieve Policy applies to former Worcester State University students returning to complete baccalaureate degree programs a minimum of two academic years after their last completed semester at Worcester State University. This policy is designed to facilitate program completion for students whose previous academic records were so poor as to put them in jeopardy of academic probation or dismissal immediately upon readmission. The GPA may be reprieved up to a 3.0. A student may exercise this academic reprieve option only once.

A student meeting criteria for eligibility must file a petition form, available in the Office of the Registrar, requesting reprieve of eligible course work at Worcester State University, either at the time of readmission or before the close of the first semester of re-enrollment. Credit for courses in the student's major is contingent upon approval by the Department Chair. None of the grades associated with courses given credit under the academic reprieve policy will be calculated in the student's GPA; however, all course work will be recorded on the transcript. A student selecting the reprieve option will be required to meet degree requirements of the catalog in
effect on the date of the student's application for readmission. Those electing the reprieve option may qualify for honors at graduation upon the completion of a minimum of 48 graded credits. All approved academic reprieve students should check with the Financial Aid Office to see whether their reprieve will be recognized for financial aid purposes.

## Academic Support Services Academic Success Center

The Academic Success Center is located in the Administration Building, Room 130. The work of this office focuses on:

- First semester advising (for new first-year students and transfer students)
- Testing services including Math placement testing and CLEP administration
- Academic Advising for Undeclared and Liberal Studies students
- Academic support services for new students
- Registration assistance for students who are on academic probation


## Academic Support Services

The aim of Academic Support Services is to increase student academic effectiveness. The Academic Success Center provides group tutoring in select courses along with workshops aimed at increasing other academic skills. Students who think they may need academic assistance in order to achieve their educational objectives should visit the Academic Success Center as soon as possible to maximize the benefit of these services.

## Math Center

The Worcester State University Math Center provides peer tutoring for all courses with mathematical content. These courses include those offered by the Business and Economics, Computer Science, Chemistry, Nursing, Psychology, and Physics departments. Tutoring is also available for math courses starting from MA-098 / MA-099 Developmental Math through MA-201 Calculus 2, as well as, math placement test preparation for students
taking or retaking the placement exam. The Math Center is a resource free of charge to all students and is located in Sullivan 140.

## Writing Center

Worcester State University's Writing Center is located in Sullivan 306. Staffed by friendly, knowledgeable peer consultants, the Writing Center is a space where students have productive conversations about their writing. All services at the Writing Center are offered free of charge. For more information about how to schedule an appointment and about the kind of work you will be doing with our trained consultants, visit our main page.

## Certificate

A certificate is a course of study leading to a professional credential or certification. The number of credits or courses required is determined by the program offering the certificate.

## Concentration

A concentration is a specialized track within a major or an approved interdisciplinary track of study. The number of credits and courses of study required to earn a concentration within a major is determined by the major department or the program administering committee.

An interdisciplinary concentration may be completed by earning between 12 and 17 credits in a specified course of study as determined by the program administering committee.

## Course Formats

## Face-to-face

Course meets on campus face-to-face on specific days/times. It may require some online work in addition to regular class meetings. Face-to-Face specific meeting days/times will be identified in the course schedule in Self-Service.

## Blended Asynchronous

Course meets on campus face-to-face for at least 50 percent of course time overall, on specific days/ times, with required additional online asynchronous
work. Blended Asynchronous specific meeting days/ times will be identified in the course schedule in SelfService.

## Blended Synchronous

Course meets on campus face-to-face for at least 50 percent of course time overall at specific days/times and synchronously online through Zoom or some other video conferencing platform on other specific days/times. The blended synchronous designation includes courses that may meet on campus only for labs, tests, studio, or practicums with the remainder of class meetings occurring synchronously online. Blended Synchronous specific meeting days/times will be identified in the course schedule in SelfService.

## Online Asynchronous

Course consists entirely of online work; there are no synchronous class meetings and no on campus meetings.

## Online Synchronous

Course meets fully online through Zoom or some other video conferencing platform at specific days/ times; there are no on campus meetings. Online Synchronous specific meeting days/times will be identified in the course schedule in Self-Service.

The determination of which course format best describes a given course section is made by the course instructor in consultation with the department chair and/or dean.

## Dean's List Criteria

Full-time Students: Following the completion of each semester, the names of all students enrolled for a minimum of 12 graded credits excluding courses taken on a pass/fail basis and whose GPA for that semester is 3.5 or better will appear on the Dean's List. The distinction will be noted on the student's transcript.

Part-time Students: Following the completion of each semester, the same criteria for honors for full-time students will be applied to part-time day and evening students. Students must have an academic load of a minimum of six credit hours excluding courses taken on a pass/fail basis. The names of students whose

GPA for that semester is 3.5 or better will appear on the Dean's List. The distinction will be noted on the student's transcript.

The Dean's List is posted for matriculated undergraduate students only. Any student receiving an incomplete grade in a semester is ineligible for academic honors in that semester.

## Electives

Having met the LASC requirements and those of the major (and minor, where applicable), a student may elect other courses without restriction to complete the 120 semester hours of credit necessary for graduation. The purpose of elective courses is to encourage exploration in diverse fields of knowledge. Therefore, students are urged to take advantage of the opportunity to broaden and deepen their intellectual development.

## General Requirements for the Baccalaureate Degree

Candidates for a baccalaureate degree must complete 120 semester-hour credits with a minimum overall GPA of 2.0 and a minimum 2.0 GPA or higher in the departmental and ancillary courses in their major. To receive a baccalaureate degree from Worcester State University, a student must:

- complete 30 of the last 40 credits at Worcester State University
- earn a majority of credits in the major at Worcester State University
- earn a majority of credits in the minor (if elected) at Worcester State University.

Students completing their degrees within six years must meet the degree requirements of the catalog under which they enter Worcester State University. After six years, students are subject to the degree requirements of the catalog in effect for their year of graduation.

Second Baccalaureate Degree: A student who holds a bachelor's degree from Worcester State University or another four-year institution of higher education accredited by regional accrediting agencies may be awarded a second bachelor's degree by completing a minimum of 30 additional semester hours of prescribed work at Worcester State University after
matriculation into the second degree program. Twelve semester hours of the 30 must be in upperlevel work in the student's major, and the student must meet all requirements for that major. In addition, in order to be granted a second degree, the student must meet all current catalog requirements for a baccalaureate degree at Worcester State University, as follows:

- All courses from the former institution which the Office of Admissions deems usable towards fulfillment of requirements currently existing at Worcester State University will be transferred to the student's second baccalaureate program.
- All courses transferred into the student's major for the second degree are subject to the approval of the Department Chair.
- As many credits from the former institution as are deemed appropriate by the Office of Admissions will be transferred to the student's second degree program as elective credits (up to and not to exceed 90 credits).

Post-baccalaureate students who seek a second major but do not seek a second baccalaureate degree at Worcester State University will receive a letter from the Registrar certifying completion of the second major upon completion of all prerequisites to the major and all requirements of the major. After matriculation into either post-baccalaureate program, no additional transfer credits will be allocated as graduation credit.

## Good Student Policy

Some private organizations, such as insurance companies, offer discounts to college students who are considered "good students". Worcester State University certifies students as "good students" for this purpose using a specific set of academic criteria. To qualify for certification of Good Student Discount eligibility, Worcester State University students shall meet one or more of the following criteria:

- The student has a grade point average of " B " or higher for the most recent term.
- The student has a cumulative grade point average of " B " or higher.
- The student is on the Dean's List.


## Graduation Honors

According to the degree of academic excellence, graduates may be awarded the distinctions of cum laude, magna cum laude, or summa cum laude. Students graduating with honors must attain the following cumulative GPA based on all credits earned at Worcester State University (minimum 48 credit hours for transfer and second degree students).

| Honor | GPA |
| :--- | :--- |
| Cum Laude | $3.5-3.69$ |
| Magna Cum Laude | $3.7-3.89$ |
| Summa Cum Laude | $3.9-4.00$ |

## Intent to Graduate

The degree and diploma will be granted within 60 days of the final day of examinations for the semester in which degree requirements have been met providing that students have adhered to the following deadlines for filing an Intent to Graduate Form:

| Date of Completion | Deadline |
| :--- | :--- |
| December completion: | Last Friday of October |
| May completion: | Last Friday of December |
| August completion: | Last Friday of May |

## International Programs International Students

Worcester State University is authorized to host both F-1 and J-1 international students, scholars, and professors. The Office serves the Worcester State University international community in a variety of ways, including pre-attendance visa advising, oncampus orientation and comprehensive support services throughout the duration of students' academic programs at Worcester State University.

All international students must have a valid student visa to travel to the U.S. and are required to pursue a full course of study at all times. Under the policy of the US Department of Homeland Security, all international students must report to the Office of International Programs after their initial entry into the U.S. and at the start of each semester thereafter. Additional information on international applicants can be found on the Admissions page.

## Education Abroad

Worcester State University strongly encourages students to participate in some form of study abroad experience during their time as an undergraduate. To participate, students must have a minimum GPA of 2.0 and sophomore standing. To facilitate such opportunities, Worcester State University offers an array of domestic and international exchange opportunities. Worcester State University students can earn academic credit on both short and longterm programs throughout the year. All major courses must be approved with the assistance of academic departments in advance of travel for credits to transfer back to Worcester State University. LASC requirements must be approved by the LASC coordinator. The grades earned for study abroad will be posted as letter grades which will not factor into the student's GPA. Interested students are strongly advised to communicate their intention to study abroad early in their academic career.

## International Exchange Opportunities

Worcester State University has entered into multiple exchange and university partnership agreements with institutions in a variety of locales including the U.K., China, South Korea, and the Czech Republic. Courses are offered in English and students have the opportunity to learn the native language as well. Per the conditions of the exchange agreements, Worcester State University students pay Worcester State University tuition and fees to Worcester State University and accommodation fees to the host institution.

## The National Student Exchange

The National Student Exchange (NSE) offers students the opportunity to participate in exchange opportunities with nearly 200 institutions in the U.S., Canada, and the U.S. territories enabling participating students to attend another NSE school at either the home or host school in-state tuition rate. Reciprocal tuition exchanges are available in 48 states including Alaska and Hawaii and in the three U.S. territories of Guam, Puerto Rico and the U.S. Virgin Islands. NSE offers students the opportunity to live and learn in a different academic and geographical setting for up to one academic year. The NSE requires a minimum GPA of 2.5 and sophomore standing to participate.

## Short-Term Programs

Worcester State University offers a variety of shortterm, one to four weeks, programs each academic year. Popular destinations include: the U.K., Ireland, Spain, Portugal, and the Dominican Republic. These programs are offered over January Break, Spring Break, and during the summer semesters. These faculty-led credit-bearing overseas learning experiences are focused and affordable and are designed to provide greater accessibility to students and to cover a breadth of academic interests and geographical destinations. All students are eligible for participation provided they meet the minimum program requirements.

## Intensive English Language Institute (IELI)

The Intensive English Language Institute offers students the opportunity to attain English language fluency and U.S. cultural competencies to succeed in college or university studies. IELI offers both fulltime and part-time programs providing top quality English as a Second Language (ESL) instruction to international students and working professionals. Courses are not for credit.

In the Intensive ESL Program, students study academic English up to 20 hours per week to rapidly improve their fluency and competency. Classes meet in the Fall and Spring for 14 weeks and in the summer for a 10 week session. Core courses focus on reading, writing, listening, speaking, pronunciation, grammar and preparation for the iBT TOEFL examination. The full-time program meets requirements for an $\mathrm{F}-1$ student visa.

ESL classes in the Community Program meet 4 hours per week. Students improve their English for work, further education, or general fluency.

Placement tests are required for all students to determine the best level for IELI courses.

## Bridge to University Program

IELI offers a Bridge to University Program, a postsecondary program of study that combines ESL courses with WSU credit courses from Liberal Arts and Sciences (LASC) curriculum. Successful
completion of this program will enable students to meet prerequisite requirements of full admission to a degree program.

Students are required to maintain full-time status (as defined by federal regulations) while engaging in a combination of remedial and non-remedial coursework preparing them for matriculation to WSU. The program is offered in the fall and spring semesters.

## Laptop and Technology Requirement

Entering full- and part-time first-year and transfer students are required to own a laptop computer when they arrive on campus. For more information please visit Laptop Purchase Program.

## Liberal Arts and Sciences Curriculum WSU - Pathways to Discovery

An education in the liberal arts and sciences enables students to understand their world, and it equips them to analyze, appreciate, and affect that world. With these aims in mind, the faculty at Worcester State University have designed the University's Liberal Arts and Sciences Curriculum (LASC) to ensure breadth both in the range of subjects that students will encounter and in the range of approaches to that material. In addition, the Liberal Arts and Sciences Curriculum emphasizes the fundamental abilities and attitudes that make it possible to benefit fully from a liberal education. While the specialization provided by major and minor fields of study is essential to a college education, the breadth and integration provided by the Liberal Arts and Sciences Curriculum supply an invaluable context for understanding the wider world.

Given the crucial importance of languages other than English in today's global society, the University strongly encourages the study of world languages, through the majors and minors, and also through combining the requirements in Global Perspectives and Thought, Language, and Culture. Students may also choose to study languages through their elective courses.

The Liberal Arts and Sciences Curriculum is aimed at achieving the following student learning outcomes. Having completed courses in the Liberal Arts and Sciences Curriculum, students will:

- Demonstrate effective oral and written communication.
- Employ quantitative and qualitative reasoning.
- Apply skills in critical thinking.
- Apply skills in information literacy.
- Display an appreciation for the interrelations among global and cross-cultural communities.
- Develop a critical understanding of the U.S. experience.
- Understand the roles of science and technology in the modern world.
- Demonstrate and value personal creative expression.
- Understand how scholars in various disciplines approach problems and construct knowledge.
- Display socially responsible behavior and act as socially responsible agents in the world.
- Make connections across courses and disciplines.
- Develop as healthy individuals - physically, emotionally, socially, ethically, and intellectually.


## Core Course Requirements

Core courses may not double with content area course requirements.

- Writing (WR1, WR2) (p. 64)
- Constitutions (CON) (p. 47)
- First-Year Seminar (FYS) (p. 50)


## Content Area Course Requirements

Students will complete courses in nine content areas.

- Creative Arts (CA) (p. 48)
- Diversity (DIV) (p. 49)
- Human Behavior and Social Processes (HBS) (p. 53)
- Individual and Community Well-being (ICW) (p. 55)
- Global Perspectives (GP) (p. 51)
- Natural Systems and Processes (NSP) (p. 58)
- Natural Systems and Processes (LAB) (p. 57)
- Non-approved LASC lab (NLL) courses do not meet the requirement for a LASC LAB course
- Quantitative Reasoning (QR) (p. 59)
- Thought, Language, and Culture (TLC) (p. 61)
- The United States and Its Role in the World (USW) (p. 60)


## LASC Transfer Policies

The following are the default transfer equivalences. When courses transfer into specific Worcester State courses, they carry specific LASC designations, however, the transferred courses will meet LASC requirements in the same way as the courses into which they have transferred.

- Mathematics courses will be transferred as QR for maximum of six credits in LASC.
- Science courses in Physics, Chemistry, Biology, and GeoSciences transfer as NSP for a maximum of seven credits. A lab science course transfers as a NSP lab course.
- Psychology, Economics, Political Science, Anthropology, Cultural Geography, Sociology, and Education courses transfer as HBS for a maximum of three credits.
- Philosophy, Literature, Religion, Communication (theory), and Language courses transfer as TLC for a maximum of three credits.
- Art, Communication (applied), Music, and Theatre courses transfer as CA for a maximum of three credits.
- Health and Nutrition courses transfer as ICW for a maximum of three credits.
- History courses transfer as USW, GP or TLC for a maximum of six credits.
- All other transfer courses will be reviewed individually by the LASC Program Coordinator, in consultation with appropriate academic departments, the LASC Advisory Board, or the Associate Vice President for Academic Affairs.


## Major and Minor Courses Counting Toward LASC

- For students who entered WSU prior to Fall 2021, courses in the Liberal Arts and Sciences Curriculum may not be used to meet the primary
requirements of a first major, but may be used to satisfy the requirements of a second major or a minor.
- Student who entered WSU in Fall 2021 or later, that is, those under MajorPlus, may apply up to three courses approved for different LASC requirements from their first major toward LASC requirements. All courses in a second major or any minor that meet LASC requirements are eligible for LASC credit.


## Constitutions (CON)

## (3 credits)

Students must complete one course that teaches the constitutions of the United States and the Commonwealth of Massachusetts. Courses which meet this requirement will:

- Require students to study the Constitutions of the Commonwealth of Massachusetts and of the United States.
- Consider the historical context, addressing
- antecedents in English law
- the idea of written fundamental law
- the context of colonial history
- failed predecessors (e.g., the 1778 constitutions and the Articles of Confederation)
- mechanism of drafting, ratification, and amendment
- influence of the Massachusetts Constitution on the U.S. Constitution.
- Consider political thought in contemporary society, addressing
- how each constitution shapes modern life
- differing interpretations, including by the courts
- current issues related to each constitution
- basic national, state and/or local political processes, and the rights and obligations of citizenship.

| Code | Title | Credits |
| :--- | :--- | ---: |
| HI-111 | US History to 1877 | 3 |
| HI-112 | US History 1865 to the | 3 |
|  | Present |  |
| HI-140 | We the People | 3 |


| HI-218 | US Constitutional History I | 3 |
| :--- | :--- | :--- |
| HI-219 | US Constitutional History II | 3 |
| HI-320 | Citizen Nation | 3 |
| PH-151 | Race, Gender, and the Law | 3 |
| PH-231 | Philosophy of Law | 3 |
| PO-110 | American Government | 3 |
| PO-150 | Foundations of Legal <br> Studies | 3 |
| PO-217 | The U.S. Congress | 3 |
| PO-218 | US Constitutional History I | 3 |
| PO-219 | US Constitutional History II | 3 |
| PO-318 | Constitutional Law of <br> Government Powers And <br> Constraints | 3 |
| PO-319 | Constitutional Law of Civil <br> Rights and Liberties | 3 |
| PO-320 | Citizen Nation | 3 |
| PO-380 | American Foreign Policy <br> Since the Cold War | 3 |

## Creative Arts (CA)

## (3 credits)

Students must complete one course.
Courses in this area:

- Encourage recognition that artistic expression varies from one society and culture to another.
- Explore different traditions, styles and historical periods in the arts.
- Promote freedom of expression and tolerance of divergent viewpoints.
- Consider the importance of aesthetics and instill an awareness of how the arts improve the quality of life.
- Enable each student to cultivate his/her/their creative potential.
- Teach the terminology, techniques and skills that comprise the arts in order to provide the framework for informed creativity.

| Code | Title | Credits |
| :--- | :--- | ---: |
| AR-100 | Cross Media Studio | 3 |
| AR-118 | Global Art History | 3 |
| AR-123 | Design Fundamentals | 3 |
| AR-130 | Painting I | 3 |
| AR-140 | Drawing Fundamentals | 3 |
| AR-150 | Life Studio I | 3 |


| AR-165 | Creating Cultural Forms | 3 |
| :---: | :---: | :---: |
| AR-210 | Drawing and Painting Studio | 3 |
| AR-215 | Topics in Art | 3 |
| AR-221 | Studio Art Practicum | 3 |
| AR-225 | Art Since Mid-20th Century | 3 |
| AR-230 | Printmaking | 3 |
| AR-235 | 3D Sculpture Studio | 3 |
| AR-240 | Watercolor | 3 |
| AR-260 | Visual Arts in the Schools | 3 |
| AR-270 | Driftwood to Dumpsters | 3 |
| AR-285 | History of Photography | 3 |
| AR-308 | Thesis Seminar | 3 |
| CM-150 | Photography I | 3 |
| CM-151 | Introduction to Digital Photography | 3 |
| CM-160 | Introduction to Digital Imaging | 3 |
| CM-241 | Understanding Movies | 3 |
| CM-242 | Understanding Video Games | 3 |
| CM-244 | Graphic Design I | 3 |
| CM-259 | Television Production | 3 |
| CM-260 | Introduction to Video | 3 |
| CM-285 | History of Photography | 3 |
| CM-315 | Social Media | 3 |
| CM-360 | Television Production II | 3 |
| CM-396 | Video Editing | 3 |
| ED-348 | Teaching Children's Literature | 3 |
| EN-165 | Oral Literature: the Art of Storytelling | 3 |
| EN-168 | Film and Literature | 3 |
| EN-230 | Environmental Literature | 3 |
| EN-256 | Creative Writing: Fiction | 3 |
| EN-257 | The Power of Memoir | 3 |
| EN-258 | Creative Writing: Nonfiction | 3 |
| EN-260 | Creative Writing: Poetry I | 3 |
| EN-262 | Creative Writing: Poetry II | 3 |
| EN-268 | Journalism: Feature Writing | 3 |
| EN-353 | Narrative Journalism | 3 |
| HE-140 | Creative Arts and Health | 3 |
| HI-227 | American Popular Art and Architectural History | 3 |
| HI-375 | Popular Music and Performance in Modern Africa | 3 |
| MU-101 | Fundamentals of Music and Aural Skills | 3 |
| MU-104 | Class Piano | 1 |


| MU-115 | Music Appreciation | 3 |
| :---: | :---: | :---: |
| MU-125 | Jazz Appreciation | 3 |
| MU-140 | World Music | 3 |
| MU-185 | Composition I | 3 |
| MU-205 | Music Theory I | 3 |
| MU-215 | Chorus and Music Theory | 3 |
| MU-220 | Chorus | 0.5-1 |
| MU-222 | African Drumming | 0.5-3 |
| MU-223 | African Drumming II | 3 |
| MU-228 | Piano Ensemble | 1 |
| MU-231 | Women in Music | 3 |
| MU-237 | Music in the Elementary School | 3 |
| MU-250 | Music of the Cinema:Spectacle, Splendor, And Spielberg | 3 |
| MU-280 | History of Music | 3 |
| MU-300 | Chorale | 0.5-1 |
| MU-305 | Music Theory II | 3 |
| MU-321 | Small Ensemble | 0.5-1 |
| MU-326 | Chamber Orchestra | 0.5-3 |
| NH-257 | The Power of Memoir for Narratives of Health and Medicine | 3 |
| NH-260 | Creative Writing: Poetry I for Narratives of Health and Medicine | 3 |
| PH-262 | Philosophy of Art | 3 |
| PY-110 | Astrophotography | 3 |
| SO-235 | Music and Social Change | 3 |
| SP-331 | Spanish Civilization | 3 |
| TH-126 | Script Analysis | 3 |
| TH-145 | Acting I | 3 |
| TH-175 | Introduction to Stagecraft | 3 |
| TH-191 | Introduction to the Theatre | 3 |
| TH-263 | Concepts of Theatre Design | 3 |
| TH-270 | History of American Entertainment I | 3 |
| TH-271 | History of American Entertainment II | 3 |
| TH-272 | History of Costume | 3 |
| TH-274 | Stage Management | 3 |
| TH-290 | Theatre for Young Audiences | 3 |
| TH-292 | Applied Theatre and Community Engagement | 3 |
| TH-321 | Rehearsal and Performance | 3 |
| TH-348 | Stage Combat | 3 |
| TH-360 | Scenic Design for Theatre | 3 |


| TH-370 | Costume D |
| :--- | :--- |
| TH-390 | Lighting De |
| VP-200 | Critical Thi |
| VP-210 | Contempor |
| Diversity | (D\|V) |
| (3 credits) |  |

Students must complete one course in the diversity area. Courses which meet this requirement will:

- Compare/contrast intersectional structural inequalities within society, including those that maintain privilege.
- Examine the ways structural inequality, including privilege, has shaped/continues to shape the lived experiences of the individual and/or multiple groups within society.
- Discuss materials written or co-written by members of diverse groups that explain their lived experience in their own voices.
- Compare/contrast materials written or co-written by members of diverse groups that explain their lived experiences in their own voices with materials written by majority group members.
- Describe the contributions of diverse individuals within the area of study.
- Examine how one's multiple social identities, including privileged identities, inform/impact one's interactions with others.
- Critically apply the language and methodologies used by scholars of diversity within the respective field.
- Distinguish facts from opinion regarding diversity within the field and society broadly.
- Describe the need for a social justice and equitybased approach to the field.

| Code | Title | Credits |
| :--- | :--- | ---: |
| CM-213 | Gender and the Media | 3 |
| CM-384 | Media Criticism | 3 |
| ED-270 | Diversity \& Multicultural Ed | 3 |
| ED-304 | Best Practices for English | 3 |
|  | Language Learners |  |
| ED-339 | Children's Literature: | 3 |
|  | Multicultural Literature for <br> PK-9 |  |
| EN-115 | LGBTQ+ Narratives | 3 |


| EN-132 | World Literature | 3 |
| :---: | :---: | :---: |
| EN-164 | Fantasy, Faerie and Folk Fairy and Folk Tales From Around the World | 3 |
| EN-167 | Literature and Human Rights | 3 |
| EN-170 | Search for Identity | 3 |
| EN-210 | U.S. Literature (Beginnings-1865) | 3 |
| EN-211 | U.S. Literature (1865Present) | 3 |
| EN-322 | Community Writing | 3 |
| EN-358 | Disability Stories, Disability Studies | 3 |
| EN-370 | Antislavery Literature | 3 |
| HC-202 | Introduction to Global Health | 3 |
| HI-155 | World History Through Film | 3 |
| HI-203 | The United States Since 1945 | 3 |
| HI-205 | Native America | 3 |
| HI-217 | US Social History | 3 |
| HI-263 | The Modern Middle East, 1900-present | 3 |
| HI-274 | The History of Gender and Sexuality in America | 3 |
| HI-278 | African History Before 1800 | 3 |
| HI-279 | African History Since 1800 | 3 |
| HI-320 | Citizen Nation | 3 |
| HI-336 | Race, Sex, and Power in the American South | 3 |
| HI-345 | Religions in America | 3 |
| IS-100 | Introduction to African and African Diaspora Studies | 3 |
| NU-340 | Nursing Science li: <br> Pediatrics (track I) | 4.5 |
| NU-346 | Nursing Science li: Pediatrics (track lii) | 3.5 |
| NU-432 | Advanced Nursing Perspectives in Chronic Illness (Track II) | 3 |
| PH-151 | Race, Gender, and the Law | 3 |
| PH-231 | Philosophy of Law | 3 |
| PH-240 | Political Theory | 3 |
| PH-241 | Genocide and Human Rights | 3 |
| PH-242 | Race, Nation, Class, Gender and Sexuality | 3 |
| PH-251 | Mass Violence Against Women | 3 |
| PH-254 | Feminist Theory | 3 |
| PH-327 | Feminist Medical Ethics | 3 |


| PO-120 | Global Politics | 3 |
| :---: | :---: | :---: |
| PO-203 | Gender, War and Peace | 3 |
| PO-204 | Women in Politics | 3 |
| PO-205 | Poverty and Development | 3 |
| PO-243 | City Politics | 3 |
| PO-264 | American Political Thought | 3 |
| PO-320 | Citizen Nation | 3 |
| PO-327 | Global South Leadership in the United Nations | 3 |
| So-190 | Sport and Society | 3 |
| so-200 | Contemporary Social Problems | 3 |
| S0-201 | Prejudice, Privilege, and Power | 3 |
| S0-228 | Latinx Experiences in the U.s. and the World | 3 |
| So-303 | Environmental Sociology | 3 |
| S0-307 | Puerto Rican Diaspora | 3 |
| so-312 | Youth, Race, and Public Space | 3 |
| S0-318 | Worcester and Its Discontents | 3 |
| S0-320 | Sociology of Race and Ethnicity | 3 |
| So-350 | Wealth, Poverty, and Power | 3 |
| SO-360 | Urban Sociology | 3 |
| UR-201 | Introduction to Urban Policy | 3 |
| UR-214 | Urban Demography | 3 |
| UR-220 | Immigrant City | 3 |
| UR-280 | The Queer City | 3 |
| UR-312 | Worcester.A City \& Its People | 3 |
| W0-100 | Introduction to Women's, Gender, and Sexuality Studies | 3 |

## First-Year Seminar (FYS) (3 credits)

All first-time, first-year students and students transferring with fewer than 15 credits will be enrolled in and must complete a First-Year Seminar. The first-year seminar is a three-credit course taught exclusively to first-year students in a small seminar format. First-year seminars are listed with the department prefix, followed by the number 193 (i.e., XX -193). Any make-up of the first-year seminar requirement must be successfully completed within the first 60 credits of study.

In first-year seminars:

1. Students will explore and engage in university opportunities that support transition, academic growth, and cultivate a sense of belonging.
2. Students will formulate solutions to solve problems and negotiate within the institution and the world around them.
3. Students will formulate solutions to problems involving time management, organizational planning, conflict resolution, deliberation.
4. Students will formulate solutions to problems involving academic skills including critical thinking, technological and information literacy, and effective written and oral communication.
5. Students will explore faculty-driven, innovative topics chosen to specifically engage first-year students.

Each first year seminar will have four components:

## Faculty-Driven Content (25\%)

Faculty-driven, innovative topics chosen specifically to engage first year students.

## Application/Assessment of Content (25\%)

Faculty-driven assessment assignments designed to help students develop key skills (e.g., quantitative skills, how to write a research paper in this particular discipline, how to read an academic paper, how to evaluate a source, how to critique a film, and how to do a presentation).

## Transition Topics (25\%)

These are topics relevant to any student transitioning into college and will include some selection of study strategies, how to interact with faculty, executive functioning development, independent functioning, mental and physical well-being, health and wellness, career planning, financial literacy, self-advocacy, resilience/grit, goal-setting, life-long learning skills, diversity/equity/inclusion, and basic research skills.

## WSU-Specific Topics (25\%)

This aspect of a first-year seminar focuses on topics specific to Worcester State, including some selection of the following: the Liberal Arts and Sciences (LASC) general education curriculum, advising, major and minor selection and changes, how to connect with professors and advisors, library skills, career resources, support services, IT information and basic computer skills assessment, navigating life at WSU as a commuter or residential student, engagement of WSU speaking events and other
campus activities, volunteer opportunities and civic/ community engagement, scholarships, research and travel fund opportunities, student leadership opportunities, the Presidential Student Ambassador program, study abroad options, mandatory onboard activities, fall faculty research day, WSU communication tools (email/Student Planning/ Blackboard), and other support tools available to students (e.g., undergraduate catalog, Degree Audit, glossary of commonly used terms).

## Global Perspectives (GP) (3 credits)

Students must complete one 3-credit course.
Courses in this area:

- Study the culture, history, or language of a nation or geopolitical area other than the U.S.
- Consider culture, power, and place in phenomena such as globalization, cultural colonialism, transnationalism, and human rights.
- Investigate issues about the environment and sustainable development in phenomena such as the use of natural resources and macroeconomic problems that affect people and ecosystems around the world.
- Study governance, peace, and justice in a global context.
- Analyze the international political economy in relation to governments, enterprises, societal groups, and communities from different countries.
- Consider issues such as race, class, gender, age, sexuality, language, ability, indigeneity, transnational labor, and refugee migration.

| Code | Title | Credits |
| :--- | :--- | ---: |
| AR-118 | Global Art History | 3 |
| AR-140 | Drawing Fundamentals | 3 |
| AR-165 | Creating Cultural Forms | 3 |
| AR-215 | Topics in Art | 3 |
| AR-225 | Art Since Mid-20th Century | 3 |
| AR-235 | 3D Sculpture Studio | 3 |
| AS-101 | Introduction to Asian Studies | 3 |
| BI-112 | Diseases and Mankind | 3 |
| BI-114 | Plants and Human Affairs | 3 |
| BI-130 | Field Biology | 4 |



| PO-201 | International Relations Theory | 3 | Human Behavior and Social |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| PO-202 | Globalization | 3 | Processes (HBS) |  |  |
| PO-203 | Gender, War and Peace | 3 | (3 credits) |  |  |
| PO-205 | Poverty and Development | 3 |  |  |  |
| PO-220 | European Politics | 3 | Students must complete one 3-credit course. |  |  |
| PO-221 | Asian Politics | 3 | Courses in this area: |  |  |
| PO-222 | Latin American Politics | 3 |  |  |  |
| PO-224 | Middle Eastern Politics | 3 | - Develop an understanding of how factors such as market forces, politics, demographics, physical environment, and culture affect individual behavior and thinking. |  |  |
| PO-240 | The United Nations and Global Governance | 3 |  |  |  |
| PO-241 | English Constitutional History | 3 | - Examine political, economic, and social structures and the interplay between the |  |  |
| PO-301 | International Law | 3 |  |  |  |
| P0-327 | Global South Leadership in the United Nations | 3 | - Explore the ways in which the individual is an agent in shaping and understanding his or her own experiences. |  |  |
| S0-230 | Political Sociology | 3 |  |  |  |
| S0-270 | Social Theory I | 3 |  |  |  |
| SO-303 | Environmental Sociology | 3 | - Consider the ways in which individual and social roles and identities are socially constructed. |  |  |
| S0-307 | Puerto Rican Diaspora | 3 |  |  |  |
| S0-320 | Sociology of Race and Ethnicity | 3 | - Show how the results of social research can be used to effect social change. |  |  |
| S0-332 | Contemporary Immigrant Experiences | 3 | - Teach the differences between and appropriate uses of qualitative and quantitative research |  |  |
| S0-350 | Wealth, Poverty, and Power | 3 |  |  |  |
| So-360 | Urban Sociology | 3 | - Investigate the ways in which scientific inquiry is value-laden. |  |  |
| S0-425 | Global Capitalism | 3 |  |  |  |
| SP-101 | Beginning Spanish I | 3 | - Help students understand the ways in which the various social sciences inform one another. |  |  |
| SP-102 | Beginning Spanish II | 3 |  |  |  |
| SP-191 | Special Topics in Spanish | 3 | Code | Title | Credits |
| SP-210 | Intermediate Spanish I | 3 | BI-111 | Social Biology | 3 |
| SP-211 | Intermediate Spanish II | 3 |  |  |  |
| SP-292 | Spanish for Women's Health | 3 | BI-125 | Women in Science | 3 |
| SP-294 | Spanish for the Nutrition and Dietitian Professional | 3 | BT-101 | Introduction to Forensic Sciences | 4 |
| SP-326 | Spanish for the Professions | 3 | CD-100 | Introduction to Human Communication and its Disorders | 3 |
| SP-332 | Cultures of Latin America | 3 |  |  |  |
| SP-333 | Hispanic Presence in US | 3 | CJ-101 | Introduction to Criminal Justice | 3 |
| TH-235 | History of Theatre | 3 |  |  |  |
| UR-280 | The Queer City | 3 | CJ-215 | Art Crimes | 3 |
| UR-285 | Urban Anthropology | 3 | CM-100 | Intro to Mass Communication | 3 |
| UR-290 | Gender and the City | 3 |  |  |  |
| UR-319 | Transportation Planning | 3 | CM-103 | Survey of Radio and Television | 3 |
| UR-332 | Global Cities | 3 |  |  |  |
| WL-101 | Beginning World Language | 3 | CM-180 | Introduction to Advertising | 3 |
| WL-102 | Beginning World Language II | 3 | CM-213 | Gender and the Media | 3 |
|  |  |  | CM-240 | Principles of Public Relations Practices | 3 |


| CM-384 | Media Criticism | 3 |
| :---: | :---: | :---: |
| CM-400 | Advertising and Public Relations Research | 3 |
| CM-405 | Mass Communication Research | 3 |
| CM-416 | Media Law and Ethics | 3 |
| EC-110 | Introduction to Microeconomics | 3 |
| EC-120 | Introduction to Macroeconomics | 3 |
| ED-149 | Introduction to the Teaching Profession Middle/ Secondary School | 3 |
| ED-150 | Introduction to the Teaching Profession | 3 |
| ED-160 | Early Childhood Education Today | 3 |
| ED-305 | Teaching Adult ESL and SIFE | 3 |
| ED-339 | Children's Literature: <br> Multicultural Literature for PK-9 | 3 |
| EN-217 | Introduction to Narrative Studies of Health and Medicine | 3 |
| EN-358 | Disability Stories, Disability Studies | 3 |
| ET-100 | Introduction to Ethnic Studies | 3 |
| GE-102 | Human Geography | 3 |
| GE-250 | Urban Geography | 3 |
| GE-285 | Sustainable Communities | 3 |
| HE-220 | Mental Health Education | 3 |
| HI-218 | US Constitutional History I | 3 |
| HI-219 | US Constitutional History II | 3 |
| H-228 | Currency, Commodities, and Crashes: Global Economic History, 1500-2000 | 3 |
| HI-241 | English Constitutional History | 3 |
| HI-322 | Nationalism | 3 |
| HI-334 | Environmental Crisis and Management in China | 3 |
| HR-100 | Introduction to Human Rights and Social | 3 |
| IS-160 | Introduction to Gerontology | 3 |
| PB-200 | Introduction to Psychobiology | 4 |
| PH-100 | Introduction to Philosophy | 3 |
| PH-102 | History of Modern Western Philosophy 1600-1800 | 3 |


| PH-130 | Ethics: Human Conduct \& Values | 3 |
| :---: | :---: | :---: |
| PH-131 | Medical Ethics | 3 |
| PH-132 | Business Ethics | 3 |
| PH-133 | Social and Political Ethics | 3 |
| PH-134 | Computing Ethics | 3 |
| PH-152 | Philosophy of Love and Sex | 3 |
| PH-201 | 19th Century European Philosophy | 3 |
| PH-231 | Philosophy of Law | 3 |
| PH-242 | Race, Nation, Class, Gender and Sexuality | 3 |
| PH-254 | Feminist Theory | 3 |
| PH-260 | Philosophy of Science | 3 |
| PO-110 | American Government | 3 |
| PO-120 | Global Politics | 3 |
| PO-150 | Foundations of Legal Studies | 3 |
| PO-203 | Gender, War and Peace | 3 |
| PO-204 | Women in Politics | 3 |
| PO-205 | Poverty and Development | 3 |
| PO-213 | The Modern Presidency | 3 |
| PO-215 | State and Local Government | 3 |
| PO-216 | Political Parties and Interest Groups | 3 |
| PO-217 | The U.S. Congress | 3 |
| P0-218 | US Constitutional History I | 3 |
| PO-219 | US Constitutional History II | 3 |
| PO-220 | European Politics | 3 |
| PO-221 | Asian Politics | 3 |
| PO-222 | Latin American Politics | 3 |
| PO-224 | Middle Eastern Politics | 3 |
| PO-230 | Campaigns and Elections | 3 |
| PO-240 | The United Nations and Global Governance | 3 |
| PO-241 | English Constitutional History | 3 |
| P0-243 | City Politics | 3 |
| PO-250 | Doing Political Science: an Introduction To Research Methodology | 4 |
| PO-262 | Principles of US Public Policy | 3 |
| P0-265 | Racial and Ethnic Politics | 3 |
| P0-301 | International Law | 3 |
| P0-311 | Environmental Politics and Policy | 3 |
| P0-312 | Health Politics and Policy | 3 |


| PO-334 | Environmental Crisis and Management in China | 3 |
| :---: | :---: | :---: |
| PO-380 | American Foreign Policy Since the Cold War | 3 |
| PS-101 | General Psychology | 3 |
| PS-201 | Career Exploration in Psych | 3 |
| PS-210 | Developmental Psychology | 3 |
| PS-240 | Introduction to Abnormal Psychology | 3 |
| PS-310 | Development of Exceptional Children/Youth | 3 |
| PS-318 | Behavior Management Techniques | 3 |
| PS-326 | Psychological Distress and Well-Being | 3 |
| PS-330 | Theories of Personality | 3 |
| PS-355 | Social and Personality Development | 3 |
| PS-365 | Cultural Psychology | 3 |
| PS-385 | Motivation | 3 |
| PS-391 | Clinical Psychology | 3 |
| So-100 | Introduction to Sociology | 3 |
| SO-190 | Sport and Society | 3 |
| SO-200 | Contemporary Social Problems | 3 |
| SO-201 | Prejudice, Privilege, and Power | 3 |
| SO-207 | First Generation to College: Campus Diversity and College Inequality | 3 |
| SO-215 | Medical Sociology | 3 |
| SO-220 | Sociology of the Family | 3 |
| SO-230 | Political Sociology | 3 |
| SO-235 | Music and Social Change | 3 |
| SO-250 | Sociology of Religion | 3 |
| SO-255 | Sociology of Disability | 3 |
| SO-285 | Race, Class and Gender | 3 |
| SO-295 | Sociology of Death \& Dying | 3 |
| SO-303 | Environmental Sociology | 3 |
| S0-305 | Applied Sociology | 3 |
| S0-312 | Youth, Race, and Public Space | 3 |
| SO-318 | Worcester and Its Discontents | 3 |
| SO-340 | Social Psychology | 3 |
| SO-350 | Wealth, Poverty, and Power | 3 |
| SO-355 | Gender and Sexuality | 3 |
| So-360 | Urban Sociology | 3 |
| SO-425 | Global Capitalism | 3 |


| SP-293 | Health and the Latino <br> Community | 3 |
| :--- | :--- | ---: |
| UR-101 | Introduction to Urban <br> Studies | 3 |
| UR-103 | Introduction to Women's <br> Studies | 3 |
| UR-150 | Introduction to City Research | 3 |
| UR-201 | Introduction to Urban Policy | 3 |
| UR-214 | Urban Demography | 3 |
| UR-230 | Technology, Public Policy <br> and Urban Society | 3 |
| UR-240 | Introduction to Qualitative | 3 |
| Research Methods for the |  |  |
| SR-270 | Lecial Sciences <br> Leadership in Nonprofit and | 3 |
| Public Organizations |  |  |

## Individual and Community Well-being (ICW)

## (3 credits)

Students must complete one 3-credit course.
Courses in this area:

- Explore the growth and development of the individual and address the interconnected dimensions of well-being.
- Study and evaluate the ways that the local, state, national, or private sectors frame and implement social policies, and the consequences of these policies for well-being.
- Examine social structures and practices such as urban and rural development, planning, funding allocations, and legislative initiatives designed to secure the well-being of the community.
- Examine the short- and long-term consequences of beliefs, behaviors, and policies that affect the well-being of individuals and communities.
- Address the role of prevention strategies in promoting well-being.

| Code | Title | Credits | HE-225 | Advanced Nutrition: The | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CD-100 | Introduction to Human Communication and its | 3 |  | Prevention and Treatment of Obesity |  |
|  | Disorders |  | HE-325 | Sports Nutrition | 3 |
| CJ-101 | Introduction to Criminal Justice | 3 | HE-350 | Community Health Education | 3 |
| CJ-354 | Addictions Counseling of Individuals and Families | 3 | HE-354 | Addictions Counseling of Individuals and Families | 3 |
| CM-416 | Media Law and Ethics | 3 | HE-400 | Special Topics | 3 |
| EC-102 | Consumer Economics | 3 | HI-227 | American Popular Art and | 3 |
| EC-104 | Personal Financial Planning | 3 |  | Architectural History |  |
| EC-208 | Economics of Health Care | 3 | HI-290 | Health and Healing in | 3 |
| ED-150 | Introduction to the Teaching Profession | 3 |  | America |  |
|  |  |  | HI-332 | American Environmental | 3 |
| ED-155 | Teaching and Learning in Elementary School | 3 |  | History |  |
|  |  |  | IS-160 | Introduction to Gerontology | 3 |
| ED-205 | An Introduction to SocialEmotional Learning | 3 | J0-101 | Introduction to Journalism | 3 |
|  |  |  | LC-293 | Peer Mentoring | 3 |
| ED-206 | Development and Learning of Typical and Atypical Children Birth to Age 8 | 3 | MU-102 | Applied Music | 1 |
|  |  |  | MU-321 | Small Ensemble | 0.5-1 |
|  |  |  | MU-330 | Jazz Ensemble | 0.5-3 |
| ED-207 | The Adolescent in Schools \& Society | 3 | NU-357 | Global Perspectives in Health | 3 |
| ED-271 | International and Comparative Education | 3 | PH-101 | Ancient Greek Philosophy | 3 |
| ED-285 | Understanding and Supporting Children And Youth With Disabilities | 3 | PH-110 | Critical Thinking | 3 |
|  |  |  | PH-134 | Computing Ethics | 3 |
|  |  |  | PH-152 | Philosophy of Love and Sex | 3 |
| EN-115 | LGBTQ+ Narratives | 3 | PH-171 | Buddhist Philosophy | 3 |
| EN-217 | Introduction to Narrative Studies of Health and Medicine | 3 | PH-180 | Sports and Philosophy | 3 |
|  |  |  | PH-225 | Philosophy of Language | 3 |
|  |  |  | PH-264 | Philosophy of Education | 3 |
| EN-220 | English Literature (beginnings to 1798) | 3 | PH-327 | Feminist Medical Ethics | 3 |
| EN-221 | English Literature (1798- <br> Present) | 3 | PO-160 | Engagement |  |
|  |  |  | PO-312 | Health Politics and Policy | 3 |
| EN-230 | Environmental Literature | 3 | PS-201 | Career Exploration in Psych | 3 |
| EN-272 | News Reporting and Writing I | 3 | PS-210 | Developmental Psychology | 3 |
| EN-322 | Community Writing | 3 | PS-326 | Psychological Distress and | 3 |
| EN-354 | Opinion Writing | 3 |  | Well-Being |  |
| EN-358 | Disability Stories, Disability Studies | 3 | PS-340 | Psychological Testing and Measurement | 3 |
| HC-202 | Introduction to Global Health | 3 | S0-100 | Introduction to Sociology | 3 |
| HC-203 | Introduction to Epidemiology | 3 | SO-201 | Prejudice, Privilege, and | 3 |
| HC-340 | Global Perspective in Public Health | 3 |  | Power |  |
|  |  |  | SO-207 | First Generation to College: | 3 |
| HE-100 | Personal Health | 3 |  | Campus Diversity and |  |
| HE-120 | Health and Nutrition | 3 |  | College Inequality |  |
| HE-220 | Mental Health Education | 3 | SO-215 | Medical Sociology | 3 |
|  |  |  | SO-235 | Music and Social Change | 3 |


| SO-250 | Sociology of Religion | 3 |
| :---: | :---: | :---: |
| SO-255 | Sociology of Disability | 3 |
| S0-295 | Sociology of Death \& Dying | 3 |
| S0-305 | Applied Sociology | 3 |
| S0-312 | Youth, Race, and Public Space | 3 |
| S0-318 | Worcester and Its Discontents | 3 |
| So-340 | Social Psychology | 3 |
| So-355 | Gender and Sexuality | 3 |
| S0-360 | Urban Sociology | 3 |
| SP-290 | Introduction to Medical Spanish I | 3 |
| SP-291 | Introduction to Medical Spanish II | 3 |
| SP-292 | Spanish for Women's Health | 3 |
| SP-294 | Spanish for the Nutrition and Dietitian Professional | 3 |
| SP-295 | The Human Body: Spanish for Anatomy | 3 |
| TH-290 | Theatre for Young Audiences | 3 |
| TH-292 | Applied Theatre and Community Engagement | 3 |
| TH-348 | Stage Combat | 3 |
| UR-103 | Introduction to Women's Studies | 3 |
| UR-217 | Child Advocacy | 3 |
| UR-220 | Immigrant City | 3 |
| UR-230 | Technology, Public Policy and Urban Society | 3 |
| UR-250 | Introduction to Urban Planning | 3 |
| UR-319 | Transportation Planning | 3 |
| UR-320 | Power and Urban Insecurity | 3 |
| W0-100 | Introduction to Women's, Gender, and Sexuality Studies | 3 |

## Natural Systems and Processes (LAB)

Students must complete a minimum of two 3-credit NSP courses (p.58). At least one of the courses taken in this area must have a laboratory component. Note: Non-approved LASC lab (NLL) courses do not meet the requirement for a LASC LAB course.

Courses in this area:

- Study physical and natural systems and processes.
- Apply scientific models, theories, and technology to problems facing society.
- Have an analytical and/or quantitative component and include interpretation, communication and/or presentation of data and results.
- Compare and contrast various modes of scientific inquiry.
- Place scientific inquiry within its historical and contemporary contexts.
- Use and reflect on the scientific method of investigation.
- Address the strengths and limitations of scientific inquiry in human understanding.
- Encourage students to become scientifically literate citizens and be able to evaluate scientific information.

| Code | Title | Credits |
| :---: | :---: | :---: |
| BI-101 | Concepts of Biology | 4 |
| BI-104 | The Human Animal Laboratory | 1 |
| BI-116 | Animal Biology | 4 |
| BI-117 | Humans and the Environment | 4 |
| BI-118 | Dinosaurs | 4 |
| BI-130 | Field Biology | 4 |
| BI-140 | Introduction to Organismal Biology | 4 |
| BI-141 | Intro to Cellular and Molecular Biology | 4 |
| BI-162 | Human Anatomy and Physiology II | 4 |
| BI-206 | Medical Microbiology | 4 |
| BI-354 | Systematics and Evolution | 4 |
| BI-380 | Biodiversity and Conservation Biology | 4 |
| BT-101 | Introduction to Forensic Sciences | 4 |
| CH-112 | Survey of Chemistry | 4 |
| CH-435 | Advanced Laboratory Experience | 2 |
| EV-120 | Integrated Environmental Science for Educators | 4 |
| EV-380 | Biodiversity and Conservation Biology | 4 |
| GS-140 | Physical Geology | 4 |


| GS-180 | Field Geoscience | 4 |
| :--- | :--- | :--- |
| PB-200 | Introduction to <br> Psychobiology | 4 |
| PY-105 | Concepts in Physics I | 3 |
| PY-221 | General Physics I | 4 |
| PY-222 | General Physics II | 4 |
| PY-241 | Physics I (Mechanics) | 4 |
| PY-242 | Physics II ( Electricity, <br> Magnetism and Optics ) | 4 |
| PY-250 | Observational Astronomy | 3 |

## Natural Systems and Processes (NSP)

## (minimum of 6 credits)

Students must complete a minimum of two NSP 3credit courses. At least one of the courses taken in this area must have a laboratory component (p. 57). Note: Non-approved LASC lab (NLL) courses do not meet the requirement for a LASC NSP course.

Courses in this area:

- Study physical and natural systems and processes.
- Apply scientific models, theories, and technology to problems facing society.
- Have an analytical and/or quantitative component and include interpretation, communication and/or presentation of data and results.
- Compare and contrast various modes of scientific inquiry.
- Place scientific inquiry within its historical and contemporary contexts.
- Use and reflect on the scientific method of investigation.
- Address the strengths and limitations of scientific inquiry in human understanding.
- Encourage students to become scientifically literate citizens and be able to evaluate scientific information.

| Code | Title | Credits |
| :--- | :--- | ---: |
| BI-101 | Concepts of Biology | 4 |
| BI-103 | The Human Animal | 3 |
| BI-104 | The Human Animal <br> Laboratory | 1 |


| BI-109 | Writing in the Natural Sciences | 3 |
| :---: | :---: | :---: |
| BI-111 | Social Biology | 3 |
| BI-112 | Diseases and Mankind | 3 |
| BI-114 | Plants and Human Affairs | 3 |
| BI-116 | Animal Biology | 4 |
| BI-117 | Humans and the Environment | 4 |
| BI-118 | Dinosaurs | 4 |
| BI-119 | Biology of Sex | 3 |
| BI-120 | Darwinian Revolution | 3 |
| BI-125 | Women in Science | 3 |
| BI-130 | Field Biology | 4 |
| BI-140 | Introduction to Organismal Biology | 4 |
| BI-141 | Intro to Cellular and Molecular Biology | 4 |
| BI-162 | Human Anatomy and Physiology II | 4 |
| BI-206 | Medical Microbiology | 4 |
| BI-271 | Basic Kinesiology | 3 |
| BT-101 | Introduction to Forensic Sciences | 4 |
| CD-110 | Anatomy and Physiology of Speech And Hearing | 3 |
| CD-230 | Neuroscience for Communication Sciences and Disorders | 3 |
| CH-106 | Paper Or Plastics? | 3 |
| CH-112 | Survey of Chemistry | 4 |
| CH-215 | Science of Stuff | 4 |
| CH-250 | Instrumental Technology for Forensic Analysis | 4 |
| EV-110 | Meteorology | 3 |
| EV-120 | Integrated Environmental Science for Educators | 4 |
| EV-130 | Environmental Problems and Solutions | 3 |
| EV-150 | Environmental Science | 3 |
| EV-218 | Introduction to Remote Sensing | 3 |
| EV-220 | Energy and the Environment | 3 |
| EV-348 | Fundamentals of Earth Data Analytics | 4 |
| GS-101 | Physical Geography | 3 |
| GS-110 | Meteorology | 3 |
| GS-140 | Physical Geology | 4 |
| GS-150 | Humans and the Cold Regions | 3 |


| GS-165 | Geographic Information Systems I | 4 |
| :---: | :---: | :---: |
| GS-180 | Field Geoscience | 4 |
| GS-218 | Introduction to Remote Sensing | 3 |
| GS-348 | Fundamentals of Earth Data Analytics | 4 |
| HC-203 | Introduction to Epidemiology | 3 |
| HE-270 | Psychopharmacology | 3 |
| HI-332 | American Environmental History | 3 |
| HI-334 | Environmental Crisis and Management in China | 3 |
| PB-200 | Introduction to Psychobiology | 4 |
| PH-200 | Knowledge and Reality | 3 |
| PH-220 | Philosophy of Mind | 3 |
| PH-237 | Philosophy of Space and Time | 3 |
| PO-311 | Environmental Politics and Policy | 3 |
| PO-334 | Environmental Crisis and Management in China | 3 |
| PS-230 | Brain and Behavior | 3 |
| PS-270 | Psychopharmacology | 3 |
| PS-280 | Sensation and Perception | 3 |
| PY-101 | Introduction to Astronomy | 3 |
| PY-105 | Concepts in Physics I | 3 |
| PY-110 | Astrophotography | 3 |
| PY-114 | Physics of Waves | 3 |
| PY-217 | General Astronomy | 3 |
| PY-220 | Energy and the Environment | 3 |
| PY-221 | General Physics I | 4 |
| PY-222 | General Physics II | 4 |
| PY-241 | Physics I (Mechanics) | 4 |
| PY-242 | Physics II (Electricity, <br> Magnetism and Optics ) | 4 |
| PY-250 | Observational Astronomy | 3 |

## Quantitative Reasoning (QR) (minimum of 6 credits)

Students must complete a minimum of two 3-credit QR courses, one of which must be a college-level mathematics course taught by the Mathematics Department, numbered "MA-XXX," and specifically approved for QR credit. Terms such as "math," "mathematics," "quantitative," or similar in a course title or description do not guarantee that a course
meets the above criteria, and courses such as MA 098 and MA 099 do not qualify because they do not satisfy the QR requirement. The MA course must be completed within the first 60 credits of study, though exceptions may apply for transfer students. All students must pass the Math Placement Test at the stipulated level in order to register for a MA course above MA 105.

Courses in this area:

- Acquaint students with formal systems, procedures, and sequences of operations.
- Strengthen students' understanding of variables and functions.
- Apply mathematical techniques to the analysis and solution of real-life problems.
- Develop an understanding of and facility with statistical analysis, including an understanding of its applications and limitations. Courses meeting these criteria must emphasize why statistical inference works and not simply how to use statistical techniques.
- Strengthen understanding of the relationship between algebraic and graphical representations.
- Emphasize the importance of accuracy, including precise language and careful definitions of mathematical concepts.
- Understand both underlying principles and practical applications of one or more fields of mathematics.

| Code | Title | Credits |
| :--- | :--- | ---: |
| CH-120 | General Chemistry I | 4 |
| CS-101 | Basics of Computer Science | 3 |
| CS-120 | Microcomputer Applications | 3 |
| CS-124 | Health Informatics | 3 |
| CS-131 | Data Visualization and <br> Statistical Analysis | 3 |
| CS-135 | Programming for Non-CS <br> Majors | 3 |
| CS-155 | Computer Networking and <br> Security | 3 |
| CS-265 | Database Applications 3 <br> EC-150 Statistics |  |
| ED-322 | Contemporary Education <br> Policy | 3 |
| EV-348 | Fundamentals of Earth Data <br> Analytics | 4 |
| GS-217 | Spatial Data Methods | 3 |


| GS-348 | Fundamentals of Earth Data Analytics | 4 |
| :---: | :---: | :---: |
| MA-105 | Survey of Mathematics | 3 |
| MA-107 | Mathematical Explorations-Invitation To Effective Thinking | 3 |
| MA-130 | Number and Operations for Teachers | 3 |
| MA-131 | Patterns, Functions and Algebra for Teachers | 3 |
| MA-132 | Geometry, Measurement, Probability and Statistics for Teachers | 3 |
| MA-150 | Statistics I | 3 |
| MA-180 | Introduction to Functions | 3 |
| MA-190 | Pre-calculus | 4 |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| MA-202 | Business Calculus | 4 |
| NU-333 | Nursing Informatics (track 2) | 3 |
| PH-115 | Logic I | 3 |
| PH-215 | Logic II | 3 |
| PS-275 | Psychological Statistics | 4 |
| PS-340 | Psychological Testing and Measurement | 3 |
| TH-175 | Introduction to Stagecraft | 3 |
| UR-214 | Urban Demography | 3 |
| UR-232 | Quantitative Data Analysis of Urban Problems | 3 |

## The United States and Its Role in the World (USW) (3 credits)

Students must complete one 3-credit course.
Courses in this area:

- Study cultures, histories, and social practices in the U.S., including consideration of the ways that differences in power affect different racial, ethnic, gender, and cultural groups as evidenced by readings, texts, testimony, and narratives.
- Address issues of economic and political power that shape the U.S. and the world.
- Trace the roots and development of U.S. political and economic institutions at home and around the globe.
- Focus on particular aspects of U.S. culture and how understanding them helps to illuminate the larger context of U.S. society and its role in its world.

| Code | Title | Credits |
| :---: | :---: | :---: |
| ED-253 | History and Philosophy of Ed | 3 |
| EN-120 | Race in Comics | 3 |
| EN-169 | Ethnic Literature in the U.S. | 3 |
| EN-210 | U.S. Literature (Beginnings-1865) | 3 |
| EN-211 | U.S. Literature (1865Present) | 3 |
| EN-272 | News Reporting and Writing I | 3 |
| EN-328 | Narratives of U.S. Immigration | 3 |
| EN-345 | American Women Writers | 3 |
| EN-347 | Studies in U.S. Ethnic Literature | 3 |
| EN-370 | Antislavery Literature | 3 |
| GE-285 | Sustainable Communities | 3 |
| HI-111 | US History to 1877 | 3 |
| HI-112 | US History 1865 to the Present | 3 |
| HI-203 | The United States Since 1945 | 3 |
| HI-205 | Native America | 3 |
| HI-211 | History of US Foreign Policy I | 3 |
| HI-212 | History of US Foreign Policy II | 3 |
| HI-215 | History of American Thought | 3 |
| HI-217 | US Social History | 3 |
| HI-218 | US Constitutional History I | 3 |
| HI-219 | US Constitutional History II | 3 |
| HI-230 | Nicaragua, the US and the World | 3 |
| HI-248 | Seminar on Globalization \& Human Rights | 3 |
| HI-267 | US-Latin American Relations | 3 |
| HI-274 | The History of Gender and Sexuality in America | 3 |
| HI-285 | History of Baseball | 3 |
| HI-300 | The Early National Period of the US: 1783-1829 | 3 |
| HI-320 | Citizen Nation | 3 |
| HI-345 | Religions in America | 3 |
| HI-351 | Age of Jackson | 3 |
| HI-356 | The History of the Cold War | 3 |
| HI-391 | U.S. History for Educators | 4 |


| J0-101 | Introduction to Journalism | 3 | TH-270 | History of American | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| LA-150 | Introduction to Latinx Cultures in the US | 3 |  | Entertainment I |  |
|  |  |  | TH-271 | History of American | 3 |
| MU-330 | Jazz Ensemble | 0.5-3 |  | Entertainment II |  |
| PH-151 | Race, Gender, and the Law | 3 | UR-101 | Introduction to Urban Studies | 3 |
| PH-163 | Philosophy on Television | 3 |  |  |  |
| PH-178 | Africana Philosophy | 3 | UR-150 | Introduction to City Research | 3 |
| PH-231 | Philosophy of Law | 3 | UR-212 | American Metropolitan Evolution | 3 |
| PH-240 | Political Theory | 3 |  |  |  |
| PH-241 | Genocide and Human Rights | 3 | UR-347 | Worcester.A City \& Its People | 3 |
| PH-242 | Race, Nation, Class, Gender and Sexuality | 3 |  | Refugees in American Society | 3 |
| PH-251 | Mass Violence Against Women | 3 | UR-380 | Public Policy and Cultural Diversity | 3 |
| PH-254 | Feminist Theory | 3 | Thought, Language, and |  |  |
| PH-360 | Philosophy of History | 3 |  |  |  |  |  |
| PO-110 | American Government | 3 | Culture (TLC) |  |  |
| PO-160 | Introduction to Civic Engagement | 3 | (3 credits) |  |  |
| PO-201 | International Relations Theory | 3 | Students must complete one 3-credit course. |  |  |
| PO-202 | Globalization | 3 | Courses in this area: |  |  |
| PO-211 | History of US Foreign Policy I | 3 | Explore human thought, history, culture, art, literature, and language (including world languages). |  |  |
| PO-212 | History of US Foreign Policy II | 3 |  |  |  |  |  |
| PO-213 | The Modern Presidency | 3 | - Present the subject in the context of competing |  |  |
| PO-215 | State and Local Government | 3 | theoretical frameworks, for example, about |  |  |
| PO-218 | US Constitutional History I | 3 | race, gender, historiography, textual analysis, or cultural interpretation. |  |  |
| PO-219 | US Constitutional History II | 3 |  |  |  |  |  |
| PO-264 | American Political Thought | 3 | Synthesize approaches from different disciplines. |  |  |
| PO-265 | Racial and Ethnic Politics | 3 |  |  |  |  |  |
| PO-320 | Citizen Nation | 3 | Explore problems of ethics, politics, aesthetics, epistemology, and metaphysics. |  |  |
| PO-380 | American Foreign Policy | 3 |  |  |  |  |  |
|  | Since the Cold War |  | - Use original works as the primary object of study. |  |  |
| S0-190 | Sport and Society | 3 | - Require discursive written work, including standard references and citations, for evaluation or extensive written work in a second language. |  |  |
| S0-200 | Contemporary Social Problems | 3 |  |  |  |  |  |
| S0-228 | Latinx Experiences in the U.s. and the World | 3 | Code | Title |  |
| S0-307 | Puerto Rican Diaspora | 3 | AB-101 | Beginning Arabic I | 3 |
| S0-320 | Sociology of Race and Ethnicity | 3 | AB-102 | Beginning Arabic II | 3 |
|  |  |  | AB-210 | Intermediate Arabic I | 3 |
| S0-332 | Contemporary Immigrant Experiences | 3 | AB-211 | Intermediate Arabic II | 3 |
|  |  |  |  | Cross Media Studio | 3 |
| SO-350 | Wealth, Poverty, and Power | 3 | AR-240 | Watercolor | 3 |
| SP-323 | Advanced Spanish | 3 | AR-270 | Driftwood to Dumpsters | 3 |
| SP-333 | Hispanic Presence in US |  | AR-285 | History of Photography | 3 |
|  | Hispanic Presence in US | 3 | BI-119 | Biology of Sex | 3 |


| BI-120 | Darwinian Revolution | 3 | EN-210 | U.S. Literature | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| CD-103 | Language Science | 3 |  | (Beginnings-1865) |  |
| CD-110 | Anatomy and Physiology of Speech And Hearing | 3 | EN-211 | U.S. Literature (1865Present) | 3 |
| CD-203 | Language Science | 3 | EN-220 | English Literature | 3 |
| CJ-215 | Art Crimes | 3 |  | (beginnings to 1798) |  |
| CM-100 | Intro to Mass Communication | 3 | EN-221 | English Literature (1798- <br> Present) | 3 |
| CM-103 | Survey of Radio and | 3 | EN-255 | Methods of Literary Study | 3 |
|  | Television |  | EN-257 | The Power of Memoir | 3 |
| CM-106 | Communications and the | 3 | EN-260 | Creative Writing: Poetry I | 3 |
|  | Internet |  | EN-266 | Journalism: Practice and | 3 |
| CM-110 | Public Speaking | 3 |  | Techniques |  |
| CM-213 | Gender and the Media | 3 | EN-270 | Journalism: Editing | 3 |
| CM-241 | Understanding Movies | 3 | EN-300 | History of the English | 3 |
| CM-242 | Understanding Video Games | 3 |  | Language |  |
| CM-285 | History of Photography | 3 | EN-303 | Arthurian Literature | 3 |
| CM-315 | Social Media | 3 | EN-304 | Witchcraft in Medieval and Renaissance Literature | 3 |
| CM-384 | Media Criticism | 3 |  |  |  |
| CM-390 | Independent Media and | 3 | EN-306 | The Renaissance |  |
|  | Society |  | EN-320 | Victorian Literature | 3 |
| ED-120 | The Educational Experience Through Memoirs | 3 | EN-321 | Romantic and Victorian Gothic | 3 |
| ED-304 | Best Practices for English <br> Language Learners | 3 | EN-328 | Narratives of U.S. Immigration | 3 |
| ED-339 | Children's Literature: | 3 | EN-342 | The American Novel I | 3 |
|  | Multicultural Literature for |  | EN-344 | American Novel II | 3 |
|  | PK-9 |  | EN-358 | Disability Stories, Disability | 3 |
| EN-115 | LGBTQ+ Narratives | 3 |  | Studies |  |
| EN-120 | Race in Comics | 3 | EN-370 | Antislavery Literature | 3 |
| EN-132 | World Literature | 3 | ET-100 | Introduction to Ethnic | 3 |
| EN-140 | Introduction to Poetry | 3 |  | Studies |  |
| EN-150 | The Short Story | 3 | FR-101 | Beginning French I | 3 |
| EN-156 | Mythology | 3 | FR-102 | Beginning French II | 3 |
| EN-158 | Science Fiction | 3 | FR-210 | Intermediate French I | 3 |
| EN-160 | Literature of the Bible | 3 | FR-211 | Intermediate French II | 3 |
| EN-164 | Fantasy, Faerie and Folk Fairy and Folk Tales From | 3 | FR-321 | Advanced French Composition I | 3 |
|  | Around the World |  | FR-323 | Advanced French | 3 |
| EN-165 | Oral Literature: the Art of | 3 |  | Conversation |  |
|  | Storytelling |  | FR-331 | General French Civilization | 3 |
| EN-168 | Film and Literature | 3 | FR-341 | Introduction to French | 3 |
| EN-169 | Ethnic Literature in the U.S. | 3 |  | Literature |  |
| EN-170 | Search for Identity | 3 | FR-342 | Survey of French Literature I | 3 |
| EN-172 | Women and Literature | 3 | FR-344 | Survey of French Literature II | 3 |
| EN-173 | Baseball: America's Literary Pastime | 3 | FR-346 | Twentieth Century French Literature | 3 |
| EN-174 | Women Poets | 3 | HE-242 | Writing and Learning From Experience II | 3 |


| HI-103 | Connecting Ancient Worlds: <br> World History to 1500 | 3 | LA-150 | Introduction to Latinx Cultures in the US | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| HI-104 | Age of Empires: World History 1500 to the Present | 3 | MU-125 | Jazz Appreciation | 3 |
|  |  |  | MU-231 | Women in Music | 3 |
| HI-105 | Modern World History | 3 | MU-250 | Music of the Cinema:Spectacle, Splendor, And Spielberg | 3 |
| HI-204 | History of Science and Technology | 3 |  |  |  |
| HI-205 | Native America | 3 | NH-150 | The Short Story for Narratives of Health And Medicine | 3 |
| HI-214 | Modern Latin America | 3 |  |  |  |
| HI-215 | History of American Thought | 3 |  |  |  |
| H-217 | US Social History | 3 | NH-257 | The Power of Memoir for Narratives of Health and Medicine | 3 |
| HI-224 | English History I | 3 |  |  |  |
| HI-225 | English History II | 3 | NH-260 | Creative Writing: Poetry I for Narratives of Health and Medicine | 3 |
| HI-227 | American Popular Art and Architectural History | 3 |  |  |  |
| HI-230 | Nicaragua, the US and the World | 3 | PH-100 | Introduction to Philosophy | 3 |
|  |  |  | PH-101 | Ancient Greek Philosophy | 3 |
| HI-251 | Roots of China's Rise: Reform, Revolution and Reinvention | 3 | PH-102 | History of Modern Western Philosophy 1600-1800 | 3 |
| HI-255 | Faculty-Led Study Abroad: China Cultural Immersion | 3 | PH-110 | Critical Thinking | 3 |
|  |  |  | PH-130 | Ethics: Human Conduct \& Values | 3 |
| HI-261 | Middle East History I | 3 | PH-131 | Medical Ethics | 3 |
| HI-262 | Middle East History li: the Ottoman Empire, 1289-1920 | 3 | PH-132 | Business Ethics | 3 |
| HI-274 | The History of Gender and Sexuality in America | 3 | PH-133 | Social and Political Ethics | 3 |
|  |  |  | PH-151 | Race, Gender, and the Law | 3 |
| HI-278 | African History Before 1800 | 3 | PH-163 | Philosophy on Television | 3 |
| HI-279 | African History Since 1800 | 3 | PH-170 | Introduction to Asian | 3 |
| HI-280 | Introduction to African | 3 |  | Philosophy |  |
|  | Diaspora History |  | PH-172 | Chinese Philosophy | 3 |
| HI-285 | History of Baseball | 3 | PH-177 | Introduction to Latin | 3 |
| HI-290 | Health and Healing in America | 3 |  | American Philosophy |  |
|  |  |  | PH-178 | Africana Philosophy | 3 |
| HI-300 | The Early National Period of the US: 1783-1829 | 3 | $\begin{aligned} & \text { PH-200 } \\ & \text { PH-201 } \end{aligned}$ | Knowledge and Reality | 3 |
|  |  |  |  | 19th Century European | 3 |
| HI-314 | 20th Century Middle East History | 3 | PH-220 | Philosophy |  |
|  |  |  |  | Philosophy of Mind | 3 |
| HI-318 | Ethnic Identities in China | 3 | PH-221 | Existentialism and Phenomenology | 3 |
| HI-335 | Imperial Crossroads of Modern East Asia | 3 |  |  |  |
|  |  |  | PH-223 | American Philosophy | 3 |
| HI-337 | Travels in Asia | 3 | PH-225 | Philosophy of Language | 3 |
| HI-345 | Religions in America | 3 | PH-237 | Philosophy of Space and Time | 3 |
| H1-351 | Age of Jackson | 3 |  |  |  |
| HI-373 | African Immigration in the 20th Century | 3 | PH-240 | Political Theory | 3 |
|  |  |  | PH-250 | Global Feminisms | 3 |
| HI-375 | Popular Music and Performance in Modern Africa | 3 | PH-260 | Philosophy of Science | 3 |
|  |  |  | PH-262 | Philosophy of Art | 3 |
|  |  |  | PH-263 | Film and Philosophy | 3 |


| PH-264 | Philosophy of Education | 3 |
| :---: | :---: | :---: |
| PO-130 | Introduction to Political Theory | 3 |
| PO-223 | Political Communication | 3 |
| PO-264 | American Political Thought | 3 |
| P0-361 | The Rise of the Right: Conservative Politics From Goldwater to Today | 3 |
| PS-365 | Cultural Psychology | 3 |
| SO-201 | Prejudice, Privilege, and Power | 3 |
| S0-228 | Latinx Experiences in the U.s. and the World | 3 |
| S0-235 | Music and Social Change | 3 |
| SO-270 | Social Theory I | 3 |
| S0-340 | Social Psychology | 3 |
| SO-350 | Wealth, Poverty, and Power | 3 |
| SP-101 | Beginning Spanish I | 3 |
| SP-102 | Beginning Spanish II | 3 |
| SP-191 | Special Topics in Spanish | 3 |
| SP-210 | Intermediate Spanish I | 3 |
| SP-211 | Intermediate Spanish II | 3 |
| SP-290 | Introduction to Medical Spanish I | 3 |
| SP-291 | Introduction to Medical Spanish II | 3 |
| SP-293 | Health and the Latino Community | 3 |
| SP-295 | The Human Body: Spanish for Anatomy | 3 |
| SP-321 | Advanced Spanish Composition I | 3 |
| SP-322 | Advanced Spanish Composition II | 3 |
| SP-323 | Advanced Spanish Conversation Through Film | 3 |
| SP-326 | Spanish for the Professions | 3 |
| SP-350 | Advanced Spanish Grammar | 3 |
| SP-390 | Spanish for Native Speakers | 3 |
| TH-126 | Script Analysis | 3 |
| TH-235 | History of Theatre | 3 |
| UR-315 | Oral History for Urban Areas | 3 |
| VP-200 | Critical Thinking in the Arts | 3 |

## Writing (WR1 \& WR2) (6 credits)

Students must complete one three-credit course devoted to addressing the rhetorical abilities necessary for effective college writing and an additional three-credit course emphasizing formal academic genres, academic research skills, and the presentation of information to academic audiences. The core writing courses may not be taken pass/fail.

## Writing I (WR1)

Writing I focuses on writing as a form of critical inquiry, reflection, and communication. This course is designed to help students develop transferable skills and strategies that may be applied to a variety of audiences and in a range of situations. Students explore the principles of information literacies while practicing the fundamentals of effective writing, with an emphasis on planning, drafting, revising, and editing. Upon completion of Writing I, students should be able to:

- Write using language appropriate for the task and situation
- Think analytically about writing and articulate how their writing will be situated within the contexts of purpose, audience, and setting
- Demonstrate basic concepts associated with information literacy
- Read critically for content, rhetorical strategies, and audience
- Apply different rhetorical strategies to specific writing situations and articulate why they chose them
- Recognize the conventions of personal, professional, academic, and other forms of writing
- Consider the relationship of their writing with the writing of others
- Engage the writing of others within their own work, using appropriate documentation as necessary
- Respond to the social implications of language use and maintain ethical standards in their writing


## Writing II (WR2)

This course builds upon Writing I and focuses on research writing, synthesizing sources, critical analysis, argumentation, and information literacies. Students practice the fundamentals of effective writing in collaborative and academic communities, while evaluating and using sources in different rhetorical situations. This course is designed to help students develop transferable skills and strategies that may be applied to a variety of audiences and in a range of situations. Upon completion of Writing II, students should be able to:

- Produce extended writing according to the conventions associated with academic, public, and other writing situations.
- Demonstrate greater mastery of research skills and the ability to engage the work of others in their own writing
- Develop research, analytical, and writing skills transferrable to other academic, professional, and public situations
- Recognize how writing shapes conventions and expectations of academic, professional, and public situations
- Employ advanced concepts associated with information literacy
- Understand how the medium of writing impacts its composition, publication, and reception
- Respond to the social implications of language use and maintain ethical standards in their writing

| Code | Title | Credits |
| :--- | :--- | ---: |
| EN-101 | College Writing I | 3 |
| BI-109 | Writing in the Natural | 3 |
|  | Sciences |  |
| EN-102 | College Writing II | 3 |
| EN-202 | Honors Composition | 3 |

EN-202 is taken by students in the Honors Program in place of EN-102.

## MajorPlus

All full-time, first-time students must declare a major with a minor or a double major of their own choosing and complete both for graduation:

- All first-time, full-time students will declare a major with a minor or a double major by the completion of their first 45 credits.
- All transfer students with 45 or fewer credits will be required to meet the major/minor/double major graduation requirement; transfer students with 46 credits or more would be encouraged, but not required, to fulfill the proposed major/minor/ double major graduation requirements.
- All students enrolled in combined undergraduate or " $3+$ " programs will satisfy the major/minor/ double major graduation requirement upon successful completion of their programs.
- All students enrolled with a bachelor's degree in hand will satisfy the major/minor/double major graduation requirement.


## Matriculation

Matriculation is the process whereby students are admitted to Worcester State University and pursue a formal course of study leading to a bachelor's degree, second major, certificate, professional certification, or master's degree.

## Multicultural Affairs

Multicultural Affairs' mission is to provide opportunities, access, and retention to program participants by supporting their successful transition to higher education. We take a comprehensive approach to increasing students' effectiveness by creating a welcoming environment that caters to first generation, low-income, and/or ALANA/BIPOC (African, Latinx, Asian, Native American and/or Black, Indigenous, People of Color) students.

The office hosts the following programs:
The Alternatives for Individual Development
(A.I.D.), Worcester State University
A.I.D. Summer Bridge Program, the Upward Bound Program, Worcester's 100 Males to College/Early College Program Collaborative, Intercultural Student Alliance formerly known as Third World Alliance (TWA), First Generation Student Nation, and Worcester State University Multicultural Programming.

## Alternatives for Individual Development (A.I.D.)

The Alternatives for Individual Development program is an alternative admissions program at Worcester State University which provides educational assistance to students. Participation in the program for some students may begin with WSU A.I.D. Summer Bridge Program held in June and July.

The primary focus is the first two years (first and second year). The program requires a minimum participation of four academic semesters designed by the program staff and based on individual assessment. Other services are provided to students throughout their undergraduate experience including academic assistance, individualized or group skills development, assistance with financial adjustment, and cultural enrichment. To be eligible for the Summer A.I.D. Bridge Program, students must be incoming first-year students and meet minimal admissions requirements.

## Upward Bound (UB)

The Upward Bound program is designed to encourage eligible high school students to persist in school through graduation and to seek a postsecondary education. The program actively recruits students who show motivation and desire to succeed and who are college bound. Services include college visits, workshops and seminars in college admissions and financial aid assistance, career counseling, individualized or group tutoring, and cultural enrichment activities. The program has two main components: the academic year Saturday component and the summer residential academy.

## Worcester 100 Males to College (100MTC)/Early College (ECW) Programs Collaborative

The 100 Males to College/Early College programs are a secondary/post-secondary partnership involving Worcester Public Schools (WPS), Quinsigamond Community College (QCC), and Worcester State University (WSU). The programs enable high school students to participate in college and career readiness activities and college credit course offerings. The activities and courses are
offered at the high school or on the QCC or WSU campuses. Students can earn college and high school credits at the same time.

## Multicultural Programming

Multicultural Programming's primary mission is to coordinate and implement comprehensive educational, cultural, and social programs that celebrate diverse cultural contributions. These programmatic efforts are designed to promote dialogue while creating opportunities for students to develop and expand their cultural competencies. The ultimate goal is to expose and educate all students to understand and appreciate racial and ethnic differences. Annual signature programming includes Latin Heritage, Native American/Indigenous Heritage, Black History, Women's History and Asian American Month celebrations. Other programs include WSU Dr. Martin Luther King Jr. Youth Breakfast, Courageous Conversations, and African American Read In Day.

## Intercultural Student Alliance (formerly know as Third World Alliance)

Intercultural Student Alliance (formerly known as Third World Alliance) is a student organization dedicated to promoting inclusion and multicultural diversity and enhancing pluralism on campus and within the Worcester community. The organization features activities aimed at informing, educating, enriching, and encouraging conversation around topics related to ethnically and racially diverse issues.

## First Generation Student Nation

The First Generation Nation is a student group dedicated to empowering first generation students to develop a sense of belonging and community through social, academic, cultural, career, and financial programming that is easily accessible. First Generation Nation coordinates support groups and experiences to assist students to navigate their college experiences and create a space where students can connect with peers, mentors, and resources on critical topics affecting first generation students' experience at Worcester State University.

## Prior Learning Portfolio Program

## Prior Learning Portfolio Eligibility \& Guidelines

The WSU Prior Learning Portfolio Program provides the opportunity for matriculated undergraduate adult students to complete a portfolio demonstrating knowledge that can be mapped to specific courses at Worcester State University. The portfolio is evaluated by university faculty members to determine the awarding of credit.

Adult Students

- Only undergraduate matriculated students in good standing at Worcester State University with the designation of "Adult Learner" can access the Prior Learning Portfolio option.


## Definition of Adult Learner

- Any matriculated student at Worcester State University who is 24 years old or older.
- Any student who is 24 years old or older at the point of admission to Worcester State University.
- Any student, regardless of age, who is admitted to Worcester State University with less than 12 college credits and who has been out of high school for 3+ years.


## Courses

- Students may request a Prior Learning Portfolio in any area of undergraduate work at Worcester State with some exceptions. Academic departments have the ability to indicate courses in their departments that are not eligible for the Prior Learning Portfolio Program.
- Major capstone courses can not be requested through the Prior Learning Portfolio Program.
- Students may request a Prior Learning Portfolio to fulfill:
- free electives and major electives
- major, and minor requirements
- LASC requirements.
- Students may not request a Prior Learning Portfolio for a course if they have previously taken the course and failed it or if a CLEP option is available and accepted at the institution.


## Pre-requisites

- Students must have fulfilled the Writing I (WR1) and Writing (WR2) sections of LASC before starting the Prior Learning Portfolio option.


## Credits

- Students may request up to 18 credits through Prior Learning Portfolio.
- Awarded credits are considered institutional credits and are recorded in transcripts as " P ".
- Awarded credits are not calculated in GPA or towards pass/fail total credits.


## Deadlines and process

- If course credit has been denied, students may revise and re-submit their portfolio for a second review. Students have 15 business days from the day they were provided with the denial letter to re-submit their portfolios. No additional reviews are allowed.
- Portfolios are reviewed once in the fall semester (deadline is last day of September) and spring semester (deadline is the last day of February). If deadlines fall on a weekend or the university is closed, the deadline will be postponed to the first workday following the last day of September or February.
- Students have to pay the per credit Prior Learning Portfolio Fee before they can submit their portfolio for review.
- The professional letters of reference must be dated and signed and submitted directly to the Portfolio Coordinator from the source.
- Students might be required to produce originals of any copies of supporting documentation submitted for visual verification.


## Faculty Evaluators

- At the start of each academic year, no later than the second Monday after the first day of classes, the Portfolio Program Coordinator will contact Department Chairs for a list of full-time faculty interested in serving as portfolio Faculty Evaluators.
- The Portfolio Program Coordinator will compile and maintain a list of active portfolio Faculty Evaluators and will provide training to all new Faculty Evaluators.
- Faculty Evaluators will have 15 business days to provide credit recommendations.
- Faculty Evaluators will be compensated for their evaluation of the portfolio.


## Minimum Prior Learning Portfolio Contents

- Cover page
- Table of contents
- Certificate of attendance to the Portfolio Workshop
- Certificate of payment of portfolio fees (nonrefundable)
- Copy of degree audit and Portfolio Request to Pursue
- Abstract
- Resume
- Syllabus for courses requested (obtained from a faculty member or area department at Worcester State University). If the course is part of LASC, the syllabus should include learning outcomes in alignment with the content area learning objectives
- Narrative and Skills inventory (resources from the annotated bibliography should be integrated into this section)
- Supporting documentation/Evidence of Prior Learning: performance evaluations, reports, certificates of attendance to workshops/ trainings, etc.
- Two professional letters of reference sent to the program directly from the recommenders
- Annotated bibliography: 10 sources per course requested. The resources should be integrated into the narrative and skills section.


## Prior Learning Portfolio Process

- Undergraduate students interested in pursuing the Prior Learning Portfolio option complete an online self-paced Portfolio Workshop to understand the portfolio policies and the portfolio creation process.
- Students identify the courses they wish to request through their portfolio and complete the Portfolio Request to Pursue. Students meet with their major academic advisor to ensure that
courses fit their degree completion plan, and the portfolio coordinator to receive approval (through signatures).
- Students produce all the necessary documentation and narratives for portfolio submission.
- Students pay portfolio review fees (a portfolio assessment charge is added to the students' accounts before payment for the bursar's office to process the charge).
- Students submit a portfolio.
- The Portfolio Coordinator sends the portfolio to the faculty evaluator(s)for review.
- Faculty Evaluators will return the Rating Rubric and Decision Letter to the Portfolio Coordinator within 15 days business days.
- Students are notified of the results and provided with the reviewers' feedback.
- If course credit has been denied, students may revise and re-submit their portfolios for a second review. Students will have 15 business days from the day they were provided with the denial letter to re-submit their portfolios. No additional reviews will be allowed.
- The Portfolio Coordinator sends the award letter to the Associate Vice President for Continuing Education for final approval.
- The Associate Vice President for Continuing Education submits an award letter to the Registrar's Office for credit posting.


## Program

A program is an approved academic course of study whether it be a major, minor, or concentration.

## Major/Minor

Major: Upon or after admission to Worcester State University, and in any case prior to the beginning of the junior year, degree seeking students declare an intent to major in a specific discipline or an approved interdisciplinary area. In general, a major is completed by earning between 30 and 48 credits with a minimum GPA of 2.0. Students may take additional electives in their major if desired. Courses are selected under the direction, and with the approval of the student's faculty advisor in the major.

Declaration: A department and/or an appropriate interdisciplinary committee administering an interdisciplinary major may establish standards for admission of enrolled students into their major and minor programs. The standards are not based solely on any GPA. They may be based on grades earned in prerequisite courses, demonstration of special knowledge and skills through tests, portfolios, interviews, and other relevant criteria. Departments and interdisciplinary major administering committees must have standards approved by the All University Committee. A minimum GPA at variance with Worcester State University's policy may not be used as a standard for retention as a major or minor student within a department and an interdisciplinary program. Transfer credits must be approved by the major department or the corresponding program administering committee.

Minor. As a choice for students completing Major + for graduation, or any matriculated student interested in doing so, an approved minor may be completed by earning between 18 and 25 credits and at least one 300 or 400 level course in a discipline other than the student's major discipline and/or in an interdisciplinary program. With limited exceptions, (outlined in the specific minor program information), students should not major and minor in the same discipline. Within these limited exceptions, no more than one course ( $3-4$ credits), may be reused between a major and a minor.

Changing Major or Minor. A student wishing to change a major or minor field of study completes the Declaration/Change of Major/Minor Form at the Office of the Registrar. A request for a change in major or minor must be made in the Fall by midOctober and in the Spring by mid-March. Forms for the declaration or change of a major/minor are available at the Office of the Registrar. A student wishing to declare/change into Occupational Studies, Liberal Studies, or the Global Studies minor must obtain approval from the Chair of the department. Change of major is not permitted in the Nursing program.

## Registration and Course Credit Information

Pre-registration for returning students is scheduled in the Fall and Spring of each academic year for advance course selection. The order of registration
proceeds from seniors to first-year students. Class determination is made at the completion of the Fall semester and at the end of summer sessions. A student's registration is not considered official until all financial obligations are met.

Course Numbering: The 100-level offerings are introductory or survey courses that generally do not require prerequisites. The 200 -level courses are intermediate and may require prerequisite courses. The 300-level courses are advanced and require prerequisite courses. The 400 -level courses are generally for seniors and include seminars, independent study, and internships. Courses at the 900 level are open only to post-baccalaureate students.

Prerequisites represent an essential body of knowledge and skills necessary for students to succeed at an acceptable level in a course and/or are required to satisfy licensing and certification standards. Specific prerequisites are required for many courses and in certain professional studies leading to licensing and certification. Prerequisites may be waived by the instructor or department chair of the department offering the course.

Corequisites are courses which support the successful completion of certain other courses when taken concurrently. When a corequisite is listed for a course, the students are advised to register for both at the same time. In some cases, prerequisite/ corequisite courses may fulfill LASC requirements.

Course Credit is counted in units called semester hours. The number of semester hours carried by a particular course is indicated in the course description. Twelve to 19 semester hours of credit per semester are considered a full-time schedule of study.

Worcester State University follows a modified Carnegie Foundation definition of the credit-hour, known as the "Carnegie Unit." For Worcester State courses, one credit hour is equivalent to one hour of classroom instruction, coupled with a minimum of two hours of expected coursework outside of the classroom by the student, over a semester of approximately 15 weeks. Please note that "one hour of classroom instruction" is actually 50 minutes. A three-credit course would thus entail approximately 45 classroom hours of instruction (= approximately 37.5 actual hours in class per semester) and a
minimum of approximately 90 hours of work outside of class. Courses offered in abbreviated terms, such as summer and winter sessions, are the academic equivalent of courses offered in a full semester format. Students receive one credit for each credit hour of courses taken.

## Full-time, Half-time, and Part-time

Status: Undergraduate students enrolled in 12 or more credits per semester are classified as fulltime students. Undergraduate students enrolled in 6-11 credits per semester are classified as half-time students. Undergraduate students enrolled in fewer than 6 credits per semester are considered parttime students, who are not hall-time or full-time. To complete an undergraduate program in four years, students must earn an average of 15 or more credits each semester.

Course Overload: Special permission is required for students to register for more than 19 semester hours of credit. Forms are available at the Office of the Registrar or the Registrar webpage and advisor/ department and Dean's approval are required.

Course Repeat: In general, after consultation with their advisor, students who wish to repeat a course must file a course repeat form with the Registrar. Course repeats must be taken at Worcester State University. Only the highest grade is computed in the cumulative GPA, although all previous and new grades will appear on the transcript. Students will not receive credit for a course more than one time except for courses specifically identified by individual departments as repeatable for credit. For financial aid purposes, there is a limit to the number of times that students can repeat coursework. A student receiving financial aid may repeat a previously passed course one time in an attempt to receive a better grade. For any questions about this, please contact the Financial Aid Office. Some academic departments may have department- or major-specific course repeat policies for courses or programs in their department. Please see academic department catalog pages for more information.

Adding or Dropping a Course: Students may add/ drop courses in accordance with the deadline published in the academic calendar. It is the student's responsibility to return the completed form(s) to
the Registrar's Office. After the deadline, students wishing to drop a course must follow the procedure for withdrawal.

Withdrawal From Courses (W): A student may withdraw from a course at any point up to one week after failure warnings have been issued. Choosing to withdraw is a serious matter which may affect a student's class standing, full-time status, financial aid, etc. A student considering such a step should seek advice from the instructor or the faculty advisor. To withdraw from a course, a student must obtain a Course Withdrawal Form from the Registrar's Office or the Registrar webpage and follow the prescribed steps. Mere non-attendance at class does not constitute official withdrawal and may result in a failing grade.

In cases of academic dishonesty, the W grade may be reversed.

All "W" grades are permanently recorded on the student's transcript. A student who withdraws from all courses will be considered withdrawn from Worcester State University, and must file a formal intent to withdraw with the Academic Success Center.

Students who receive any form of financial aid or veterans educational benefits should consult with the respective office PRIOR to dropping or withdrawing from a course. Reducing credit hour load may adversely affect eligibility to receive financial aid or veterans educational benefits. In addition, most private insurance companies require that students be full-time ( 12 credits or more) to be eligible for coverage.

Quality of achievement is represented by the following letter grades with associated points per semester hour of credit.

| Letter Grade | Grade Points |
| :--- | :--- |
| A | $4.0-$ points per semester hour credit |
| A- | 3.7 |
| B+ | 3.3 |
| B | 3.0 |
| B- | 2.7 |
| C+ | 2.3 |
| C | 2.0 |
| C- | 1.7 |
| D+ | 1.3 |


| D | 1.0 |
| :--- | :--- |
| D- | 0.7 |
| E | $0.0-$ no credit, included in <br> calculation of GPA |
| I | a temporary grade, not computed in <br> GPA |
| NR | a temporary grade, not computed in <br> GPA |
| P | pass/fail option; credit, not <br> computed in GPA |
| F | pass/fail option; no credit, not <br> computed in the GPA |
| W | withdrawn; no credit, not computed <br> in the GPA |
| AU | Audit |
|  |  |

Grade Point Average (GPA): At the end of each semester (and/or summer session), a semester GPA is calculated by dividing the total number of credits attempted (excluding grades of I, P, F, W) into the sum of the products of points and credits for all courses taken.

A Cumulative Grade Point Average reflecting the entire history of a student's achievement at Worcester State University is also computed. The Cumulative GPA is a major factor in determining class membership, academic standing, and eligibility for academic honors. Only grades earned at Worcester State University or through the Consortium Program are computed in the cumulative GPA.

Audit Procedure Policy: Students electing to audit may attend classes but will not earn grades or be permitted to submit assignments or take examinations. No academic credit is awarded, but the student receives the benefits of course lectures and discussions. Consent of the instructor is required to enroll in a class as an auditor.

Only students who are not matriculated undergraduates at Worcester State University are eligible to audit undergraduate courses. Also ineligible to audit courses are Consortium, CAPS, dual enrollment, and foreign exchange students.

The audit option must be declared at the time of registration. Students cannot switch to credit-bearing status or from credit-bearing to audit status after registration. Audited courses do not count toward
load for any purposes (e.g., financial aid, veterans benefits, etc.) The audit will be permanently recorded on the student's transcript.

Pass/Fail: Students may elect up to two courses per semester on a pass/fail basis. Core writing courses and courses within major(s) and minor(s) disciplines may not be taken pass/fail, even when not applied to specific degree requirements. Students must notify the Registrar's Office at least four weeks prior to the last scheduled day of classes if they intend to take a course on a pass/fail basis. Similarly, students deciding to change from pass/fail status to standard grading must notify the Registrar's Office by the same deadline, four weeks before the final day of classes. Once a student decides to change from pass/fail status to standard grading, it is not reversible; the letter grade stands. No more than fifteen (15) hours may be taken on a pass/fail basis. No more than two courses in any given semester may be taken pass/fail.

Independent Study: Independent studies offer motivated students the opportunity to study a topic not covered in the established curriculum. Independent studies can cover specialized topics or focus on unique research. A student may undertake an independent study to explore individual interests and formulate decisions about future career opportunities.

A matriculated student seeking to take an independent study should contact an instructor and work with him or her to prepare a written contract outlining the course content, student learning outcomes, grading parameters, and suitable credit hours. In general, independent studies will be supervised by a full-time faculty member. Exceptions require permission from the department chair and the appropriate dean. The student is responsible for obtaining all necessary signatures (the professor, department chair, and appropriate dean) and submitting the application to the Registrar no later than the last day of add/drop. One to six hours of credit may be granted for one semester of independent study. No more than twelve hours in independent study may be granted toward the baccalaureate degree.

Directed Study: A directed study is an alternative method of learning required course material which is appropriate only when special circumstances prevent a student from taking a course in the usual
manner. Directed studies will be allowed only in rare instances and in a semester in which the course is not otherwise scheduled. Under the direction of a faculty member, the student must meet the same learning outcomes as required in a regularly scheduled course. Directed Studies should not be used for core classes. Directed study applications can be obtained from the Office of the Registrar. Only one course taken by a directed study may be applied toward fulfilling graduation requirements.

A matriculated student seeking to take directed study should contact an instructor and work with him or her to prepare a written contract detailing the course content, student learning outcomes, grading parameters, suitable credit hours, and how the goals of the course will be accomplished within the directed study format. In general, directed studies will be supervised by a full-time faculty member. Exceptions require permission from the department chair and the appropriate dean. The student is responsible for obtaining all necessary signatures (the professor, department chair, and appropriate dean) and submitting the application the Registrar no later than the last day of add/drop. One to three hours of credit may be granted for a directed study.

Incomplete Grades: When circumstances (e.g., illness) prevent a student from completing a course on time, the student is responsible for requesting an incomplete. The professor may grant an incomplete provided the student had completed a substantial portion of the course requirements. The student must make arrangements with the professor to complete the course within six weeks of the beginning of the next semester. The academic calendar indicates the deadline for resolving incomplete grades from the previous term. If the course requirements are not met within the appropriate period, the incomplete grade will automatically change to the grade the student earned, as determined by the instructor of record, at the time the incomplete grade was requested and so recorded on the student's permanent record.

An extension of an incomplete for one semester may be granted if circumstances still prevent the student from completing the course. In such cases, the student is responsible for obtaining the approval of the professor, who must notify the Registrar in writing of his/her approval prior to the end of the initial six (6) week period. With regard to the extension of an incomplete grade, the required course work must be completed by the student prior
to the beginning of the final examination period of the semester immediately following the one in which the incomplete was originally issued. The instructor will then have five working days within which to submit a final grade to the Registrar.

Change of Grade: Once a grade has been posted to a student's transcript that grade may be changed if, and only if, an error has been made in the calculation or transcription of the original grade. Under no circumstances will a change in grade for a student be allowed because of the submission of additional work after the course has ended. No grade change may be made after the conclusion of the semester following the semester in which the grade was originally submitted.

## Seal of Biliteracy

WSU credit will be granted to students who have earned the Massachusetts State Seal of Biliteracy in World Languages. The credits to be applied are as follows:
Code Title Credits

Arabic

| $\mathrm{AB}-101$ | Beginning Arabic I |
| :--- | :--- |
| $\mathrm{AB}-102$ | Beginning Arabic II |
| $\mathrm{AB}-210$ | Intermediate Arabic I |
| $\mathrm{AB}-211$ | Intermediate Arabic II |

American Sign Language
Please see the Communication Science and Disorders Department.

| French |  |
| :---: | :--- |
| FR-101 | Beginning French I |
| FR-102 | Beginning French II |
| FR-210 | Intermediate French I |
| FR-211 | Intermediate French II |
| Spanish |  |
| SP-101 | Beginning Spanish I |
| SP-102 | Beginning Spanish II |
| SP-210 | Intermediate Spanish I |
| SP-211 | Intermediate Spanish II |
| Other Languages |  |
| WL-101 | Beginning World Language |
| WL-102 | Beginning World Language II |

WL-211 Intermediate World Language II

## Standards of Progress

Matriculated students (students admitted to Worcester State University and pursuing a formal course of study leading to the bachelor's degree, second major, certificate, or professional certification) are expected to make satisfactory and steady progress toward completion of their programs.

Opportunities are available for student advisement, both within major departments and from the Academic Success Center. However, each student is solely responsible for selecting courses which satisfy departmental requirements for a major, as well as the general requirements for graduation, as described in this catalog. Students are responsible for familiarizing themselves with this information. Exemption from, or exception to, any published requirement is valid only when approved in writing by the respective Dean, Provost/Vice President for Academic Affairs, or Associate Vice President for Academic Affairs, and confirmed by the Registrar.

## Attendance

All students are expected to attend and participate in all class meetings and laboratory sessions. In the event that illness or some other emergency prevents a student from attending class, the student should contact the instructor directly. Since attendance requirements differ according to the specific academic goals of each course, students should carefully check the attendance policy on the course syllabus. If there is anticipated prolonged absence, the Associate Vice President for Academic Affairs (Administration Building, Room 361) should be contacted.

## Worcester State University abides by Chapter

 375 of the Commonwealth of Massachusetts, An Act Excusing the Absence of Students for Their Religious Beliefs. Section 2B of this law states: "Any student in an educational or vocational training institution other than a religious or denominational educational or vocational training institution, who is unable, because of his religious beliefs, to attend classes or to participate in any examination, study,or work requirement on a particular day shall be excused from any such examination, study or work requirement, and shall be provided with an opportunity to make up such examination, study, or work requirement which he may have missed because of such absence on any particular day; provided, however, that such makeup examination or work shall not create an unreasonable burden upon such school. No fees of any kind shall be charged by the institution for making available to the said student such opportunity. No adverse or prejudicial effects shall result to any student because of his availing himself of the provisions of this section."

Academic Standing: For degree-seeking students, class membership is based upon the number of credit hours completed. Class membership determines priority for registration and participation in class events.

| Class | Credit Hours Completed |
| :--- | :--- |
| First-Year | $0-29$ |
| Sophomore | $30-59$ |
| Junior | $60-89$ |
| Senior | $90-120$ |

Good Standing: To maintain good standing at Worcester State University, matriculated students must meet the minimum standards specified below.

| College Credits $^{1}$ | Cumulative GPA |
| :--- | :--- |
| $1-29$ | 1.50 |
| $30-59$ | 1.75 |
| 60 and over | 2.00 |
| ${ }^{1}$ College credits include all credits attempted at |  |
| Worcester State University plus all credits accepted |  |
| in transfer. Students are reminded that only grades |  |
| earned at Worcester State University or through the |  |
| Consortium Program are used in determining their |  |
| GPA. |  |

Warning Status: Students will not be placed on probation status until they have attempted 24 semester hours; however, students may be placed on a warning status if they fail to maintain the minimum standard after attempting 12 semester hours. Students on warning status may enroll in no more than 16 semester hours. In consultation with an academic advisor, each such student will develop an academic plan/registration contract that will
include such conditions as repeating failed courses, regularly scheduled advising appointments, attending workshops offered through the Academic Success Center, and recommended use of the writing center, math lab, and tutoring services.

Probation and Dismissal: Students who fail to meet and/or maintain the minimum cumulative GPA required for good standing are placed on academic probation and are subject to the following restrictions:

1. they may not participate in intercollegiate athletics; and
2. they may not register for more than 12 semester hours of credit per semester; and
3. they may not serve on any standing and ad hoc governance committees of Worcester State University.

Failure to improve the GPA and regain good standing after two regular academic semesters (Fall and Spring) will result in academic dismissal and separation from Worcester State University. Students dismissed from Worcester State University for academic deficiency may not register for or attend classes at Worcester State University until 12 months have elapsed. Readmitted students must attain a minimum GPA of 2.0 for each semester following their return. Failure to maintain a 2.0 semester GPA will result in a second separation from Worcester State University not subject to appeal. See next section regarding withdrawal/leave of absence.

Appeal of Dismissal: Students may appeal for reinstatement to continue for a third semester on probation. Appeals must be made in writing to the Chair of the Academic Progress Review Board and submitted to the Registrar within five (5) days of notification. The Academic Progress Review Board will review the written appeals. The decision of the Review Board is final.

## Community Standards

As a student, the Office of Community Standards at Worcester State University is your resource for information on your rights and responsibilities as a member of our campus community, understanding the balance between individual and community rights, and support of a safe and inclusive atmosphere conducive to your success. Integrity,
scholarship, community, creativity, and excellence are the core values that guide our conduct, performance, and decisions.

Information about The Office of Community Standards can be found at https://
www.worcester.edu/Community-Standards/.

## Transcripts

Official transcripts of coursework taken at Worcester State University or Becker College may be obtained by eligible students from the Office of the Registrar with the completion of the online transcript request process found at (http://www.worcester.edu/ transcriptrequest). Transcripts are \$10 per copy.

## Undergraduate Grade Appeal Procedure

Prior to invoking the use of the undergraduate grade appeal procedure, individuals should exhaust all informal means available to resolve questions concerning specific issues related to their courses.

The grade appeal procedure may not be used to challenge a grade which results from a faculty member exercising usual and customary professional judgment in the evaluation of student work.

## Step 1

When an issue arises in which the student believes he/she has been treated unfairly, the student shall request in writing a meeting with the instructor. In the case of an end-of-semester grade, the student shall request such a meeting no later than ten working days after the beginning of the next semester. The instructor shall arrange to meet with the student within ten working days of the receipt of the request.

## Step 2

If the matter is not resolved to the satisfaction of the student at Step 1, then, within ten working days of the meeting in Step 1, the student shall file a written request to review the matter with the appropriate Department Chair.

## Step 3

If, within ten working days of the receipt of the request in Step 2, the Department Chair is unable to resolve the matter to the satisfaction of all parties,
then either party may, within ten working days, file a written request to review the matter with the Dean of the respective School.

## Step 4

If, within ten working days of the receipt of the request in Step 3, the Dean is unable to resolve the matter to the satisfaction of all parties, then either party may, within ten working days, file a written request to review the matter with the Vice President for Academic Affairs. In the case of continuing education courses or graduate courses, the appeal at Step 3 goes to the Associate Vice President of Continuing Education.

## Step 5

Within ten working days of the receipt of the request in Step 4, the Provost/Vice President for Academic Affairs shall inform the student, faculty member, Department Chair, and Dean of the results of his/her review.

The appeal process ends at this point.

## Withdrawal from Worcester State University/Leave of Absence

Matriculated students who fail to take a course during a calendar year will be administratively withdrawn from Worcester State University. Students who wish to permanently withdraw from Worcester State University or take a temporary leave of absence must complete appropriate forms in the Academic Success Center. If the withdrawal or leave of absence is filed prior to the last day to withdraw from courses for the term, " $W$ " will be recorded on the student's record. Students who file for leave of absence or withdrawal after the last day to withdraw from courses for the term may petition if they feel circumstances warrant the recording of " W " for all courses enrolled for that term. Normally, a leave of absence is for one semester; however, a student may have up to one year to return to Worcester State University. Failure to return at the specified time will result in an administrative withdrawal from Worcester State University.

Students who receive any form of financial aid or veteran's educational benefits should consult with the respective office PRIOR to dropping or
withdrawing from a course. Reducing credit hour load may adversely affect eligibility to receive financial aid or veteran's educational benefits. In addition, most private insurance companies require that students be full-time ( 12 credits or more) to be eligible for coverage.

## Reinstatement after Withdrawal/ Non-continuous Attendance/ Dismissal

Students reactivate their undergraduate, matriculation status through the Registrar's Office. It is the student's responsibility to supply and update the following documents if they are not on file:

- final high school transcript
- completed and notarized proof of residency form
- official transcript of all courses completed at each post-secondary institution attended (excluding Worcester State University).

When the file is complete, the student will meet with an advisor and develop a plan for academic persistence and success. If applicable, an updated evaluation of transfer credits will be done at this time. In the case of Nursing, Occupational Studies, and Education majors, an interview with the academic department will be necessary to determine reinstatement possibility in these majors.

Students readmitted after dismissal must attain a minimum GPA of 2.0 for each semester following their return. Failure to maintain a 2.0 semester GPA will result in a second separation from Worcester State University not subject to appeal.

All reinstated students follow the major requirements from the catalog in effect at the time of their reactivation. For students who matriculated prior to Fall of 2009 as first-year students, or prior to 2012 as transfer students, courses will be allocated to LASC categories according to the LASC transfer policies (see LASC section under "Academic Policies and Procedures"). For students who last matriculated as first-year students after the Fall of 2009, or as a transfer after the Fall of 2012, all courses completed at WSU will be allocated to LASC categories according to the catalog in effect when he/she is reinstated. Through appropriate advising,
a plan for success outlining the maximum credits applicable will be developed prior to the semester of re-matriculation.

## Enhanced Learning <br> Opportunities

- Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Science (p. 76)
- American Antiquarian Society Seminar (p. 77)
- College Academic Program Sharing (CAPS) (p. 77)
- Department Challenge (p. 77)
- Higher Education Consortium of Central Massachusetts (HECCMA) (p. 78)
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- New England Regional Student Program (p. 79)
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- Pre-Law Program (p. 79)
- Pre-Medical, Pre-Dental, Pre-Veterinary and PrePharmacy Advisory Program (p. 79)
- Reserve Officer Training Corps (ROTC) (p. 80)
- Summer Programs (p. 81)
- The Washington Center for Internships and Academic Seminars (p. 81)


## Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Science

Worcester State University (WSU) and Massachusetts College of Pharmacy and Health Science (MCPHS) have a formal affiliation agreement that admits students into an articulated program that begins with three years at WSU in one of three science tracks (Biology, Biotechnology, or Chemistry) and concludes with the three-year accelerated Doctor of Pharmacy program at MCPHS's Worcester or Manchester (NH) campus. After successfully completing the first-year of required coursework in the PharmD program at MCPHS, students will earn a Bachelor of Science degree from WSU. The first three years at WSU offer a blend of liberal arts and sciences that meet both the MCPHS general
education curriculum requirements and the specific science track requirements at WSU. MCPHS provides the coursework needed for the student to earn the Bachelor of Science degree from WSU at the end of the first-year of professional study and the professional education required to earn the Doctor of Pharmacy degree at the end of three years at MCPHS.

MCPHS shall accept up to ten (10) qualified WSU students each year into the first year of the Pharmacy Program. If more than 10 students meet the established requirements and wish to transfer under the terms of this Agreement, the 10 students determined by the MCPHS Worcester/Manchester Pharmacy Admissions Committees to be the best qualified will be assured transfer admission, with the remaining students accepted on a space available basis.

Students who qualify (at the end of three years at WSU) for the Accelerated Pharmacy Program with MCPHS must:

- Have been full-time students at WSU for the three pre-pharmacy years and have followed one of the approved curricula
- Have complete all pharmacy prerequisite courses at WSU with at least C grades (not C-)
- Obtain an IBT-TOEFL score of at least 79 or an IELTS score of at least 6.5 if English is a second language
- Meet current MCPHS admission and prerequisite requirements published on the MCPHS website

Students who transfer to WSU from another college are not eligible for this program but can apply to MCPHS via the traditional application process.

Students applying to the MCPHS Accelerated Pharmacy Program must:

- Declare by November 1 of their third year at WSU their intent to transfer to MCPHS as a first-year Pharmacy Program student the subsequent Fall term by completing an online form available on the WSU pre-health website.
- Complete an application to MCPHS via the PharmCAS System by November 1.
- Complete a successful pre-admission interview, conducted by MCPHS at the campus to which the student intends to transfer.


## American Antiquarian Society Seminar

Each fall the American Antiquarian Society and five Worcester Colleges-Assumption College, Clark University, College of the Holy Cross, Worcester Polytechnic Institute and Worcester State-sponsor a research seminar at the Society library. The seminar is conducted by a scholar familiar with the Society's extensive early American History collection, and the seminar topic is related to his or her field of research. Normally, two students are chosen from each of the five colleges to participate. The seminar topic and research methods combine several disciplines, and students from a wide variety of majors have participated in this unusual undergraduate opportunity. The seminar is approved as a LASC capstone and as a capstone in the History Major (as HI 465). Further information is available from the Department of History and Political Science.

## American Antiquarian Society

185 Salisbury Street

Worcester, MA 01609

## College Academic Program Sharing (CAPS)

A student enrolled at any of the nine Massachusetts State Universities may enroll for up to 30 credits at any other state university without going through formal registration procedures. Credits are automatically transferred to the student's home institution, and the student pays no additional tuition or fees. To take part in the program, degree-seeking students must have attained sophomore status and be in good academic standing at Worcester State. For further information consult the Registrar.

## Bridgewater State University

131 Summer Street

Bridgewater, MA 02325
Fitchburg State University

Framingham State University
100 State Street
Framingham, MA 01701
Massachusetts College of Art and Design
621 Huntington Avenue
Boston, MA 02115

Massachusetts College of Liberal Arts
375 Church Street

North Adams, MA 01247
Massachusetts Maritime Academy
101 Academic Drive

Buzzards Bay, MA 02532
Salem State University
352 Lafayette Street
Salem, MA 01970
Westfield State University
577 Western Avenue
Westfield, MA 01086
Worcester State University
486 Chandler Street

Worcester, MA 01602

## Department Challenge

When appropriate, and with the sanction of the faculty advisor, students may request and complete a department-developed examination to translate competencies into credit. A limited number of departments offer this as an option, so consult the appropriate department chair. However, in most cases it is recommended that students explore the CLEP option.

## Higher Education Consortium of Central Massachusetts (HECCMA)

Eleven Central Massachusetts colleges comprise the Higher Education Consortium of Central Massachusetts (HECCMA). In addition to cultural activities, interdisciplinary programs, and other opportunities, the Consortium provides a crossregistration service whereby full-time, matriculated, day students of member colleges may register at no additional cost for one course per semester at another campus during the Fall and Spring semesters. Students must be in good academic standing to take advantage of the one course per semester cross-registration option. Student eligibility and course applicability is determined by the Registrar's Office. Further information is posted on the Consortium website - http:// www.heccma.org. Locations of HECCMA institutions are:

Anna Maria College
50 Sunset Lane
Paxton, MA 01612
Assumption University
500 Salisbury Street
Worcester, MA 01609
Clark University
950 Main Street
Worcester, MA 01610
College of the Holy Cross
1 College Street
Worcester, MA 01610
Cummings School of Veterinary Medicine, Tufts
University
200 Westboro Road
North Grafton, MA 01536

MCPHS University
19 Foster Street
Worcester, MA 01608
Nichols College
121 Center Road
Dudley, MA 01571

Worcester, MA 01606
UMASS Chan Medical School
55 Lake Avenue North
Worcester, MA 01655
Worcester Polytechnic Institute
100 Institute Road
Worcester, MA 01609
Worcester State University
486 Chandler Street
Worcester, MA 01602

## Internships and Professional Experiences

Matriculated students in good academic standing are eligible for internship placement if they meet departmental requirements for such placement. No more than 12 academic credits may be applied toward graduation. An internship is a form of experiential learning that permits a Worcester State matriculated student to convert theory into action. An internship may be undertaken with or without the expectation of academic credit. If credit is to be granted, however, the internship must be monitored and evaluated by the appropriate Worcester State department and a grade awarded at its completion. The internship can be constructed according to any of a number of models including professional apprenticeships, work experience, field research, career exploration, socio-political action and service learning. Because students must be actively involved in the development of an internship placement -by developing a resume, preparing necessary correspondence, or being interviewed-they should contact the faculty sponsor in the semester prior to the proposed internship. The internship contract sets forth the responsibilities of each party so that each understands his or her specific role in the educational field experience. Each program is designed to accommodate and articulate the personal goals of the student, the academic goals of the department, and the needs of the participating off-campus organization. Information about available internships is regularly relayed to, and publicized in, appropriate academic departments. The following conditions apply to all internships:

- No more than 12 units of internship credit may count toward a degree.
- Students undertaking internships must be in good academic standing.
- Only juniors and seniors may undertake internships.
- A copy of the student's internship contract with the sponsoring department must be filed with the Registrar's Office.
- Students are responsible for providing their own transportation for off-campus learning experiences.


## New England Regional Student Program

Worcester State participates in a regional cooperative program administered by the New England Department of Higher Education. The New England Regional Student Program offers qualified residents the benefits of in-state tuition plus $50 \%$ in certain programs at any New England state university, college, two-year college, or technical institute. The purpose of the program is to expand higher educational opportunities for New England residents by making available, on an equal basis, those programs not commonly offered at every institution. Information about the program can be obtained from the Admissions Office, from any school counselor, or online at www.nebhe.org/tuitionbreak/.

Eligible Programs for Worcester State University:
Biotechnology: residents of CT
Occupational Studies (BS): residents of CT, ME, RI, VT Urban Studies: residents of ME, NH, RI, VT

Zip Codes: 06245, 06246, 06255, 06262, 06277

## Off-Campus Courses

Matriculated students may enroll in off-campus courses at regionally accredited institutions in academic disciplines that are compatible with the Worcester State curriculum. To assure applicability and transferability, matriculated students must have approval in writing from their faculty advisor and the Registrar before enrolling in courses at other accredited institutions. Copies of course descriptions from college catalogs or other publications for each course must be attached. Forms are available
at the Registrar's Office (Administration Building, Room 107), or on the Registrar webpage: https:// www.worcester.edu/registrar/.

## Pre-Law Program

In addition to the minor in Pre-Law (/undergraduate/ school-humanities-social-sciences/political-science/ minor-pre-law/ (p. 432)), WSU has 3+3 Law Degree Agreements with the UMass School of Law and the Western New England University School of Law. More information about these programs can be found at https://www.worcester.edu/ArticulationAgreements/.

## UMass School of Law

333 Faunce Corner Road

Dartmouth, MA 02747
Western New England University of Law
1215 Wilbraham Road
Springfield, MA 01119

## Pre-Medical, Pre-Dental, PreVeterinary and Pre-Pharmacy Advisory Program

Worcester State University offers an advisory program for students interested in preparing for medical, dental, or veterinary studies, or for postgraduate study in another healthcare field such as pharmacy, physical therapy, or optometry. Students interested in any of these tracks may pursue study in any of the Worcester State University academic majors but must complete all prerequisite courses required for their post-graduate programs of interest. It is the students' obligation to check with the professional school(s) to which they intend to apply for exact requirements. Nearly all medical, dental, and veterinary schools require one year each of the following laboratory courses: General Chemistry, Organic Chemistry, Biology, and Physics. Schools typically also require one year of English (e.g. EN-101 and EN-102), and may require Mathematics through Calculus. Study of a modern foreign language is encouraged but not required. Regardless of major, students are advised to select $\mathrm{CH}-120$ and $\mathrm{CH}-121$,

General Chemistry I and II, and either BI-140 and BI-141, or PY-221 and PY-222 or PY-241 and PY-242 in their first-year.

Students interested in medicine (allopathic or osteopathic physician or physician assistant), dentistry, veterinary medicine, optometry, podiatry, or physical therapy should consult both the major advisor and the Chair of the Pre-Medical and PreDental Advisory Committee as soon as possible following matriculation. Students should note that the application process for many of these professional programs must be started more than a year in advance of the planned date of matriculation into the programs. Therefore, the course requirements and required national preprofessional exam (e.g., MCAT, DAT) must be taken before that time (e.g. during the spring of the Junior year for anyone wishing to begin a professional program immediately after graduation from WSU). Students wishing to apply to programs with a committee letter of recommendation (usually for medical, dental, or podiatry school but not veterinary school or other healthcare programs) must arrange an interview with the Pre-Medical and Pre-Dental Advisory Committee prior to applying. Students majoring in Biology, Biotechnology, or Chemistry have the option of declaring a Pre-Medicine Concentration in those majors. Students pursuing a major other than Chemistry may also declare a Chemistry Minor for the Health Professions. Additional information is available at http://www.worcester.edu/PreMed and for the pre-medicine concentrations/minor as follows:

- Major in Biology, Pre-Medical Concentration (p. 306)
- Major in Biotechnology, Pre-Medical Concentration (p. 309)
- Major in Chemistry, Pre-Medical Concentration
- Chemistry Minor for the Health Professions
- Pre-Medical Courses For Non-Biology, Biotechnology, or Chemistry Majors (p. 311)


## Reserve Officer Training Corps (ROTC) <br> Office of Military Affairs \& Veteran Services

The Office of Military Affairs \& Veteran Services acts as a liaison between the different ROTC options available to Worcester State University students.
Any interested can reach the director of Military Affairs \& Veteran Services, Dr. Stephanie Teixeira (steixeira1@worcester.edu).

## Air Force

The Department of Air Force Aerospace Studies at Worcester Polytechnic Institute offers education and training to become commissioned officers in the United States Air Force through its Air Force Reserve Officer's Training Corps (AFROTC) program to all qualified Worcester State University students. For further details, qualifications, and information on scholarship opportunities, please contact AFROTC Detachment 340, Worcester Polytechnic Institute, 37 Institute Road, Worcester, MA 01609, Phone: 508-831-5747, Email: afrotc@wpi.edu, Website: http://www.wpi.edu/academic/departments/air-force-aerospace-studies

## Army

The Department of Military Science at Worcester Polytechnic Institute offers the education and training to become commissioned officers in the United States Army through its Army Reserve Officer's Training Corps (ROTC) program to all qualified Worcester State University students. For further details, qualifications, and information on scholarship opportunities, please contact Army ROTC Office, Daniels Hall, Worcester Polytechnic Institute, 100 Institute Road, Worcester, MA 01609-2280, Phone: 508-831-5268, Email: armyrotc@wpi.edu

## Navy and Marine

The Department of Naval Science at the College of the Holy Cross offers the education and training to become commissioned officers in the United States Navy and Marine Corps through its Naval Reserve Officers Training Corps (NROTC) scholarship program and its College (non-scholarship) program to all qualified Worcester State University students. For further details, qualifications, and information on non-scholarship and scholarship opportunities,
please contact NROTC Office, College of the Holy Cross, One College Street, Box E, Worcester, MA 01610-2395, Phone: 508-793-2433/2434, Email: nrotc@holycross.edu

## Summer Programs

Worcester State offers a variety of undergraduate and graduate courses during the summer months. Two seven-week sessions, the first beginning in late May and the second beginning in early July, provide intensive enrichment opportunities for students working toward completion of degree requirements or upgrading and enhancing professional skills. In addition, there is a 14 week "Full Summer" session for classes that need to meet for a longer period of time. The summer schedule is usually available in March. Course listings are available at http:// www.worcester.edu/summer.

## The Washington Center for Internships and Academic Seminars

Worcester State participates in this internship program that combines experience in public, private, or non-profit sectors in Washington, D.C. with academic learning. The internship provides a unique opportunity to explore career paths while sampling the intellectual and cultural diversity of the nation's capital. This internship must be taken for academic credit, so it is imperative that a student meets with the faculty sponsor within his/her academic major early in the semester prior to the proposed participation.

Interested students should contact Michelle Kaelin, Associate Director of Employer Relations, who is the WSU Campus Liaison for The Washington Center (TWC) for Internships and Academic Seminars. She will explain how the application process works, how credits are applied at WSU, and all of the logistics involved in participating in this program. All students who apply to TWC must obtain the approval of the Campus Liaison.

## The Washington Center

1333 16th Street NW
Washington, DC 20036

## Services for Students

Student Services is a collaboration of varied offices designed to enhance each student's experience at Worcester State University. WSU offers career counseling, provides assistance for students with physical and/or learning disabilities, and presents programs for students who may need additional academic preparation for college success.

- Academic Supports, Policies, and Procedures (p. 34)
- Athletics and Recreation (p. 81)
- Bookstore (p. 82)
- Campus Ministry (p. 83)
- Career Services (p. 83)
- Counseling Services (p. 83)
- Dining Services (p. 83)
- Health Forms and Immunization (p. 84)
- Health Services (p. 85)
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- Office of Student Involvement and Leadership Development (p. 85)
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- The Binienda Center for Civic Engagement (p. 87)
- University Police Department (p. 87)
- Veterans Service (p. 88)


## Athletics and Recreation

The Athletics and Recreation office is an integral component of Worcester State University's efforts to provide a high-quality, affordable education and supportive environment that promotes the total development of the student. A 101,000 square foot Wellness Center provides our students robust intramural and recreational opportunities, while our student-athletes compete in some of the nicest indoor facilities in New England. Employment opportunities for students may also be available in the Wellness Center.

The Athletics and Recreation staff provides students with the opportunities to grow and learn through intercollegiate varsity athletics, intramurals, and wellness programs. Participation in these activities
fosters physical, mental, leadership, and life skills development, while enhancing self-discipline and sportsmanship qualities.

Worcester State University is a Division III member of the National Collegiate Athletic Association (NCAA) and a proud member of the Massachusetts State Collegiate Athletic Conference (MASCAC). The University sponsors the varsity sports of baseball, men's and women's basketball, men's and women's cross country, field hockey, football, men's and women's golf, men's and women's ice hockey, men's and women's soccer, softball, men's and women's indoor and outdoor track and field, women's volleyball, and women's lacrosse.

For those students interested in competing on a less formal level, Worcester State offers an intramural sports program in such sports as football, basketball, street hockey, dodgeball, softball, soccer and volleyball. Any student who wishes to participate in intramural sports, regardless of ability or past experience, is urged to do so.

The Wellness Center also offers additional opportunities such as use of the 9,000 square foot DeFeudis Fitness Center, three exercise rooms with daily group exercise classes as well as a golf simulator and several academic classrooms.

In all of its programs, the Athletics and Recreation office is cognizant of its responsibilities as an educational support component at Worcester State University.

## Bookstore

All required course materials for classes are available at the Worcester State University Bookstore located in the Student Center. This full-service bookstore offers new and used textbooks, as well as textbook rental. To make the book selection process for classes easier, please bring a class schedule. The Bookstore also stocks school supplies, specialty books and a wide variety of gifts and clothing imprinted with the Worcester State University logo.

## Used Textbooks

The Bookstore stocks many used copies of textbooks, but the supply is limited and they sell quickly. Students should shop early for the best selection of used books.

## Rent-A-Text

Students have the option to use Rent-A-Text through the University bookstore saving on average half the price of a new book. Students need to complete the short rental agreement online or at the register in the store. Students must be 18 years of age and provide a valid ID and a credit card as collateral. With Rent-A-Text, students can highlight and write in the book. Normal wear and tear is anticipated. Students can pick up rental textbooks in store or order online and have them shipped to their home.

## Textbook Rental Return Policy

Any student who uses the University Bookstore Book Rental Program must abide by the contact he/she signs with the bookstore. All rented textbooks are due back by the rental due date. Students who fail to return books or pay the balance due will have their accounts turned over to a collection agency. In addition, the student will not be eligible to participate in the Textbook Rental Program until he/she settles his/her debt.

## Online Purchasing

Textbooks and many general merchandise items are available on the bookstore website at http:// www.bkstr.com/worcesterstatestore/home. Students can purchase or rent textbooks by clicking on the textbook tab, picking the proper term and selecting the course and section numbers. Online orders can be picked up at the bookstore or they can be shipped home.

## Return Policy

Textbooks are returnable for one week after the first day of the semester, with receipt, provided they are unmarked and are in the purchased condition with all materials intact. General merchandise is returnable at any time with receipt.

## Ways to Pay

The bookstore accepts cash, personal checks, MasterCard, Visa, American Express, and Discover, as well as the OneCard. The bookstore also has gift cards available for sale both in store and online.

## Book Buy Back

The bookstore will purchase books back at any time, no matter where they were originally purchased, provided there is national demand for the book, as
determined by the bookstore's buying guide. The bookstore purchases books back for resale from Worcester State University students at half the new purchase price provided there is a current order and need for the book in the upcoming semester. The best time for students to sell books back is during finals when they are finished with them and the bookstore has the most-up-to-date information on the needs of the upcoming semester.

## See bookstore website for hours. Bookstore Online:

http://www.bkstr.com/worcesterstatestore/home

## Campus Ministry

Campus Ministry at Worcester State University offers you an interfaith experience for personal enrichment. We strive to cultivate the spiritual and psychological development of the university community, and we provide religious services, pastoral counseling, and a variety of spiritually uplifting and enlightening programs. We also sponsor bible study groups, prayer groups, rosary prayer, and events with ministry groups at other area campuses. Located on the main floor of the Learning Resource Center, the Campus Ministry Office and Prayer and Meditation Lounge is a sanctuary for reflection and relaxation. The space is open to all members of the university community, and we encourage you to use our main space for meetings or other scheduled events. Whether you seek solitude or connection with other people, you will find an atmosphere of peace and comfort here. Learn more https://www.worcester.edu/campus-life/ student-services/campus-ministry/

## Career Services

Career Services provides students with the opportunity to explore career fields, occupations and conduct self-assessment, link career planning to academic planning, obtain experience in a variety of professional areas, and make a successful transition from college to career or to further schooling. Career Services works with undergraduate and graduate students, and recent alumni on resume and cover letter writing, preparing for interviews, applying for internships/jobs, building LinkedIn profiles, and more! We have a wide variety of services and resources available. Please visit our website at http://www.worcester.edu/careerservices, or visit our office on the third floor of the Student Center. Appointments with a Career Advisor are available year-round to currently matriculated students
and alumni who have graduated within the past 5 years. Please call us at 508-929-8941 to make an appointment or if you have any questions. We look forward to serving you.

## Counseling Services

The Counseling Center assists students in coping with personal issues that interfere with their academic, personal development, and sense of wellbeing. The Counseling Center provides services to fully matriculated undergraduate students. Individual counseling is available to those who are seeking assistance. Following an initial evaluation, counselors will work with students to assess the level of services the student needs. This may include weekly, bi-weekly, or monthly appointments and in some cases a referral to community resources. Same day appointments may be available through our walkin triage process. Counselors are available to treat a wide-variety of mental health concerns including, but not limited to trauma, depression, anxiety, and substance use disorders. Group counseling may also be available on an as needed basis. On our website (worcester.edu/sp-counseling) students can access free online screenings for a variety of areas. These are available in Spanish and English.

The Counseling Center is located on the third floor of the Student Center. To make a counseling appointment, please call 508-929-8072 or you may email the Counseling Center at counseling_wsu@worcester.edu.

## Dining Services

Worcester State University Dining Services is managed by Chartwells. Chartwells is proud to offer an unforgettable dining experience that is built with passion and practicality; ingenuity and sensibility. Great food and exciting environments combined with pride of service transform the ordinary into the unexpected.

## Locations and Hours of Operation

There are five dining locations on campus: Sheehan Hall Dining Hall, The Food Court, Lancer's Loft, Starbucks Café, and The Market. To find out about hours of operations, menus, prices, specials, and upcoming events go to http:// www.dineoncampus.com/wsu.

Resident students can choose from block plans of 250 meals, 225 meals, 200 meals, 150 meals, 90 meals and 75 meals. Chartwells also has a mandatory commuter dining dollar plan for all firstyear students, sophomore, junior and first-time transfer commuter students. All meal plans only last a semester. To find out more information about meal plans, visit http://www.dineoncampus.com/wsu.

## Health Forms and Immunization

Each full-time undergraduate and graduate student, all full and part-time students in health science programs involving patient contact (Nursing, Occupational Studies, and Communication Sciences and Disorders), and all students attending Worcester State University on a student visa must present evidence of immunization in order to register for courses. Massachusetts law specifies the following immunizations:

1. two doses of measles, mumps and rubella vaccine given at least one month apart beginning at or after 12 months of age; and
2. one dose of tetanus/diphtheria/pertussis (Tdap) is required, if it has been 5 years or more since the last dose of tetanus/diphtheria (Td); and
3. three doses of Hepatitis $B$ vaccine; and
4. all full-time students, 21 years of age and younger, and all students(regardless of age) living in a dormitory or other congregate oncampus housing, will be required to have immunization with the Meningococcal vaccine to protect against serotypes A, C W and Y, on or after their 16th birthday, or the student/parent/ legal guardian may sign the Meningococcal Information and Waiver Form developed by the Massachusetts Department of Public Health; and
5. a history of varicella (chicken Pox) disease verified by a health care provider, or two doses of Varicella vaccine given at least 1 month apart beginning at or after 12 months of age.

A copy of an immunization record from a school or medical provider's office indicating receipt of the required immunizations may be presented; or in the case of measles, mumps, rubella, Hepatitis B, or varicella, laboratory evidence of immunity. The law provides for medical and/or religious exemptions.

Provision is also made to allow students to register on condition that the required immunizations are obtained within thirty days of enrollment.

Students must submit the Worcester State University Health and Immunization form, completed by a medical provider, in order to register for courses. In addition to the required immunizations, this form includes a physical exam completed within 15 months of entrance to school, and the completion of the Tuberculosis Risk Screening Questionnaire.

All resident students must have a complete Worcester State University Health Form in order to move into the residence halls.

All students, listed previously, must have a complete Worcester State University Health Form in order to register for classes.

If a student does not have a complete Worcester State University Health Form within 30 days of enrollment, a Health Hold is placed on his/her account, and he/she will not be able to register for classes the next semester.

## Contact Information

For additional information regarding the Worcester State University Health and Immunization Form or Health Holds, please contact :

Health Services - Sheehan Hall
508-929-8875
508-929-8075 (fax)
email: avickstrom1@worcester.edu
Webpage: http://www.worcester.edu/Health-
Services/

## Health Insurance

The Commonwealth of Massachusetts requires that students must be covered by health insurance under their own policy or purchase the Worcester State University health insurance plan. Health insurance is required for undergraduate students if they register for nine (9) or more semester hours of credit. Coverage for graduate students is required if they register for four and a half (4.5) or more semester hours of credit.

At the time of Fall and Spring registration, all students will be enrolled in and charged for the Worcester State University Student Health Insurance Program. Students who do not wish to participate
in Worcester State University's plan must return the completed waiver request form that is enclosed with their bill. They may also waive the insurance online at University Health Plans. Both the completed waiver form and proof of insurance coverage should be returned with payment of their bill to the Bursar's Office. Students who enroll only in summer session courses are not required to participate.

## Health Services

Health Services offers health care and health education to currently enrolled full-time/part-time, matriculated, undergraduate students. The office is staffed by nurse practitioners and part-time physicians during the Academic Year.

## Services

Services include visits for health concerns/illness, health maintenance/wellness information, women's health including routine gynecological exams/ pregnancy issues/contraception, STI screening (male and female), Physical Exams in select situations, Tuberculosis skin testing in select situations, and specialty referral as needed. Information about the student's care will only be shared with the student's written approval, except as required by law, and in cases of danger to the student or others. Students' Health and Immunization Forms remain on file in the Health Services office.

## Costs

Most services in Health Services are covered by the Health Services Fee billed with the tuition bill. Any laboratory tests sent out from Health Services are billed to the student's health insurance company. The student is responsible for any additional charges not covered by their health insurance company. Students should call their health insurance company prior to the appointment to determine if they require laboratory specimens to go to a specific laboratory company. The laboratory specimens are sent to Quest Diagnostics Labs. Health Services does not bill your health insurance company for visits to our office or collect copayments at the time of the office visit.

## Location/Hours

The Health Services Office is located in Sheehan Hall. The office has a separate entrance from the main entrance doors of Sheehan Hall. The office entrance is located to the right of the main entrance, down the sidewalk headed toward lower campus.

Office hours during the Academic Year for clinical visits are:

Monday - Friday 8 a.m. - 4 p.m.
When Health Services is closed, emergencies are referred to Worcester State University Police, 508-929-8911

## Appointments

Appointments can be made by calling the Office, 508-929-8875. It is best for the student to call as early in the day as possible, to schedule an appointment that is convenient for their schedule.

## Contact Information

Health Services
508-929-8875
508-929-8075 (fax)
email: health_services@worcester.edu
Webpage: Health Services

## LGBTQIA+ Resource Center

The Worcester State University LGBTQIA+ Resource Center works to create an open and inclusive environment for all students, faculty, and staff. The center aims to affirm all sexual orientations, and gender identities through advocacy, education, and events.
Contact: Igbtqia@worcester.edu

## Office of Student Involvement and Leadership Development

The Office of Student Involvement and Leadership Development ("OSILD") is located on the 2nd floor of the Student Center. The mission of OSILD is to support the goals of Worcester State University by providing a co-curricular program student experience to challenge and encourage students to become empowered, inclusive, and knowledgeable future
community and global leaders. Coupled with their intensive academic program, the co-curricular program allows the student to get the most out of their university experience. Through participation in leadership training, student organizations, and a diverse array of social, cultural, and educational programs, the student benefits by getting real world experience in planning and implementing their own programs. These experiences allow the student to gain valuable life lessons such as time-management and event planning as well as other leadership skills.

## Student Organizations

Students are encouraged to participate in at least one co-curricular activity during their time at WSU. There are over 40 active student organizations on campus including groups such as Student Events Committee, Intercultural Student Alliance, Student Government/Student Senate, Equestrian team, Dance Team, Dance Company, Active Minds, Enactus, LGBTQ+ Alliance, Campus Ambassadors, Games Club, Cheerleading, Men's Lacrosse and many others. Leadership training is also provided and encouraged for all members of student organizations to improve their leadership skills and prepare for life after WSU. For more information check out our Student Organization page.

## Student Center

The centrally located Student Center is both the heart of campus and the hub for student involvement, and students gravitate here to relax, socialize, study, work, attend meetings and events, and grab a bite to eat. The Student Center is home to a wide range of student services as well as the Information Desk, Resource Room, Bookstore, student organizations, living room lounge, and administrative offices. For more information regarding the Student Center check out our Student Center page.

## Leadership Programs

To enhance skills needed by students for their career after WSU, our office offers an array of leadership programs for students involved in student organizations as well as to the larger WSU population. Our three tier leadership program, Circles of Leadership, allows students to partake in a progressive and immersive leadership experience through workshops and skill building sessions over their time as an undergraduate. OSILD also coordinates the annual Leadership Symposium, a
one-day event for students looking to expand their knowledge in many different areas of leadership, and provides leadership resources and shares stories of student leaders on http://worcester.edu/campus-life/ leadership-opportunities/. Additional programs are offered specifically for student organization members as well including our Leadership Summit and our program planning and budgeting trainings.

## Commuter Services

OSILD also provides many opportunities for commuters to get involved on campus. Commuter Services staff is dedicated to assisting students and serves as an advocate for commuter concerns. Students are welcome to contact Commuter Services to express any concerns that you may encounter as a commuter student at WSU. The office works in conjunction with the Commuter Activities Board to support commuter students in addressing such concerns. The Commuter Activities Board ("CAB") is a major student organization supporting the voice of commuter students and plans fun and educational events for the entire campus community with particular emphasis on commuter students.

## Orientation

OSILD also oversees the planning and implementation of the Orientation Program. The comprehensive program includes sessions for first year students, parents, and transfer students as well.

Email: studentinvolvement@worcester.edu
Phone: 508-929-8073

## Residence Life and Housing Mission

Residence Life and Housing is committed to providing inclusive living and learning experiences that enhance our residents' engagement in their own development and academic success.

Students may choose to live in one of four residence halls on campus: Chandler Village, Dowden Hall, Sheehan Hall or Wasylean Hall.

Residence Life and Housing
101 Sheehan Hall
508-929-8074
reslife@worcester.edu
http://www.woolife.worcester.edu

## Student Accessibility Services

Worcester State University is dedicated to making its programs, services and activities accessible for all students. Student Accessibility Services (SAS) collaborates with and empowers students who have disabilities in order to coordinate support services and programs that enable equal access to an education and university life. SAS assists eligible students with self-advocacy, utilizing reasonable accommodations, and gaining awareness about campus-wide resources in order to fulfill their postsecondary education goals. SAS provides a welcoming, supportive and engaging setting for students, and promotes disability as an essential aspect of diversity and inclusion on campus.

Accommodations and services are individually determined through an interactive intake process. Please see our website: www.worcester.edu/ Student-Accessiblity-Services for documentation guidelines. For further information, contact us: Room 131, Shaughnessy Administration Building, telephone: 508-929-8733, fax: 508-929-8214, email: sas@worcester.edu.

## The Binienda Center for Civic Engagement

The Binienda Center for Civic Engagement was established originally as the Center for Service Learning and Civic Engagement in the Spring of 2006 by a group of distinguished faculty at Worcester State University. The center was gifted by the family of John Binienda in 2014 and the center renamed in the honor of our distinguished Alum. Currently located in the Office of Student Affairs (Student Center room 335) the mission of the Center is to challenge students and faculty to investigate social problems by examining their root causes in the classroom while simultaneously addressing them in the community. To accomplish this successfully, students and faculty are encouraged to work collaboratively with community partners to design effective research and service projects. We facilitate projects such as Jumpstart, an Americorps preschool literacy program. We sponsor alternative spring break trips, including one to the Mote Marine laboratory on Summerland Key, Florida. We offer
reciprocal partnerships with public, private and non-profit organizations in communities to address critical social issues. One of our central projects remains a living learning community, the Community Leadership Experience (CLEWS) that invites students to play an active and positive role in campus life. The hope of our civic engagement projects is that higher education institutions engender students' civic learning through participation in civic engagement, academic coursework, extracurricular activities and off-campus programming. Used effectively, civic learning and civic engagement prepare individuals for effective democratic participation, which in turn promotes growth of healthy communities, global economic vitality, social and political well being, and positive human interactions. Faculty, staff, students and community partners needing support in civic learning and engagement practices are invited to contact the center's director at: WSU_BiniendaCenter@worcester.edu

## University Police Department

The Worcester State University Police Department's main priority is to provide the safest and most secure environment possible for the students, faculty, staff, and visitors that comprise the institution's community. WSU believes that safety is everyone's responsibility and encourages students, faculty, and staff to engage in community policing and to report any suspicious activity to Worcester State University Police. Policing is provided 24 hours a day throughout the calendar year by a full-time staff of sworn officers, security officers, and dispatchers. Worcester State University Police officers enforce the rules and regulations of Worcester State University in conjunction with applicable state and federal laws. The department also provides crime prevention programs and seminars scheduled at intervals throughout the year as well as ad hoc programs when requested by any constituent of the Worcester State University community.

The Worcester State University Police Department and the Parking and Transportation Office are located on the first floor of Wasylean Hall. The University Police may be reached by visiting www.worcester.edu/police or by calling 508-929-8911 for emergencies or 508-929-8044 for
non-emergency calls. The Parking and Transportation Office can be reached by visiting www.worcester.edu/ parking or by calling 508-929-8887.

## Veterans Service

Worcester State University proudly welcomes student Veterans. Veterans have provided a noble and crucial service and for that, Worcester State thanks you. Worcester State is committed to helping Veterans and their dependents meet their educational needs by providing information, services, and support.

## Certifying Official for Veterans Benefits

The WSU Certifying Office for Veterans Benefits contact, who handles certifications for Chapter 33, the Post-9/11 GI Bill®, and the Montgomery GI Bill® at WSU is: Cherie Milosh, Veterans Affairs School Certifying Official (cmilosh@worcester.edu) Registrar's Office, Administration Building, Room 107, 508-929-8773.

The Registrar's Office can also provide general information of interest to Veterans and dependents of Veterans enrolled at WSU. Veterans and dependents of Veterans wishing to inquire about possible Veteran's benefits should contact VA Education Benefits at 1-888-442-4551.
(GI Bill ${ }^{\circledR}$ is a registered trademark of the U.S. Department of Veterans Affairs (VA). More information about education benefits offered by VA is available at the U.S. government web site at https:// www.benefits.va.gov/gibill).

## Director of Military Affairs \& Veteran Services

The Director and the Office of Military Affairs \& Veteran Services provides access to resources, programming, and positive opportunities as well as creating and fostering a community of Veterans and military connected students at Worcester State University community. Anyone interested in ROTC opportunities available at WSU should reach out to the director. Once a Veteran has been accepted to WSU and the benefits are certified, the Office of Veterans Services will assist in the transition to the academic environment. Every day the office works to provide necessary resources, student Veteran advocacy, research and programing to aid in student

Veterans in achieving their goals at WSU. The student Veteran Lounge located in the Student Center also has off- campus resources, a space to study, or relax between classes.

The mission of the Office of Military Affairs \& Veteran services is to ensure that Veterans and dependents are successful in completing their academic undergraduate and graduate goals at WSU. Through dedicated partnerships both on WSU campus and in the greater Worcester community, we are dedicated to the academic, professional, personal development, and empowerment of military connected students. We encourage you to reach out, contact the Director of Military Affairs \& Veteran Services, Dr. Stephanie Teixeira (steixeira1@worcester.edu) Student Center, 3rd Floor, 508-929-8884.

## Veterans Access, Choice, and Accountability Act

The Veterans Access, Choice and Accountability Act of 2014 (codified at 38 U.S.C. 3679) has been amended by Public Law 117-68, the Colonel John M. McHugh Tuition Fairness for Survivors Act of 2021, which modifies 38 U.S.C. 3679(c).

The amendment requires that for all courses, semesters, or terms beginning after August 1, 2022, public institutions of higher education must charge qualifying Veterans, dependents, and eligible individuals the in-state resident rate for tuition and fees.

In summary, Public Law 117-68 adds Chapter 35 recipients to individuals required to receive the in-state resident tuition rate effective August 1, 2022.

As amended, 38 U.S.C. 3679(c) requires that all of the following individuals be charged the in-state resident rate:

- A Veteran using educational assistance under either Chapter 30 (Montgomery G.I. Bill® - Active Duty Program), Chapter 31 (Veteran Readiness \& Employment) or Chapter 33 (Post-9/11 G.I. Bill®), of 38 U.S.C. who lives in the state in which the institution is located (regardless of their formal state of residence).
- Anyone using transferred Post-9/11 G.I. Bill $®$ benefits (38 U.S.C. § 3319) who lives in the state in which the institution is located (regardless of their formal state of residence).
- Anyone using benefits under the Marine Gunnery Sergeant John David Fry Scholarship (38 U.S.C. $\S 3311(\mathrm{~b})(9)$ who lives in the state in which the institution is located (regardless of their formal state of residence).
- Anyone using Chapter 35 (Survivors and Dependents Educational Assistance Program) benefits who lives in the state in which the institution is located (regardless of their formal state of residence).
- Anyone described above while they remain continuously enrolled (other than during regularly scheduled breaks between courses, semesters, or terms) at the same institution. The person so described must be using educational benefits under Chapter 30,Chapter 31, Chapter 33 or Chapter 35 of 38 U.S.C.

Federal law permits public institutions of higher education to require eligible Veterans, dependents, or individuals to demonstrate their intent to establish residency in the state by means other than satisfying a physical presence requirement. For example, institutions can request documentation such as a driver's license, car registration or voter registration, signed lease, or rent receipt to help establish an applicant's intent to establish residency in Massachusetts.

Please note that the federal law does not include a durational residency requirement, nor does it include a requirement that the eligible Veteran, dependent, or individual demonstrate intent to remain in Massachusetts indefinitely. Finally, please note that the federal law does not bar institutions from requiring the eligible Veteran, dependent, or individual to meet other requirements, unrelated to residency, in order to be eligible for the in-state tuition rate.

Public institutions of higher education are required to make this in-state tuition applicability to covered individuals publicly available in their academic catalogs and on their websites. The U.S. Department of Veterans Affairs ("VA") will make publicly available on its website a database explaining any public institution's requirements for beneficiaries to be charged in-state tuition.

Any institution found not to be in compliance with the requirements of Public Law 117-68 by August 1, 2022, will be disapproved by VA for the Chapter 33 Post-9/11 G.I. Bill®, Chapter 30 Montgomery G.I. Bill®-Active Duty Program, Chapter 35 Survivors and Dependents Educational Assistance Program and Chapter 31 Veteran Readiness and Employment (VR\&E).

## Harry W. Colmery Educational Assistance Act of 2017

WSU adheres to the Harry W. Colmery Educational Assistance Act of 2017 (Forever GI Bill®) - Section 107. Below is a list of addresses including zip codes of any location where a student may physically take classes other than the address approved under Worcester State University's VA-assigned facility code and approved by the Massachusetts State Approving Agency. This list can be found below and at https:// www.worcester.edu/Military-and-Veteran-Students/.

Aids Project Worcester-nature of site-Practicum 85 Green Street, Worcester, MA 01604

Fairlawn Rehabilitation Hospital-nature of siteClinical
189 May Street, Worcester, MA 01602
Saint Francis Rehabilitation Center-nature of siteClinical
101 Plantation Street, Worcester, MA 01604
Sterling Village-nature of site-Clinical
18 Dana Hill Road, Sterling, MA 01564
University of Massachusetts Medical School-nature of site-Practicum
55 Lake Avenue North, Worcester, MA 01609
Worcester Polytechnic Institute-nature of site-ROTC 100 Institute Road, Worcester, MA 01609

United Nations Association of Greater Boston-nature of site-Internship
85 Devonshire Street \#1000, Boston, MA 02109
Hostal Dona Chava-nature of site-Field work Calle 2da NO,5, Pedernales 84000
Dominican Republic
May Street School-nature of site-Practicum
265 May Street, Worcester, MA 01602
Doherty Memorial High School-nature of sitePracticum

299 Highland Street, Worcester, MA 01602
Family Behavioral Health, Inc.-nature of siteInternship
387 Main Street, Oxford, MA 01540
Fairway Independent Mortgage Corporation-nature of site-Internship
783 Southbridge Street, Auburn, MA 01501
Autism Links-nature of site-Internship
377 Shrewsbury Street, Worcester, MA 01608
Machado Consulting, Inc.-nature of site-Internship
32 Franklin Street, $5^{\text {th }}$ floor, Worcester, MA 01608
Sullivan Middle School.-nature of site-Practicum 140 Apricot Street, Worcester, MA 01603

Goddard School of Science \& Technology-nature of site-Internship
14 Richard Street, Worcester, MA 01603
Ware Police Department-nature of site-Internship 22 North Street, Ware, MA 01082

## Veterans Benefits and Transition Act of 2018

For Veterans using Chapter 31 and Chapter 33 VA benefits, Worcester State University adheres to S2248 PL 115-407 Section 103. For Chapter 33 to be considered a "covered individual" under the Veterans Benefits and Transition Act 2018, the Veteran or other eligible beneficiary must provide a Certificate of Eligibility (COE) or statement of benefit from the Department of Veterans Affairs prior to the first day of classes. The Veteran or other eligible beneficiary must complete a Worcester State University Veteran In-House form to have their VA educational benefits certified for the semester. The Veteran or other eligible beneficiary may be required to provide additional information necessary to properly certify their enrollment by the educational institution. For Chapter 31, the School Certifying Official must receive an authorization from the Department of Veterans Affairs. Worcester State University will not impose any penalty, including the assessment of late fees, the denial of access to classes, libraries, or other institutional facilities, or the requirement that a covered individual borrow additional funds, on any covered individual because of the individual's inability to meet his or her financial obligations to the institution due to delayed disbursement funding
from VA under Chapter 31 or Chapter 33 except for the amounts not covered by the COE, statement of benefit, or the authorization. Refer to the Worcester State University payment policy (p. 97).

## Financial Information

- Affordability/Accessibility Disclosure Statement (p. 90)
- Evening Undergraduate, Graduate, and Summer Programs (p. 91)
- General Worcester State Refund Policy (p. 91)
- Return of Title IV Funds (p. 92)
- Room and Board (p. 94)
- Student Health Insurance (p. 95)
- Tuition and Fees (p. 95)
- Tuition Surcharge (p. 97)
- Undergraduate State-supported Programs (p. 97)


## Affordability/Accessibility Disclosure Statement

2023-2024
The schedule of fees, tuition, methods of payment and refund policies are those in effect at the time of publication. They are subject to change without notice.

One of the benefits of being part of public higher education in Massachusetts is the substantial subsidy students receive to enroll in Worcester State. The annual cost information below is provided about the "average" student as a way of showing the amount of this subsidy.

Full Operating Cost (per full- $\$ 31,365$
time student)
Less: State Operating
$(\$ 11,910)$
Subsidy
$=$ Tuition and Mandatory \$19,455
Fees (based on 30 credit hours)

| Add: Average Residence | $\$ 12,567$ |
| :--- | :--- |
| Hall Fees |  |
| = Cost of Attendance | $32,022^{*}$ |
| Estimate |  |

Annual Aid Available to
Students
Less: Average Annual
$(\$ 10,256)$
Student Financial Aid
$=$ Net Direct Price to Student *\$21,766*

## Evening Undergraduate, Graduate, and Summer Programs

Tuition for undergraduate courses is currently \$130 per semester hour of credit. Tuition for graduate courses is currently $\$ 169$ per semester hour of credit. Tuition is payable at the time of registration and may be made by bank check, money order, personal check, or credit card (MasterCard, Visa, American Express or Discover); cash will not be accepted.

Fees are charged and payable when and as applicable:

| Administrative Fee <br> (Undergraduate) | $\$ 143.00$ - per credit |
| :--- | :--- |
| Administrative Fee (Graduate) | $\$ 143.00$ - per credit |
| Capital Improvement Fee | $\$ 26.50$ - per credit |
| Transcript | $\$ 10.00$ - per copy |
| Rush Transcript | $\$ 10.00$ - per copy |
| Laboratory Instruction | $\$ 90.00$ - per course |
| Nursing Clinical | $\$ 320.00$ - per course |
| Field Work Supervision/ <br> Internship/Teacher Education | $\$ 15.00$ - per credit |
| Practicum |  |
| International Student Fee-Fall/ | 250.00 per term |
| Spring | 125.00 per term |
| International Student Fee- |  |
| Summer |  |

Tuition and fee charges are subject to change by the Board of Trustees.

## Course Cancellation/Processing of Tuition Refunds

Worcester State reserves the right to cancel any course for which there is insufficient enrollment. Students may transfer to another course by completing appropriate forms in the Registrar's

Office. Processing of tuition refunds takes two to four weeks. Refunds are sent to the student at the address of record.

## General Worcester State Refund Policy <br> Applicability

This refund policy applies to all full- and part-time students enrolled in regularly scheduled courses at Worcester State. This policy applies to all tuition, room, board, fees, and other standard billed charges.

## Withdrawal Requirements

All matriculated students, undergraduate and graduate, who wish to withdraw from Worcester State must do so in writing to the Registrar's Office on the prescribed form. The official date of withdrawal is that on which the completed form is received and stamped by the Registrar.

All withdrawals from courses - rather than withdrawal from Worcester State entirely - must be done in writing to the Registrar's Office, following the procedures established for that purpose.

## Refund Policy

Refunds for withdrawal from Worcester State or withdrawal from courses will be made based on the following schedule if official notice of withdrawal has been received in writing and certified by the Registrar:

1. Prior to the first day of classes, or within the official add/drop period

- Full refund of all tuition and fees paid

2. After the official add/drop period

- No refund of any tuition or fees paid (unless registration is cancelled by Worcester State)

3. Room Charge (if applicable) A. Agreement Releases

A Student may request, in writing, a release from this Agreement under the following conditions, but will forfeit the deposit if granted:

1. Graduation; 2. Withdrawal from University; 3. Transferring to another school; and 4. University approved study abroad.
B. Buy-Out of Agreement

A Student seeking a release from this Agreement for any other reason will be charged the corresponding Buy-Out. A Buy-Out of $60 \%$ of room charges for the Fall semester is available through the $8^{\text {th }}$ week of the Fall semester. After the $8^{\text {th }}$ week of the Fall semester, Students are responsible for $100 \%$ of the Fall semester room charges and $60 \%$ of the Spring semester room charges. A Buy-Out of $60 \%$ of room charges for the Spring semester is available until the $8^{\text {th }}$ week of the Spring semester. After the $8^{\text {th }}$ week of the Spring semester, students are responsible for $100 \%$ of the Spring semester room charges. Students who participate in the Buy-Out are not eligible for a refund of their deposit.

## C. Returning Students Cancellation Policy

Current Students who complete a License Agreement, thereby reserving a space for the 2023-2024 academic year, may request, in writing, to cancel this Agreement according to the terms listed below.

Cancelation before Residence Hall Opening for the Fall semester will result in forfeiture of the housing deposit and being assessed a $\$ 500.00$ cancellation charge. All cancellation dates will be established by date received in the Office of Residence Life and Housing.

Current resident students withdrawing for the Spring 2024 semester must have their belongings moved out of their residence hall room within 72 hours of withdrawing from housing and/ or University.
D. Incoming Student Cancellation Policy

Upon receiving a signed Agreement and deposit, this Agreement will be accepted by the Office of Residence Life and Housing for assignment. A Student may request, in writing, to cancel this Agreement within 7 days of the signed Agreement with no penalty except the forfeiture of deposit. Students who cancel this Agreement after the 7th day but before the Fall or Spring semester opening will be assessed a $\$ 300.00$ cancellation charge and will forfeit their deposit. Additionally, this Agreement cannot be canceled within 5 days of a semester opening as listed in
the Academic Calendar. All cancellation dates will be established by date received in the Office of Residence Life and Housing.

## E. License Agreement Buy-Out Appeal

For a Student wishing to appeal a Residence Hall Buy-Out based on a Medical or Financial Hardship, a request in writing must be submitted no later than 48 hours after the approval of the Residence Hall Buy-Out. The criteria and documentation required within the letter of appeal can be requested by email to reslife@worcester.edu. Appeals are heard on a case by case basis.

## Return of Title IV Funds

Refund Policy for Students Who Receive Federal Financial Aid

## Applicability

This refund policy applies only to all full- and parttime students enrolled in regularly scheduled courses at Worcester State who are receiving Federal Title IV Financial Aid.

This policy is mandated by federal regulation.

## Withdrawal Requirements

Matriculated students who fail to take a course during a calendar year will be administratively withdrawn from Worcester State University. Students who wish to permanently withdraw from Worcester State University or take a temporary leave of absence must complete appropriate forms in the Academic Success Center. If the withdrawal or leave of absence is filed prior to the last day to withdraw from courses for the term, "W" will be recorded on the student's record. Students who file for leave of absence or withdrawal after the last day to withdraw from courses for the term may petition if they feel circumstances warrant the recording of " $W$ " for all courses enrolled for that term. Normally, a leave of absence is for one semester; however, a student may have up to one year to return to Worcester State University. Failure to return at the specified time will result in an administrative withdrawal from Worcester State University.

## Return of Federal Title IV Funds Policy

Return of Title IV Funds is based on the date a student completely withdraws from Worcester State University (WSU) as determined by the Registrar. During the first $60 \%$ of the semester a student earns Title IV funds in direct proportion to the length of time he or she remained enrolled. A student who remains enrolled beyond the $60 \%$ point earns all aid for the semester. The $50 \%$ point of the semester is used for unofficial withdrawals in cases where the last day of academic activity could not be confirmed by the faculty member.

The percentage of the semester that a student remains enrolled is derived by dividing the number of days a student remains in attendance by the number of days in a semester. Calendar days are used but breaks of at least five days are excluded from both the numerator and the denominator.

The school will perform these calculations as soon as possible but no later than 45 days from the date of the withdrawal determination. Post withdrawal disbursements must be credited back to the student within 45 days for grants. Loans will be offered to the student with 30 days which students then have 14 days to accept the loans. All credit balances are applied to the students account first before any refunds are made. If the result of the calculation creates a credit balance, the credit balance must be disbursed as soon as possible, but no later than 14 days.

## Post-withdrawal Disbursements:

Federal regulations require that we notify the parent of late PLUS Loan disbursement and/or the student of late Federal Direct Student Loan disbursement. In addition, we require confirmation from the parent and/or student that they accept this late disbursement.

WSU processes a Return of Title IV Funds calculation to determine if a student is eligible for a postwithdrawal disbursement. If the student and/or parent decides to accept the late disbursement we can reinstate the loan up to 120 days from last attendance.

All Title IV returns are reversed from the student's account and refunded to the appropriate Title IV programs. The student is informed of the result of the Return of Title IV Funds via a revised award letter notification.

Title IV Funds are returned in the following order (within 45 days of the date WSU determined that the student withdrew):

Federal Direct Unsubsidized Loan

Federal Direct Subsidized Loan

Federal Perkins Loan

Federal Parent Loan

Federal Pell Grant

Federal Supplemental Educational Opportunity Grant
Other Title IV programs
See examples below.

## EXAMPLE 1 :

Student 1 stopped attending classes on November 8. The semester began on September 6 and is 109 days long. Student 1 attended 64 days and has earned 58.7 percent of his financial aid ( 64 days divided by 109 days equals 58.7).

Student 1 received in aid:

Federal Pell Grant \$1,083

Federal Direct Subsidized Loan \$1,750

Federal Direct Unsubsidized Loan \$1,000

Federal Parent Loan \$5,210

Total aid = \$9,043

1. The amount of federal aid earned is $58.7 \% \mathrm{x}$ $\$ 9,043=\$ 5,308.24$
2. Total federal aid unearned is $\$ 9,043-\$ 5,308.24=$ \$3,734.76
3. The second calculation determines percentage of amount unearned based on school charges for tuition. Student 1 was charged \$5,366 in tuition and did not live on campus. Percentage of unearned aid for this second calculation is 100\%
$-58.7 \%=41.3 \%$. Therefore, unearned aid based on the tuition charges for the semester, $\$ 5,366 \mathrm{x}$ $41.3 \%=\$ 2,216.16$.
4. The amount of federal aid Student 1 must return is the lesser of step 2 or $3(\$ 2,216.16$ in our example).
5. Federal guidelines determine the order of aid types to be reduced. Therefore Student 1's aid will be reduced accordingly:

Federal Direct Unsubsidized Loan \$0 (\$1,000 returned)

Federal Direct Subsidized Loan \$534 (\$1,216 returned)

Federal Parent Loan \$5,210 (no adjustment)
Federal Pell Grant \$1,083 (no adjustment)
The total returned amount of $\$ 2,216$ will be reversed from Student 1's account and returned to the appropriate Title IV funds reducing Student 1's total aid to $\$ 6,827$.

## EXAMPLE 2:

Student 2 stopped attending classes on March 1. The semester began on January 6 and is 111 days long (excluding a 5 day break). Student 2 attended 44 days and has earned 39.6 percent of his financial aid ( 44 days divided by 111 days equals 39.6).

Student 2 received in aid:
Federal Pell Grant \$2,907
Federal Direct Subsidized Loan \$2,250
Federal Direct Unsubsidized Loan \$1,000
Total aid = \$6,157

1. The amount of federal aid earned is $39.6 \% \mathrm{x}$ $\$ 6,157=\$ 2,438.17$
2. Total federal aid unearned is $\$ 6,157-\$ 2,438.17=$ \$3,718.83
3. The second calculation determines percentage of amount unearned based on school charges for tuition. Student 2 was charged $\$ 3,318$ in tuition and did not live on campus. Percentage of
unearned aid for this second calculation is $100 \%$ $-39.6 \%=60.4 \%$. Therefore, unearned aid based on the tuition charges for the semester, $\$ 3,318 \mathrm{x}$ $60.4 \%=\$ 2,004.07$.
4. The amount of federal aid Student 1 must return is the lesser of step 2 or $3(\$ 2,004.07$ in our example).
5. Federal guidelines determine the order of aid types to be reduced. Therefore Student 1's aid will be reduced accordingly:

Federal Direct Unsubsidized Loan \$0 (\$1,000 returned)

Federal Direct Subsidized Loan \$1,246 (\$1,004 returned)

Federal Pell Grant \$2,907 (no adjustment)
The total returned amount of $\$ 2,004$ will be reversed from Student 2's account and returned to the appropriate Title IV funds reducing Student 2's aid to \$4,153.

## Room and Board

Students admitted to Worcester State as resident students will be notified by the Director of Admissions. The information will be made available to the Residence Life Staff and subsequent correspondence regarding residence hall assignments should be sent to the Office of Residence Life and Housing. First-year residents, including first-year transfer students, are not guaranteed a parking permit.

Housing is guaranteed ONLY for the specified academic year for which a student signs an occupancy agreement.

Students residing in campus housing are assessed a room fee and a food service fee each semester. All students residing on campus are required to purchase a food service plan for the academic year. Upon acceptance, each resident student must pay a $\$ 150$ non-refundable room deposit and a $\$ 100$ damage deposit:

## For First-Year and Transfer Students:

1. A separate check for $\$ 150$ (non-refundable) must be submitted to the Admissions Office. Payment of this deposit and the resident's receipt of an agreement signed by Worcester State will reserve a space for occupancy; half of the deposit is applied to the room charge for each semester.
2. The $\$ 100$ damage deposit will be billed with room rent.

## For Returning Residents:

1. A $\$ 150$ room deposit (non-refundable) along with a signed License Agreement Form must be submitted at the time of room selection for the following year; half of the deposit is applied to the room charge for each semester.
2. The $\$ 100$ damage deposit will be billed with room rent.

## Food Service Plan

The food service plan is a board plan that permits the user to purchase a specific number of meals per semester. All resident students are required to be on a meal plan. These plans were designed to meet the needs of those students who will plan to eat a majority of their meals on campus. The food service staff are available to meet with students to develop an appropriate food service plan. These plans are also available for commuter students.

## Waiting List Procedure

First-year and transfer students may submit to the Admissions Office a $\$ 150$ room deposit to be considered for room assignment. All other students may submit to the Residence Life Office a $\$ 150$ on-line room deposit along with a signed License Agreement Form to be considered for room assignment. Students' names will be placed on a waiting list until a room becomes available; assignments will be made on a first-come, firstserved basis.

## Student Health Insurance

Undergraduate degree seeking students enrolled in nine (9) or more credits per semester, and graduate degree seeking students enrolled in 4.5 or more credits per semester are required by State regulation to carry individual health insurance coverage. Students without such coverage will be billed a health insurance premium (currently $\$ 3779.00$ per year) for mandatory enrollment. Students who
already have appropriate coverage must complete a waiver of insurance at the time of payment (before the first day of classes) in order to waive the mandatory insurance premium. Any student not completing a waiver will be billed for insurance. This charge may not be adjusted, and is non-refundable after the add/drop period.

## Tuition and Fees

Tuition and fee schedules are presented separately for undergraduate day programs, and evening undergraduate, graduate and summer programs. Certain students may be eligible for tuition waivers. Information about eligibility requirements can be found in the section on financial aid.

## Tuition and Fees - 2023/2024

| Undergraduate |
| :--- | :--- | :--- |
| Day Division |


${ }^{1}$$\quad$ Annual | Per |
| :--- |
| Semester |$\quad$| Per Cr. |
| :--- |
| Hour |

Time In-State
Student

| Tuition: |  |  |  |
| :--- | :--- | :--- | :--- | :--- |
| MA Resident | $\$ 970.00$ | $\$ 485.00$ | $\$ 40.42$ |
| Non- | $\$ 7,050.00$ | $\$ 3,525.00$ | $\$ 293.75$ |
| Resident |  |  |  |
| N.E. | $\$ 1,455.00$ | $\$ 727.50$ | $\$ 60.63$ |

Fees:

| General Fee | $\$ 9,298.00$ | $\$ 4,649.00$ | $\$ 387.42$ |
| :--- | :--- | :--- | :--- |
| Student | $\$ 72.00$ | $\$ 36.00$ | $\$ 3.00$ |
| Activity Fee |  |  |  |
| Student | $\$ 310.00$ | $\$ 155.00$ | $\$ 12.92$ |

Health
Services Fee
Capital $\quad \$ 636.00 \quad \$ 318.00 \quad \$ 26.50$

Improvement
Fee
Total Fees $\$ 10,316.00$ \$5,158.00 \$429.84
Residence
Halls:
Residence
Hall Fee
Chandler \$8,398.00 \$4,199.00
Village
Dowden Hall \$8,098.00 \$4,049.00

| Single (Additional charge) | \$600.00 | \$300.00 |
| :---: | :---: | :---: |
| Wasylean <br> Hall | \$8,898.00 | \$4,449.00 |
| Sheehan Hall | \$8,698.00 | \$4,349.00 |
| Residence <br> Activity Fee | \$50.00 | \$25.00 |
| Technology <br> and <br> Equipment <br> Fee | \$220.00 | \$110.00 |
| Board Plans |  |  |
| Bronze 90 <br> Sem/350 <br> Dining <br> Dollars | \$4,206.00 | \$2,103.00 |
| Silver 150 <br> Sem/200 <br> Dining <br> Dollars | \$4,378.00 | \$2,189.00 |
| Gold 200 <br> Sem/150 <br> Dining <br> Dollars | \$4,412.00 | \$2,206.00 |
| Platinum <br> 280 <br> Sem/100 <br> Dining <br> Dollars | \$4,456.00 | \$2,228.00 |
| Grand 250 <br> Sem/400 <br> Dining <br> Dollars | \$4,630.00 | \$2,315.00 |
| Damage <br> Deposit (1st <br> Semester) |  | \$100.00 |
| Other. |  |  |
| Health Insurance | \$3,779.00 | na |
| Orientation Fee (New Students) | \$75.00 | na |
| Commuter Meal Plan | $\text { \| } \$ 300.00$ | \$150.00 |
| International <br> Student Fee <br> Fall/Spring | \$500.00 | \$250.00 |

International
\$125.00
Student Fee-
Summer
Division of Graduate and Continuing Education

| Annual | Per <br> Semester | Per Cr. <br> Hour |
| :---: | :---: | :---: |
| Tuition: |  |  |
| Undergraduate ${ }^{2}$ |  | \$130.00 |
| Graduate |  | \$169.00 |
| Fees: |  |  |
| Adminstrative Fee |  |  |
| Undergraduate |  | \$143.00 |
| Graduate |  | \$143.00 |
| Capital Improvement Fee |  | \$26.50 |

Other:

| Student Teaching |  | \$75.00 per course |  |
| :---: | :---: | :---: | :---: |
| Lab Instruction |  | $\$ 90.00$ <br> per <br> course |  |
| Art Model Fee |  | \$25.00 <br> per <br> course |  |
| Applied Music Fee |  | \$260.00 <br> per <br> course |  |
| Application Fee |  | $\$ 50.00$ per item |  |
| Transcript Fee |  | $\begin{aligned} & \$ 10.00 \\ & \text { per item } \end{aligned}$ |  |
| Field Work Supervision |  |  | \$15.00 |
| Internship |  |  | \$15.00 |
| International Student Fee-Fall/ Spring | $\$ 500$ | \$250 |  |
| International <br> Student Fee- <br> Summer |  | \$125 |  |
| ${ }^{1}$ Undergraduate D F, 8 a.m. - 4 p.m. | divisio | urses a | ffered |

${ }^{2}$ Undergraduate courses in the Division of Continuing Education begin at 4 p.m. M-F, Sat/Sun, and on-line

## Tuition Surcharge

Students enrolled in credits that result in course registration in excess of $118 \%$ of academic degree program requirements will be assessed a tuition surcharge. These students are required to pay a surcharge of $\$ 235$ per credit hour in excess of the $118 \%$ limit. Transfer and continuing education credits are not included in total credit hour when determining who will be assessed the surcharge.

## Undergraduate Statesupported Programs

In addition to the non-refundable application fee of $\$ 50$ for Commonwealth residents, $\$ 50$ for nonresidents, students must upon acceptance pay a $\$ 75$ non-refundable tuition deposit that will be credited towards tuition upon matriculation and an orientation fee for $\$ 75$. Students are billed for all semester charges following completion of registration.

Payment may be made by check, money order, or credit card (MasterCard, Visa, Discover, American Express). If payment is made by check, the cancelled check will serve as the student's receipt. If a student remits payment with a check that is returned because of insufficient funds, he or she must make any future payments to Worcester State in the form of a certified check, bank check, or money order. A returned check fee of $\mathbf{\$ 2 5}$ will be imposed for each instance of a personal check in payment of any Worcester State charge that is returned not honored. Students will incur all collection fees if Worcester State must place their accounts with a collection agency and with the Commonwealth of Massachusetts for intercept of other State payments (tax refunds, etc.).

Monthly payment plans through external agencies are available for families who wish to avoid a large outlay of cash at the beginning of each semester. For further information, contact the Student Accounts office.

## Non-Payment Reinstatement Policy

Payment in full is required by the due date specified on the student bill. Students whose accounts are not paid in full will be subject to cancellation of class enrollment. Students who have not paid their bill in full will receive a non-payment registration hold. Further, if the account remains unpaid after the add/ drop period, the Blackboard access will be suspended until paid along with a $\$ 75.00$ reinstatement fee.

If after the suspension period, the account remains unpaid, the entire student schedule will be deleted and reinstatement into those courses will not be allowed.

Tuition and fees are subject to change by vote of the Legislature, Department of Higher Education, or Board of Trustees.

## Financial Aid

## General Information

All students are encouraged to apply for financial aid to help them meet their educational costs. To receive financial assistance from the University, students must be enrolled in a degree-granting or federallyapproved certification program at Worcester State University. Second-degree students are eligible for Federal Loans and graduate students are eligible for Federal Loans and Federal Work Study funds. Applicants must also meet all Federal eligibility requirements and must be in good academic standing.

Financial aid is awarded to students with demonstrated financial need. Need is the difference between the total cost of college attendance (including reasonable costs for room, board, books, transportation, and other personal expenses) and the expected family contribution. Non-need based financial aid is available through several loan programs.

Complete information on financial aid programs, application procedures, and the award process is available on the Financial Aid Office website at http://www.worcester.edu/financialaid. Applicants to the University, current students, and their families should feel free to contact the Financial Aid Office at 508-929-8056.

## Academic Scholarships for Returning Students

Donor funded academic scholarships are available to undergraduate students at Worcester State University who take the initiative to apply and meet the eligibility criteria. These scholarships are available to a wide variety of class years, majors, backgrounds, and interests, as well as varying levels of academic success and financial need. Applications are accepted annually shortly after January 1st, until April 15th. Students are required to apply online. Details are available at http:// www.worcester.edu/scholarships.

## Application Process

All students applying for financial aid must complete and submit a Free Application for Federal Student Aid (FAFSA). Priority for financial aid is given to students who comply with the deadlines (p.98) listed in this catalog. Please note that funding from the Federal Pell Grant and Federal Direct Loan programs is available to all late applicants who qualify.

All applicants are encouraged to apply for any scholarship assistance awarded by the state in which they legally reside. Students are urged to contact the appropriate agency in their home state for further information.

Financial aid is not automatically renewable. A new application for financial aid must be submitted for each academic year.

## Federal Grants and Benefits

## Federal Pell Grant

The Federal Pell Grant is available to undergraduate students enrolled in a degree program who do not already have a bachelor's degree. For the 2023-2024 academic year, Pell Grants range from $\$ 757$ to $\$ 7,395$. All eligible students will receive the Federal Pell Grant amount to which they are entitled.

## Federal Supplemental Educational Opportunity Grant

The Federal Supplemental Educational Opportunity Grant (FSEOG) is a federal grant administered by the University. These Grants are limited to undergraduate students who do not already have a bachelor's
degree. Priority is given to students with exceptional need who are also Pell Grant recipients. SEOG awards are determined by the Financial Aid Office.

## TEACH Grant

The TEACH Grant Program provides grants to students who are completing or plan to complete course work needed to begin a career in teaching. As a condition for receiving a TEACH Grant, students must sign a TEACH Grant Agreement to Serve in which they agree to (among other requirements) teach:

- in a high-need field;
- at an elementary school, secondary school, or educational service agency that serves students from low-income families; and
- for at least four complete academic years within eight years after completing (or ceasing enrollment in) the course of study for which the grant was received

The eligible undergraduate programs are Early Childhood Education, Elementary Education, and Middle \& Secondary Education.

The eligible graduate programs are English as a Second Language, Reading Specialist, and Moderate Disabilities.

If students do not meet the requirements of the service obligation, all TEACH Grants received will be converted to Direct Unsubsidized Loans. Students must repay these loans in full, with interest.

## Veterans Benefits

The Department of Veterans Affairs and the Massachusetts State Approving Agency has approved Worcester State University for the purpose of certifying Veterans Educational Benefits. Questions concerning veteran's benefits should be directed to the Office of the Registrar.

## Financial Aid Application Deadlines

## March 1

- priority date for students starting in the Fall to complete the Free Application for Federal Student Aid (FAFSA). All students who wish to be considered for financial aid, must file the FAFSA


## May 1

- priority date for returning students to complete the Free Application for Federal Student Aid (FAFSA). All students who wish to be considered for financial aid, must file the FAFSA
- deadline for applying for the MASSGrant using the the Free Application for Federal Student Aid (FAFSA)
- late applications will be considered subject to the availability of funds


## November 1

- deadline for on-time consideration for financial aid for students entering in the upcoming Spring


## Grants and Waivers for Massachusetts Residents

## MassGrant Program

The MASSGrant Program is administered and awards are made by the Office of Student Financial Assistance under the MA Department of Higher Education. Scholarship eligibility is verified by the Financial Aid Office. For the 2023-2024 academic year, scholarship awards at Worcester State University range from $\$ 1200$ to $\$ 2,800$. Application is made by completing the FAFSA. Massachusetts residents applying for financial aid who will enroll full-time must apply for MASSGrant by May 1, 2023. MASSGrant eligibility is limited to eight semesters.

## Worcester State University Need-Based Tuition Waiver and Massachusetts Cash Grant Program

Full and partial need-based tuition waivers are awarded to selected students who demonstrate financial need and who are:

- undergraduate students
- in good academic standing
- legal residents of Massachusetts.

Waivers may not exceed a semester's tuition charge and other waivers and/or tuition remissions for which a student is eligible will be deducted from the tuition
charged before the need-based tuition waiver amount is determined. Award amounts are determined by the Financial Aid Office.

Massachusetts Cash Grant is awarded based on need and cannot exceed tuition and fees. Award amounts are determined by the Financial Aid Office.

## Categorical Tuition Waivers

Worcester State University students may be considered for tuition waivers based on the following designations (contact the Bursar about providing documentation of eligibility):

Veterans Tuition Waiver: As provided in M.G.L. ch. 4 s.7, cl. 43 as amended by the Acts of 2005, ch. 130 . Please contact Worcester State University, Office of the Registrar, for further details, qualifications, and information.

Native American Tuition Waiver: Available and certified by the Bureau of Indian Affairs.

Senior Citizen Tuition Waiver. Available for persons over the age of 60 .

Armed Forces Tuition Waiver. Available for an active member of the Armed Forces including Army, Navy, Air Force, or Coast Guard stationed and residing in Massachusetts.

Clients of the Massachusetts Rehabilitation Commission or Commission for the Blind: Available as certified by the respective commission.

## Other Tuition Waivers

John and Abigail Adams Scholarship Program: Awards non-need-based state-supported undergraduate tuition waivers to students who are awarded John and Abigail Adams Scholarship by the Department of Education. Completion of a FAFSA, continuous full-time enrollment at a state college or university, and a 3.0 are required.

Mass Transfer Program: Available to students who have completed an associate degree at a public community college under the Mass Transfer Program. The waiver is equal to $100 \%$ of the resident tuition rate at Worcester State University for the two years of a student's enrollment immediately following their community college enrollment. A 3.0 GPA is required for renewal of the waiver.


#### Abstract

Department of Social Services Adopted Children Tuition Waiver. This tuition waiver encompasses $100 \%$ of tuition for state-supported courses at all of the Massachusetts public institutions of higher education, excluding graduate courses. Eligible students include all students in the custody of the Department of Social Services adopted by eligible Massachusetts' residents through the Department of Social Services. Students must be twenty-four (24) or under. The Department of Social Services will provide certification of eligibility for the waiver; please contact them for further information.


Department of Social Services Foster Care Tuition Waiver: This tuition waiver encompasses 100\% of tuition for state-supported courses at all of the Massachusetts public institutions of higher education, excluding graduate course. Eligible students include all students in the custody of the Department of Social Services placed in foster care with eligible Massachusetts' residents through the Department of Social Services. Students must be twenty-four (24) or under. The Department of Social Services will provide certification of eligibility for the waiver; please contact them for further information.

## Massachusetts National Guard

Scholarships: Members of the Massachusetts Air Force National Guard and Massachusetts Army National Guard may be eligible for the Tuition and Fee Reimbursement Program. Members must provide a Certificate of Eligibility to the Bursar's Office. All certificates must be turned in prior to attending classes. Army personnel should contact the Education Service Office or Worcester State University, Office of the Registrar, for more information.

State Employees' Tuition Remission: State Employees and their dependents that elect to take courses at Worcester State University may have some or all of their tuition waived. Documentation of eligibility should be submitted to the Bursar's Office. Eligible persons should contact the Personnel Office at their place of employment for further details.

## Army/Navy and Marine/Air Force ROTC Scholarship

Programs: The ROTC Scholarship is designed to offer financial assistance to outstanding students in the four year programs. Normally, the award is made prior to the student's first-year of college; however, a student may enter the program in their first-year. Recipients are required to serve on active
duty in the branch of the Service they have elected for a period of four years, and then in the active reserve. For the latest information about scholarship opportunities, please contact College of the Holy Cross for Navy and Marine (NROTC) Reserve Officers Training Corps programs or Worcester Polytechnic Institution for Air Force (AROTC) and Army (ROTC) Reserves Officers Training Corps programs.

## Merit Scholarships for Entering Students

Worcester State University recognizes superior academic achievement by awarding a number of academic scholarships to incoming first-year and transfer students. Merit Scholarships can provide up to full in-state tuition and fees and are awarded for a full academic year. They are renewable for fulltime students who maintain specific requirements as outlined in the scholarship award letter. Applying for admission to WSU automatically constitutes consideration for these scholarships. No additional application is required. A limited number of merit scholarships are available and students must meet minimum academic standards in order to be eligible. Meeting minimum academic standards does not guarantee the awarding of a merit scholarship. Additional factors beyond a student's GPA and SAT scores are considered in the selection process.

## Satisfactory Academic Progress Policy

The U.S. Department of Education requires that all students receiving Title IV financial aid maintain Satisfactory Academic Progress (SAP). To assure this goal is met, the U.S.
Department of Education requires colleges to determine whether financial aid is being utilized in the most effective way. It is the responsibility of the Financial Aid Office at Worcester State University to monitor each financial aid applicant's academic work and to confirm the student's academic success and continued financial aid eligibility or to determine if a student is not academically progressing toward the goal of degree attainment. This also includes credits not paid for by financial aid.

Requirements: As part of the qualitative measurement of SAP, a student must have a cumulative Grade Point Average (GPA) of at least
2.00 (grade of C) when they have attempted sixty or more credits. As part of the quantitative measurement of SAP, the maximum number of credits a student may complete and still remain in good standing for financial aid is 180 (one and a half times the number of credits required for graduation). The following are additional qualitative and quantitative requirements for maintaining SAP.

- Students who have attempted 1-15 credits, must maintain a cumulative GPA of at least a 1.00 and have satisfactorily completed at least $66.67 \%$ of their credits.
- Students who have attempted 16-29 credits, must maintain a cumulative GPA of at least a 1.50 and have satisfactorily completed at least $66.67 \%$ of their credits.
- Students who have attempted 30-59 credits, must maintain a cumulative GPA of at least a 1.75 and have satisfactorily completed at least $66.67 \%$ of their credits.
- Students who have attempted 60-180 credits, must maintain a cumulative GPA of at least a 2.00 and have satisfactorily completed at least $66.67 \%$ of their credits.

Please note: All courses attempted with earned grades of $A, B, C, D$, and $E$ are included in the GPA calculation. Additionally, transfer credits accepted by Worcester State University and dual enrollment coursework taken at Worcester State University are included in the calculation for Satisfactory Academic Progress.

If a student does not meet the minimum requirements for Satisfactory Academic Progress, the student is notified that they are no longer eligible for financial aid. The Financial Aid Office sends the student a letter informing the student of the unsatisfactory academic progress. The letter includes the grade point average and completion percentage that the student earned which made them ineligible. The letter also includes details on how the eligibility was calculated, requirements for the student to regain good standing, and information about the appeal process.

A student may submit an appeal of unsatisfactory progress if there were extenuating circumstances that prevented the student from succeeding. The appeal requires explanation, possibly documentation of the extenuating circumstances, and an explanation
of what changes the student has made to succeed in future semesters. If the appeal is approved, the student may be required to contact the Academic Success Center for a degree audit. Within the degree audit, the Academic Success Center reviews the student's progress and sets up a plan for the student to graduate. The plan is sent to the student in writing. Upon completion of the Academic Success Center degree audit, the student is eligible for aid during the current semester and may continue eligibility if the student earns a minimum of 2.0 for each semester and completes at least $66.67 \%$ of the credits attempted each semester. All students with approved appeals are monitored at the end of each semester. If a student loses eligibility after a semester, the student must regain overall good standing to be eligible for aid.

- Graduate students are making Satisfactory Academic Progress for financial aid as long as they are in good standing in their graduate program.
- Incomplete grades count as attempted but not completed.
- If a student withdraws from a course after the add/drop period, the course will be counted as attempted but not completed.
- A student may repeat a course twice in which a low grade was earned and still have that course counted in the semester load and the higher grade replaces the lower grade which may improve a student's GPA.
- If a student drops a course during the add/ drop period, the course will not be counted as attempted.

This policy is applied consistently to all students at Worcester State University. Satisfactory Academic Progress is measured at the end of each academic year.

## Sources of Financial Aid

Worcester State University has numerous financial aid programs available to assist students in meeting college costs. Funding for these programs comes from federal, state, institutional and private sources. Types of programs include grants, scholarships, waivers, loans, and employment. Please go to https://www.worcester.edu/Sources-of-Financial-Aid/ for more information.

## Student and Parent Loans Federal Direct Loans

The Federal Direct Loan Program is a federal loan program designed to help a student pay expenses at institutions of post-secondary education. All Federal Direct Loan applicants must demonstrate financial need in order to qualify for a subsidized loan. A student with no need or partial need may be eligible for an unsubsidized loan. A Free Application for Federal Student Aid (FAFSA) must be completed before a Federal Subsidized and/or Unsubsidized Direct Loan can be processed. The interest rate for Federal Direct Loans is variable but will not exceed 8.25\%. The interest rate is adjusted each year on July 1. The repayment period for Federal Direct Loans begins six months after the student/borrower is graduated, ceases to be at least a half-time student or withdraws from school.

## - Dependent/Independent undergraduates

 can receive subsidized Direct Loans up to: 1) Students who have completed 1-29 credit hours of study are eligible for $\$ 3,500,2$ ) Students who have completed 30-59 credit hours of study are eligible for $\$ 4,500,3$ ) Students who have completed 60 or more credit hours of study are eligible for $\$ 5,500$. Also, all students are eligible for up to $\$ 2,000$ in additional unsubsidized Direct Loans.- Independent students and dependent students whose parents are unable to obtain a PLUS loan can borrow additional amounts from the Unsubsidized Federal Direct Loan Program, in the amount of $\$ 4,000$ for their first and second years of study and $\$ 5,000$ for their third and fourth year.
- Graduate students can borrow up to $\$ 20,500$ from the Unsubsidized Federal Direct Loan Program if their cost of education warrants these amounts.

Direct Loan borrowers should go to https:// studentaid.gov/ for specific information on repayment, deferment, cancellation and default provisions.

## Federal Parent Loan to Undergraduate students (PLUS)

This loan enables parents of dependent undergraduates to borrow for their dependent's education. A FAFSA is required to receive a Federal Plus Loan. Repayment of this loan begins within 60 days of the date that the loan is disbursed. However, parents may apply for a deferment through their servicer. The interest rate is variable, adjusted annually, not to exceed $9 \%$. Parents may borrow up to the cost of attendance annually, less any financial aid awarded to the student. Parents can apply for PLUS loans and get specific information on repayment, deferment, cancellation and default provisions at https://studentaid.gov/plus-app/parent/landing

## Private Education Loans

Private education loans may be available to assist students who have received the maximum financial aid award(s) allowed through grants, workstudy, and loans but still have remaining University expenses.

Students may search online for more information regarding private education options.

## Student Employment

## Federal Work-Study Program

The Federal Work-Study Program (FWS) is a needbased program that provides federally subsidized employment opportunities on campus for enrolled students. A student's financial aid offer letter indicates the FWS award and maximum earnings limit, typically $\$ 2,000$, depending on availability of funds and individual need. Students are paid only for hours actually worked. The FWS wage rate is variable depending on placement. FWS earnings are not applied directly to the student's tuition account without the student's written consent. These earnings are paid directly to the student. Students employed under the FWS Program are not eligible for unemployment compensation benefits or worker's compensation for on-the-job accidents. Students are encouraged to participate in employment that complements and reinforces their educational goals.

## Other On-Campus Employment

Some departments on campus offer part-time jobs to students. View Worcester State's "Employment Opportunities" page for available jobs (see the
"Student" section). Students are encouraged to view their financial aid offer letter to see if they qualify for FWS funding before applying for these non-FWS jobs.

## Tuition Payment Plan

Worcester State University offers an interestfree payment plan administered through Nelnet. Payments start before a semester begins, so please apply early. You may contact Nelnet directly at 800-609-8056 or sign up online at https:// mycollegepaymentplan.com/wsu/.

## Academic Calendar

FALL 2023 ACADEMIC CALENDAR

| September |  |
| :---: | :---: |
| 4 | Labor Day: NO CLASSES |
| 5 | Pre-College Conference and Academic Convocation |
| 6 | Classes begin: day, evening, graduate |
| 12 | Last day to add day courses (statesupported) |
| 19 | Last day to drop day courses (statesupported) |
| 19 | Last day to add/drop evening/graduate courses (non state-supported) |
| 26 | Unity Day: University Activities |
| October |  |
| 9 | Indigenous Peoples' Day: NO CLASSES |
| 11 | Last day to makeup Incomplete grades from Spring/Summer 2023 |
| 23 | Last day to declare/change major/minor |
| 24 | Failure warnings due in the Registrar's Office |
| 26 | Failure warnings issued to students |
| November |  |
| 10/30-11/13 | Advising for Pre-registration |
| 1 | Last day to withdraw from courses/school |
| 8 | Last day to elect Pass/Fail option |
| 10 | Veterans' Day Observed: NO CLASSES |
| 14-17 | Pre-registration for Spring 2024 |
| 22-25 | Thanksgiving Recess |
| December |  |
| 1 | Student evaluation of the faculty due |
| 8 | All classes end |
| 11 | Reading Day |
| 12 | Professional Development Day |
| 13-21 | Final Exams |


| 22 | Make-up day for exams postponed due to <br> inclement weather |
| :--- | :--- |
| 22 | Semester ends |
| 29 | Final grades for Fall 2023 due to Registrar's <br> Office |

Fall 2023 Examination Schedule

| Class Day and Time | Examination Day and Time |
| :---: | :---: |
| MWF 8:00/8:30AM | Wednesday December 13, 8:30AM |
| MWF 9:30AM | Friday December 15, 8:30AM |
| MWF 10:30AM | Monday December 18, 8:30AM |
| MW/MWF 11:30AM | Wednesday December 13, 12:30PM |
| MW/MWF 12:30PM | Friday December 15, 12:30PM |
| MW/MWF 1:30/2:00PM | Monday December 18, 12:30PM |
| MW 3:30PM | Wednesday December 20, 8:30AM |
| F 11:30/12:30/1:30PM | Wednesday December 20, 12:30PM |
| TR 8:30AM | Thursday December 14, 8:30AM |
| TR 10:00AM | Tuesday December 19, 8:30AM |

TR 11:30AM Thursday December 14, 12:30PM

| TR 1:00PM | Tuesday December 19, |
| :--- | :--- |
|  | $12: 30 \mathrm{PM}$ |


| TR/T 2:30PM | Thursday December 21, |
| :--- | :--- |
|  | $8: 30 \mathrm{AM}$ |
| R 2:30PM | Thursday December 21, |
|  | $12: 30 \mathrm{PM}$ |

Continuing Education (evening) and Graduate Courses may have a final exam at the same day and time slot of their regularly scheduled class during the first week of the Final Exam period. See course syllabus for details.

## WINTER 2024 ACADEMIC CALENDAR

October 11- Wintersession 2024 Registration December 25

| Tuesday, <br> December 26 | Classes Begin |
| :--- | :--- |
| Friday, | Deadline to add or drop Wintersession |
| December 29 | Classes |
| Friday, | Deadline to withdraw or request Pass/Fail |
| January 5 | grading |
| Monday, | Last day of classes |
| January 15 |  |
| January 22 | Final Grades due for Winter Session 2024 |

## SPRING 2024 ACADEMIC CALENDAR

| January |  |
| :--- | :--- |
| 15 | Martin Luther King Day: NO CLASSES |
| 16 | Classes begin: day, evening, graduate <br> Last day to add day courses (state- <br> supported) |
| 29 | Last day to drop day courses (state- <br> supported) <br> Last day to add/drop evening, graduate <br> courses (non state-supported) |
| 29 | President's Day: NO CLASSES |
| February | Last day to make up Incompletes from Fall |
| 19 | Last day to declare/change major or minor |
| 27 | Fpring Break: NO CLASSES |
| Office warnings due in the Registrar's |  |


| 17 | Graduate Commencement |
| :--- | :--- |
| 18 | Undergraduate Commencement and end of <br> semester |
| 24 | Final Grades for Spring 2024 due to <br> Registrar's Office |

## Spring 2024 Examination Schedule

| Class Day and Time | Examination Day and Time |
| :---: | :---: |
| MWF 8:00/8:30AM | Friday May 10, 8:30AM |
| MWF 9:30AM | Monday May 13, 8:30AM |
| MWF 10:30AM | Wednesday May 15, 8:30AM |
| MW/MWF 11:30AM | Friday May 10, 12:30PM |
| MW/MWF 12:30PM | Monday May 13, 12:30PM |
| MW/MWF 1:30/2:00PM | Wednesday May 15 , 12:30PM |
| MW 3:30PM | Friday May 17, 8:30AM |
| F 11:30/12:30/1:30PM | Friday May 17, 12:30PM |
| TR 8:00/8:30AM | Thursday May 9, 8:30AM |
| TR 10:00AM | Tuesday May 14, 8:30AM |
| TR 11:30AM | Thursday May 9, 12:30PM |
| TR 1:00PM | Tuesday May 14, 12:30PM |
| TR/T 2:30PM | Thursday May 16, 8:30AM |
| R 2:30PM | Thursday May 16, 12:30PM |
|  | Continuing Education (evening) and Graduate Courses may have a final exam at the same day and time slot of their regularly scheduled class during the first week of the Final Exam period. See course syllabus for details. |

## SUMMER 2024 ACADEMIC CALENDAR

| March |  |
| :--- | :--- |
| 5 | Summer Registration Begins |
| May |  |
| 16 | Older Student Registration |
| 20 | Full Summer and Summer Session I Begins |


| 27 | Memorial Day: NO CLASSES/UNIVERSITY CLOSED |
| :---: | :---: |
| 28 | Last day to Add/Drop (Summer I) - 100\% online graduate programs do not have an "add" option |
| June |  |
| 3 | Last day to Add/Drop (Full Summer) |
| 7 | Last day to Withdraw (Summer I) |
| 7 | Last day to request Pass/Fail (Summer I) |
| 19 | Juneteenth Holiday Observed: NO CLASSES-UNIVERSITY CLOSED |
| 30 | Registration shuts down at 11:30 a.m. then restarts on July 1 |
| July |  |
| 7 | Summer Session I Ends |
| 8-12 | Full Summer Break (14 week classes) NO CLASSES |
| 11 | Older Student Registration for Summer II |
| 15 | Summer Session I Grades Due |
| 15 | Summer Session II Begins |
| 19 | Last Day to Withdraw (Full Summer) |
| 23 | Last day to Add/Drop (Summer II) - 100\% online graduate programs do not have an "add" option |
| 26 | Last day to request Pass/Fail (Full Summer) |
| August |  |
| 2 | Last day to Withdraw (Summer II) |
| 2 | Last day to request Pass/Fail (Summer II) |
| September |  |
| 1 | Summer Session II Ends |
| 1 | Full Summer Session (14 week) Ends |
| 9 | Summer II and Full Summer grades due |

## Important Notes:

Students must visit Self Service to view course schedules and for their final grades. Schedules and grades will not be mailed.

## Office of Academic Affairs

Dr. Lois A. Wims<br>Provost and Vice President for Academic Affairs<br>Dr. Henry Theriault<br>Associate Vice President for Academic Affairs<br>Dr. Roberta Kyle<br>Associate Vice President for Continuing Education and Dean of Graduate Studies

Dr. Anthony K. Adade
Associate Vice President and Chief Information Officer

Dr. Linda S. Larrivee
Dean of the School of Science, Technology, and Health

Dr. Russ Pottle
Dean of the School of Humanities and Social Sciences

Dr. Raynold M. Lewis
Dean of Education, Liberal and Interdisciplinary Studies

Mary Jo Marion
Associate Vice President for University and Community Engagement

Laxmi Bissoondial
Director of Multicultural Affairs and Alternatives for Individual Development

## Matt Bejune

Executive Director of Library
Dr. Meghna Dilip
Director of Commonwealth Honors Program
Dr. Noah M. Dion
Director of Academic Support Services

## Library

The Library (http://www.worcester.edu/Library) is the intellectual heart of Worcester State University, a place where members of the campus community converge, collaborate, learn, and discover. Library staff assist users at the research help desk, the circulation desk, and by phone, email, and online chat. Library staff provide classroom instruction on information literacy and research skills helping students understand the contours and the changing dynamics of the world of information.

The Library, located on the 2nd and 3rd floors of the Learning Resource Center, is open over 100 hours per week during the fall and spring semesters. Users will find a variety of spaces to meet their needs including collaborative areas with large, flat-screen displays, individual carrels for independent study, tables with ample space to spread out, lounge chairs with built-in desks, and comfortable café seating.

Print collections include more than 130,000 books, 200 journals, magazines, and newspapers, and 3,000 multimedia materials. Electronic collections include over 250,000 e-books, 90,000 e-journals, and a diversified selection of 350+ databases from EBSCO, Gale, ProQuest, and other authoritative publishers. Remote access to electronic materials is available $24 / 7 / 365$. The WSU Archives and Special Collections features more than 200 linear feet of materials related to Worcester State University history, more than 400 rare books, and the papers of poet and activist, Dennis Brutus.

Library users may request items from other libraries via Interlibrary Loan. Moreover, Library users may borrow items at area libraries as a result of the WSU Library being a member of multiple networks including the Higher Education Libraries of Massachusetts https://libraries.flo.org/HELMPublic, a consortium of Massachusetts public higher education institutions, and the Academic and Research Collaborative, http://www.worcesterarc.org, a coalition of Worcester area libraries.

## Lt. Col. James F. Sheehan '55 Honors Program

The Commonwealth Honors Program at Worcester State University is designed to challenge and transform students through diverse and demanding coursework, experiences, and service learning, enabling them to grow as well-rounded scholars and engaged citizens. It builds strong community ties to sustain the intellectual and social development of its participants and to enhance the life of the University. The program is part of the Massachusetts Commonwealth Honors Program and a member of the National Collegiate Honors Council. Students with a GPA of 3.5 or higher are encouraged to contact the director for information regarding entrance into the program. Students who complete an independent research project and present it in a public forum earn the additional Commonwealth Honors Scholar designation.

## Requirements

Program requirements include maintaining an overall GPA of 3.2, completing 21 credits in honors courses, and attendance at a minimum of two approved cocurricular activities per semester.

Freshman Students (by invitation
only)

| Code | Title | Credits |
| :---: | :---: | :---: |
| Freshman Year |  | 6 |
| XX-193-H | Honors First Year Seminar |  |
| EN-202 | Honors Composition |  |
| Sophomore Year |  | 3 |
| H0-2XX-1 | Honors Interdisciplinary Seminar |  |
| Sophomore, Junior, or Senior Year |  | 12 |
| 4 Other Honors-designated Courses |  |  |
| Total Credits |  | 21 |

## Students Entering as Sophomores, Juniors, and Seniors (by invitation only)

| Code | Title | Credits |
| :--- | :--- | ---: |
| HO-2XX-1 | Honors Interdisciplinary | 3 |
|  | Seminar |  |

5 Other Honors-designated Courses 15

Total Credits

Honors students may take up to two world language courses as honors, may transfer up to two courses taken abroad as honors, and may transfer up to two honors courses with a grade of $B$ or better taken at other Commonwealth Honors Program approved universities or colleges. Courses will be counted as honors only if students achieve a grade of B or above in the class. Honors courses may also fulfill general education (LASC) or major/minor requirements. Honors courses may be all-honors sections or regular course sections with "embedded" honors seats. Students entering as Sophomores, Juniors, and Seniors are not required to take the Honors First Year Seminar.

The Worcester State University Lt. Col. James F. Sheehan '55 Honors Program draws its faculty from multiple disciplines across campus. Each faculty member's information can be found at the respective department for each of the courses. For more information on the Honors Program, please contact the Honors Program Director at honors@worcester.edu.

## Addictions Counseling Overview

Minor

This 18-credit interdisciplinary minor focuses on the basic competencies associated with helping people recover from substance use disorders. Courses are offered though the Department of Health Sciences, the Department of Criminal Justice, and the Department of Psychology and provide students with content knowledge in addictions counseling that map to core competencies outlined by the Massachusetts Department of Public Health's Bureau of Substance Abuse Services. Students may begin coursework in this minor at any point in their undergraduate education.

The minor is an excellent option for students in the following majors:

- Criminal Justice
- Psychology
- Health Sciences
- Nursing
- Occupational Therapy
- Sociology
- Urban Studies
- Liberal Studies

Students in this minor will:

- Gain knowledge of the factors and cultural implications leading to addiction.
- Understand the assessment, clinical evaluation, treatment planning and case management skills related to addictions counseling.
- Gain knowledge of patient, family and communication education issues related to addiction.
- Gain knowledge of coexisting issues related to addiction.

This minor can also be a pathway for matriculated students who first complete a minor to earn a Certificate in Addictions Counseling by completing one additional course, the Pre-Practicum Seminar in Addictions Counseling ( 3 credits) and the 300hour Practicum in Addictions Counseling ( 6 credits). Completing these additional requirements would earn the student a Certificate in Addictions Counseling which would then make it possible for the student to pursue state licensing (CADC) after completing 4,000 hours of supervised work in the field (if bachelor's degree is in a behavioral science major).

## Certificate

Available for matriculated and non-matriculated students, this 24 -credit certificate focuses on the basic competencies associated with helping people recover from substance abuse disorders. Courses are offered though the Department of Health Sciences, the Department of Criminal Justice and the Department of Psychology and provide students with content knowledge in addictions counseling that map to core competencies outlined by the Massachusetts Department of Public Health's Bureau of Substance Abuse Services (BSAS). Worcester State University has been recognized by the BSAS as an approved Addictions Education Provider. Completing the Certificate in Addictions Counseling makes it possible for the student to pursue state licensing (CADC) after completing 4,000 hours of supervised work in the field (if bachelor's degree is in a behavioral science major).

Student completing this certificate will:

- Gain knowledge of the factors and cultural implications leading to addiction.
- Understand the assessment, clinical evaluation, treatment planning and case management skills related to addictions counseling.
- Gain knowledge of patient, family and communication education issues related to addiction.
- Gain knowledge of coexisting issues related to addiction.
- Gain applied experiences though the practicum in working in an addictions counseling program.

The coordinator of the program will work with students and local substance abuse counseling centers in securing practicum placements.

## Programs

- Certificate in Addictions Counseling (p. 110)
- Minor in Addictions Counseling (p. 111)


## Faculty

As an interdisciplinary program, Addictions Counseling draws its core faculty from multiple disciplines across campus. Each faculty member's information can be found at the respective department for each of the courses. The Program Coordinator for Addictions Counseling is Dr. Robert Brooks.

## Courses

CJ-208 Systems of Addictions Treatment
Prerequisites: HE-285 or CJ-285
This course provides an overview of counseling modalities and techniques used in addiction treatment and recovery settings, including for those with co-occurring disorders. A family systems approach will be employed to understand how the Criminal Justice System, the Mental Health System, and the larger community relate. Legal and regulatory restrictions, ethical codes, and legal sanctions also are discussed.
Fall and Spring and every year. 3 Credits

## CJ-285 Drugs and Society

This course examines the history of alcohol and other mood changing drugs in the U.S, the myths and stereotypes of alcohol and drug use, sociocultural factors that contribute to the use of drugs, and the patterns and progression of substance use disorders. Every 2-3 years. 3 Credits

CJ-354 Addictions Counseling of Individuals and Families
LASC Categories: ICW
Prerequisites: HE-285 or CJ-285
This course provides students with an applied understanding of counseling skills, techniques, and strategies in addiction treatment. The psychology of addictions and various treatment modalities are discussed. Engagement, assessment, treatment planning, brief and ongoing treatment, continuing care, and work with special populations are considered. Dialectical behavior therapy, cognitivebehavioral, mindfulness practice techniques, and motivational interviewing concepts are introduced, and students apply them in role-playing scenarios. Boundaries, ethics, and counselor self-awareness are also covered.
Fall and Spring and every year. 3 Credits
CJ-406 The 12 Core Functions of Addictions
Counseling
Prerequisites: HE-285 or CJ-285 Take CJ-208 or HE-208; Take PS-270 or HE-270; Take CJ-354 or HE-354;
This culminating course prepares students to enter the field of substance use disorders and/or addictions counseling through an intensive review of the 12 Core Functions of Addictions Counseling. Students further develop the skill sets from prior coursework to serve as a foundation for gaining practical experience in addictions counseling. Fall and Spring and every year. 3 Credits

## CJ-407 Pre-Practicum Seminar in Addictions

## Counseling

Prerequisites: PS-101 Take HE-285 or CJ-285; Take HE-270 or PS-270; Take HE-208 or CJ-208; Take HE-354 or CJ-354;
Prerequisites or Corequisite: CJ-406 or HE-406
The course is designed for students who wish to complete the course Practicum in Addictions Counseling in pursuit of CADC licensure. Students are prepared for fieldwork through practice of counseling techniques, reviews of case studies, and study of counseling theories. All core functions of addictions counseling are reviewed and reinforced, with particular emphasis on assessment, counseling, and case management. Students practice in role play using a variety of modalities while considering the needs of special populations and the opportunities and constraints of various treatment settings. Ethical and legal considerations for addictions counselors are also explored. Open to Addictions Counseling Certificate
Fall and Spring and every year. 3 Credits

## CJ-409 Practicum in Addictions Counseling

Prerequisites: CJ-407 or HE-407
Field experience in which students complete 150 hours of direct care experience in a substance use disorders counseling setting. To qualify for CADC licensure, the practicum must be repeated for a total of 300 hours and 6 credits. Course may be repeated. Fall and Spring and every year. 3 Credits

HE-208 Systems of Addictions Treatment Prerequisites: HE-285 or CJ-285
This course provides an overview of counseling modalities and techniques used in addiction treatment and recovery settings, including for those with co-occurring disorders. A family systems approach will be employed to understand how the Criminal Justice System, the Mental Health System, and the larger community relate. Legal and regulatory restrictions, ethical codes, and legal sanctions also are discussed.
Fall and Spring and every year. 3 Credits
HE-270 Psychopharmacology
LASC Categories: NSP
Prerequisites: PS-101
This course will explore the effects of psychotropic drugs on the brain and subsequent effects on behavior.
Fall and Spring and every year. 3 Credits

## HE-285 Drugs and Society

Drug use and abuse, and implications for the individual and society. Fall only and every year. 3 Credits

HE-354 Addictions Counseling of Individuals and Families
LASC Categories: ICW
Prerequisites: HE-285 or CJ-285
This course provides students with an applied understanding of counseling skills, techniques, and strategies in addiction treatment. The psychology of addictions and various treatment modalities are discussed. Engagement, assessment, treatment planning, brief and ongoing treatment, continuing care, and work with special populations are considered. Dialectical behavior therapy, cognitivebehavioral, mindfulness practice techniques, and motivational interviewing concepts are introduced, and students apply them in role-playing scenarios. Boundaries, ethics, and counselor self-awareness are also covered.
Fall and Spring and every year. 3 Credits

## HE-406 The 12 Core Functions of Addictions Counseling

Prerequisites: 4 groups Take CJ-285 or HE-285; Take
CJ-208 or HE-208; Take HE-270 or PS-270; Take
CJ-354 or HE-354;
This culminating course prepares students to enter the field of substance use disorders and/or addictions counseling through an intensive review of the 12 Core Functions of Addictions Counseling. Students further develop the skill sets from prior coursework to serve as a foundation for gaining practical experience in addictions counseling. Fall and Spring and every year. 3 Credits

## HE-407 Pre-Practicum Seminar in Addictions Counseling

Prerequisites: PS-101 Take HE-285 or CJ-285; Take HE-270 or PS-270; Take HE-208 or CJ-208; Take HE-354 or CJ-354; \# Take HE-406 or CJ-406;
Prerequisites or Corequisite: HE-406 or CJ-406
The course is designed for students who wish to complete the course Practicum in Addictions Counseling in pursuit of CADC licensure. Students are prepared for fieldwork through practice of counseling techniques, reviews of case studies, and study of counseling theories. All core functions of addictions counseling are reviewed and reinforced, with particular emphasis on assessment, counseling, and case management. Students practice in role play using a variety of modalities while considering the needs of special populations and the opportunities and constraints of various treatment settings. Ethical and legal considerations for addictions counselors are also explored.
Fall and Spring and every year. 3 Credits
HE-409 Practicum in Addictions Counseling
Prerequisites: HE-407 or CJ-407
Field experience in which students complete 150 hours of direct care experience in a substance use disorders counseling setting. To qualify for CADC licensure, the practicum must be repeated for a total of 300 hours and 6 credits. Course may be repeated. Fall and Spring and every year. 3 Credits

## PS-101 General Psychology

LASC Categories: HBS
Introduction to history of psychology, scientific method, brain/nervous system, development, learning, motivation, sensation/perception, personality, psychopathology, psychotherapy, cognitive processes, social behavior.
Fall and Spring and every year. 3 Credits
PS-270 Psychopharmacology
LASC Categories: NSP
Prerequisites: PS-101 with a C- or above.
This course will explore the effects of psychotropic drugs on the brain and subsequent effects on behavior.
Other or on demand and every year. 3 Credits

Certificate in Addictions Counseling
Requirements

| Code | Title Credit |
| :---: | :---: |
| HE-285 | Drugs and Society |
| or CJ-285 | Drugs and Society |
| PS-270 | Psychopharmacology |
| or HE-270 | Psychopharmacology |
| HE-208 | Systems of Addictions |
|  | Treatment |
| or CJ-208 | Systems of Addictions Treatment |
| HE-354 | Addictions Counseling of Individuals and Families |
| or CJ-354 | Addictions Counseling of Individuals and Families |
| HE-406 | The 12 Core Functions of |
|  | Addictions Counseling |
| or CJ-406 | The 12 Core Functions of Addictions Counseling |
| HE-407 | Pre-Practicum Seminar in |
|  | Addictions Counseling |
| or CJ-407 | Pre-Practicum Seminar in Addictions Counseling |
| HE-409 | Practicum in Addictions |
|  | Counseling |
| or CJ-409 | Practicum in Addictions Counseling |
| CJ-409 | Practicum in Addictions |
|  | Counseling |
| or HE-409 | Practicum in Addictions Counseling |

Total Credits

Courses must be have a minimum grade of $C$ and must be taken at WSU. Credits cannot be earned through life experience portfolio.

After completing the practicum, and required supervised practical work experience (2000-6000 hours depending on highest degree earned), certificate students may apply for and take the state licensing exam for the LADC II.

## Admissions requirements:

- Online Application and \$30 Application Fee
- Student must have a high school diploma or GED
- Evidence of successful completion of PS-101 or its equivalent (official transcript)


# Minor in Addictions Counseling <br> Requirements 

| Code | Title | Credits |
| :--- | :--- | ---: |
| PS-101 | General Psychology 1,2 | 3 |
| HE-285 | Drugs and Society | 3 |
| or CJ-285 | Drugs and Society |  |
| PS-270 | Psychopharmacology <br> or HE-270 | Psychopharmacology |
| HE-208 | Systems of Addictions <br> Treatment | 3 |
| or CJ-208 | Systems of Addictions Treatment |  |
| HE-354 | Addictions Counseling of <br> Individuals and Families | 3 |
| or CJ-354 | Addictions Counseling of Individuals <br> and Families |  |
| HE-406 | The 12 Core Functions of | 3 |
| or CJ-406 | Addictions Counseling | The 12 Core Functions of Addictions <br> Counseling |

Total Credits
${ }^{1}$ Should be the first course in the minor. Can be transferred in and can also be CLEPed.
${ }^{2}$ Psychology majors who want to take the minor will need to take an additional Psychology elective (3 cr).

Courses (outside of PS 101) must have a minimum grade of C and must be taken at WSU and cannot be transferred in. Credits cannot be earned through life experience portfolio.

For more information about the Addictions Counseling Minor, please contact the Program Coordinator for Addictions Counseling, Dr. Robert Brooks, at rbrooks@worcester.edu.

## Forensic Science Minor

Forensic Science is an interdisciplinary academic area of study that draws from a wide range of disciplines including Biology, Biotechnology, Chemistry, Communication, Computer Science, Criminal Justice, and Psychology. The mission of the Forensic Science minor is to provide a quality educational experience that will enable students to reach the highest standards of academic excellence through a generalist perspective on the forensic sciences. The program will provide opportunities for
the analysis and application of knowledge through exposure to a wide variety of scientific disciplines and professional skill sets.

Requirements for a Forensic Science Minor: 19 credits

| Code | Title | Credits |
| :---: | :---: | :---: |
| Core Requirements |  | 10 |
| BT-101 | Introduction to Forensic Sciences |  |
| CJ-103 | Evidence Collection and Crime Scene Preservation |  |
| CJ-401 | Forensic Science Senior Seminar |  |
| Electives from Biotec <br> Computer Science, C approved by the FS | chnology, Chemistry, Criminal Justice or selection Director | 9 |
| CJ-211 | Victimology |  |
| CJ-305 | Principles of Evidence and Proof |  |
| PS-240 | Introduction to Abnormal Psychology |  |
| PS-315 | Physical and Sexual Abuse |  |
| PS-330 | Theories of Personality |  |
| CM-151 | Introduction to Digital Photography |  |
| CM-260 | Introduction to Video |  |
| Total Credits |  | 19 |

The Forensic Science Minor is an interdisciplinary program drawing from the faculty of multiple departments at Worcester State University.

- Nada AISallami, Assistant Professor (2019), B.Sc., M.Sc., Ph.D., University of Technology, Iraq

Mark H. Beaudry, Assistant Professor (2018), A.S. Mount Wachusett Community College; B.S.,M.S.Northeastern University; Ph.D., Capella University

Roger S. Greenwell, Co-Coordinator of the Biotechnology Program, Associate Professor (2014), B.S. Western Kentucky University; Ph.D. University of Wisconsin-Madison

Jennifer Hood-DeGrenier, Department Chair, Professor (2012), B.A. Williams College; Ph.D. Harvard University

Eihab Jaber, Professor (2006), B.A. Hunter College; M.S.,Ph.D. State University of New York Stony Brook

Maura Pavao, Professor (2001), B.S. Worcester Polytechnic Institute; M.S., Ph.D. Rutgers University

## BT-101 Introduction to Forensic Sciences

LASC Categories: NSP, HBS, LAB
Prerequisites: Math placement code of 3 or higher. Survey of forensic case studies and the laboratory techniques used to solve crimes including microscopy, chromatography, ballistics and DNA analysis.
Every year. 4 Credits
BT-240 Research Experience for Undergraduates Lab and/or field based research on a specific research topic under the supervision of a faculty member. Permission of instructor and department chair required.
Fall and Spring. 1-6 Credits

## BT-408 Directed Study: Biotechnology

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Other or on demand. 3 Credits

## BT-440 Advanced Research Experience

Prerequisites: BI-205. Instructor permission required. Junior/Senior standing required.
Advanced lab and/or field based research on a specific research topic under the supervision of a faculty member. Permission of instructor and department chair required.
Fall and Spring. 1-6 Credits

## BT-450 Internship in Biotechnology

Qualified upper-level biotechnology majors can learn experimental techniques by working in a company laboratory or a professional manufacturing environment. Permission of faculty sponsor and department chair required.
Fall and Spring. 3-6 Credits

## CH-250 Instrumental Technology for Forensic Analysis

LASC Categories: NSP, QAC, NLL
Prerequisites: $\mathrm{CH}-120$ and $\mathrm{CH}-121$, minimum grade C or take $\mathrm{CH}-112$, minimum grade C -
Introduction to instrumental techniques used to analyze crime scene evidence. Includes HPLC, IR spectrometry, Atomic spectroscopy, and GC-MS. Three lecture hours and three lab hours per week. Other or on demand. 4 Credits

## CH-408 Directed Study: Chemistry

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3-4 Credits
CH-480 Internship: Chemistry
Project completed at an institution other than Worcester State by a student with a non-Worcester State sponsor and Worcester State liaison. Every year. 1-6 Credits

## CJ-103 Evidence Collection and Crime Scene Preservation

Prerequisites: CJ-101. Forensic Science minors must take BT-101 as the prerequisite for this course. This course provides students with a theoretical framework for the practice of evidence collection and crime scene preservation. Various techniques and protocols for investigation will be reviewed and linked to methods of collection of physical evidence, as well as the interpretation, accountability and preservation of data. Techniques of documentation and case preparation will also be explored.
Every 2-3 years. 3 Credits

## CJ-211 Victimology

Prerequisites: CJ-101
Criminal-victim relationships, with emphasis on victim-precipitated crimes and compensation to the victims.
Every 2-3 years. 3 Credits

CJ-305 Principles of Evidence and Proof
Prerequisites: CJ-101 and CJ-205.
This course analyzes federal and state rules of evidence in criminal proceedings, focusing on the relationship between evidence and proof. The course also examines issues related to the collection and seizure of admissible physical evidence, the role of privileges, and the interrogation of the accused. Spring only and every 2-3 years. 3 Credits

## CJ-398 Criminal Justice Internship

Prerequisites: $\mathrm{CJ}-101$ and $\mathrm{CJ}-102$ and $\mathrm{CJ}-111$ and CJ-203
Criminal Justice internship involves student fieldbased work experience within selected agencies of the criminal justice system or allied helping agencies. This course is designed to provide students with an opportunity to translate theoretically oriented classroom principles into practical application. Fall and Spring and every year. 3-6 Credits

## CJ-399 Independent Study in Criminal Justice

 Individual research and independent study related to a particular aspect of criminal justice that is of special interest.Every year. 3-6 Credits
CJ-401 Forensic Science Senior Seminar
Prerequisites: BT-101 and CJ-103
The senior seminar is designed to bring together the diverse areas of knowledge that the student has gained in the area of forensic science. It is a synthesis of classroom knowledge applied to real world forensic science issues. Topics covered emphasize the use of critical thinking skills to analyze, integrate and synthesize research and case studies relevant to the forensic sciences.
Spring only and every year. 3 Credits

## CJ-408 Directed Study: Criminal Justice

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Other or on demand. 3 Credits

## CS-165 Digital Forensics

Prerequisites: CS-155
Digital forensics investigation; data acquisition; processing crime and incident scenes; multiple operating systems and file fomats; digital forensics tools, analysis and validation.
Every year. 3 Credits

CS-497 Selected Topics: Computer Science
Prerequisites: CS-282
Selection of topics of mutual interest to student and faculty.
Other or on demand. 1-6 Credits

## CS-498 Internship: Computer Science

Prerequisites: 21 credit hours in Computer Science courses including CS-282
Working in and for an organization where skills can be tested in real situations in order to gain experience, increase knowledge in various functional areas, and establish important contacts with an organization.
Every year. 3 Credits
CS-499 Independent Study: Computer Science
Prerequisites: 18 credit hours in Computer Science including CS-282.
An opportunity for advanced students to examine topics not normally taught in other mathematics or computer courses. Geared to the interests of both the student and the instructor.
Every year. 1-6 Credits

## PS-240 Introduction to Abnormal Psychology

LASC Categories: HBS
Prerequisites: PS-101. Psychology majors must pass with a C- or above. Credit will not be provided for both PS-240 and PS-335.
Etiology, dynamics and treatment of psychopathology and their relation to normal personality are considered from traditional and contemporary perspectives.
Fall and Spring and every year. 3 Credits

## PS-315 Physical and Sexual Abuse

Prerequisites: PS-101-General Psychology with
a C- or above. PS-240-Introduction to Abnormal Psychology with a C- or above or by permission of instructor for the Women's, Gender, and Sexuality Studies Minor.
Etiology, characteristics, consequence, treatment and prevention of various forms of physical, sexual and emotional abuse in children, adolescents and adults. Other or on demand and every 2-3 years. 3 Credits

## PS-330 Theories of Personality <br> LASC Categories: HBS

Prerequisites: PS 101-General Psychology and either PS 240-Introduction to Abnormal Psychology or PS 210-Developmenral Psychology. Psychology Majors require a C - or higher in each pre-requisite course.
A survey of major theories of personality. Why people think, feel, and behave as they do is explored through the different theories.
Fall only and every year. 3 Credits

## CM-151 Introduction to Digital Photography

LASC Categories: CA
Techniques and aesthetics of digital photography. Introduction to the operation of SLR digital cameras and the computer as digital darkroom.

Every year. 3 Credits

## CM-260 Introduction to Video

LASC Categories: CA
A beginning course in video program production, using lightweight and portable equipment.

Fall and Spring and every year. 3 Credits

## Journalism

The Journalism Minor provides students from all academic majors the opportunity to acquire essential skills of reporting, writing, and multimedia news production to become knowledgeable and effective journalists with marketable areas of expertise. Students minoring in journalism will come to recognize connections between different disciplines and the media and learn how to use knowledge and skills acquired in other coursework to identify, report on, and clearly explain newsworthy stories to an audience of non-specialists through a variety of media.

## Requirements for Journalism Minor

| Code | Title | Credits |
| :--- | :--- | ---: |
| Required Courses |  | 6 |
| JO-101 | Introduction to Journalism |  |
| JO-201 | Multimedia Journalism |  |
| Electives |  | 12 |
| CM-268 |  |  |


| CM-270 |  |
| :--- | :--- |
| CM-272 |  |
| CM-351 |  |
| CM-352 | Journalism: Practice and <br> Techniques |
| EN-266 | Journalism: Advanced <br> Newswriting |
| EN-268 | Journalism: Feature Writing |
| EN-269 | Journalism: Editing |
| EN-270 | Jewrnalism Workshop Reporting and Writing I |
| EN-271 | Writing for Digital <br> EN-272 |
| EN-275 | Advanced Practices in <br> Writing |
| EN-281 | Practicum in Journalism |
| EN-341 | Opinion Writing |
| EN-351 | EN-352 |

As an interdisciplinary program, the Journalism Minor draws its core faculty from multiple disciplines across campus. Each faculty member's information can be found at the respective department for each of the courses. The Program Coordinator for the Journalism Minor is Cleve Wiese, Ph.D. in the Department of English.

## Education, Liberal and Interdisciplinary Studies

## Dean

Dr. Raynold Lewis
Location
Sullivan Academic Center
Second Floor, Room S-226F

## Programs

- African and African Diaspora Studies (p. 116)
- Asian Studies
- Education (p. 118)
- Environmental and Sustainability Studies
- Ethnic Studies
- Global Studies
- Interdisciplinary Studies (p. 165)
- Liberal Studies
- Women's, Gender, and Sexuality Studies


## African and African Diaspora Studies Minor

## Requirements for the Minor in African and African Diaspora Studies (18 credits)

| Code | Title |
| :--- | ---: | Credits

African or African Diaspora History course (1
course)

| HI-221 | African-American History I |
| :--- | :--- |
| $\mathrm{HI}-222$ | African-American History II |
| $\mathrm{HI}-280$ | Introduction to African <br> Diaspora History |
| African History Course (1 course) |  |
| HI-278 | African History Before 1800 |
| HI-279 | African History Since 1800 <br> HI-375 |

Elective courses (3 courses)

| HI-213 | Colonial Latin America |
| :---: | :---: |
| HI-214 | Modern Latin America |
| HI-221 | African-American History I |
| HI-222 | African-American History II |
| HI-247 | Central America and the Caribbean |
| HI-248 | Seminar on Globalization \& Human Rights |
| HI-278 | African History Before 1800 |
| HI-279 | African History Since 1800 |
| HI-280 | Introduction to African Diaspora History |
| HI-373 | African Immigration in the 20th Century |
| HI-375 | Popular Music and Performance in Modern Africa |
| PO-265 | Racial and Ethnic Politics |
| SO-307 | Puerto Rican Diaspora |
| SO-320 | Sociology of Race and Ethnicity |
| MU-222 | African Drumming |
| EN-370 | Antislavery Literature |
| PH-178 | Africana Philosophy |


| GE-255 | Geography of Africa |
| :--- | :--- |
| AB-101 | Beginning Arabic I |
| AB-102 | Beginning Arabic II |
| AB-210 | Intermediate Arabic I |
| AB-211 | Intermediate Arabic II |
| FR-101 | Beginning French I |
| FR-102 | Beginning French II |
| FR-210 | Intermediate French I |
| FR-211 | Intermediate French II |
| SP-101 | Beginning Spanish I |
| SP-102 | Beginning Spanish II |
| SP-210 | Intermediate Spanish I |
| SP-211 | Intermediate Spanish II |
| Total Credits |  |

Students are encouraged but not required to study abroad in one of the many countries that make up Africa or the African diaspora, study an African language, or intern with an organization whose mission is to support people of African descent.

## Asian Studies Minor

The Asian Studies minor is a multi-disciplinary course of study through which students engage the history, politics, languages, cultures, and other aspects of Asian peoples, societies, and countries. In the program, students gain knowledge in core areas while exploring their own areas of interest.
At its core, the program provides students with the analytical tools to (a) evaluate Asian ways of experiencing and understanding the world, (b) develop a nuanced understanding of how "Asia" as a conceptual framework relates to specific geographical and historical realities, and (c) build a rigorous interdisciplinary and regional studies foundation for future work as global citizens and agents of social justice around the world.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Requirements |  | (18 |
|  |  | credits) |
| AS-101 | Introduction to Asian Studies | 3 |
| AS-401 | Practicum in Asian Studies | 3 |
| Four Elective Courses |  | 12 |
| At least one elect 300 level or high | tive course must be at the er |  |

At least two elective courses must be in
a different discipline from the other Asian
Studies courses

## Total Credits

- A maximum of two courses can be in the student's major, unless the Asian Studies Minor is part of a Liberal Studies Major.
- Students must take at least one course that has substantial historical content and at least one course with substantial content on philosophy/religion.
- Students are strongly encouraged to take courses in more than one geographical area (such as East Asia, Southeast Asia, South Asia, Central Asia).
- Students are strongly encouraged to take courses in an Asian language.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Asian Studies Elective Courses |  |  |
| HI-236 | Modern Far East History I | 3 |
| HI-237 | Modern Far East History II | 3 |
| HI-251 | Roots of China's Rise: Reform, Revolution and Reinvention | 3 |
| HI-255 | Faculty-Led Study Abroad: China Cultural Immersion | 3 |
| HI-318 | Ethnic Identities in China | 3 |
| HI-334 | Environmental Crisis and Management in China | 3 |
| HI-335 | Imperial Crossroads of Modern East Asia | 3 |
| HI-337 | Travels in Asia | 3 |
| PH-170 | Introduction to Asian Philosophy | 3 |
| PH-171 | Buddhist Philosophy | 3 |
| PH-172 | Chinese Philosophy | 3 |
| PH-276 |  | 3 |
| PO-221 | Asian Politics | 3 |

## Required Courses

## AS-101 Introduction to Asian Studies <br> LASC Categories: GP, DAC

Introduction to Asian Studies is an interdisciplinary course that introduces students to interdisciplinary approaches to the study of Asian societies and cultures, using sources from different genres and disciplines to examine the social, cultural, historical, religious, and philosophical dimensions of Asian societies.
Alternating and every year. 3 Credits
AS-401 Practicum in Asian Studies
Prerequisites: AS-101
In this course, students will apply Asian Studies knowledge and skill base through a hands-on activity, such as an internship in an Asian country or locally in an Asia-focused organization, or to a practical issue or challenge relevant to Asian Studies in a real-world setting, such as an internship in an Asia-focused think tank.
Alternating and every year. 3 Credits

## Elective Courses

## HI-236 Modern Far East History I

The cultural, political, and economic roots of modern East Asia, focusing on China, Japan, Korea and Vietnam. Counts for Middle East/Asia in the History Major.
Every year. 3 Credits
HI-237 Modern Far East History II
LASC Categories: GP
The transformation and re-invention of East Asian societies since World War II. Counts for Middle East/ Asia in the History major.
Every year. 3 Credits
HI-251 Roots of China's Rise: Reform, Revolution and Reinvention
LASC Categories: TLC, GP
Examines the modern historical roots of China's rise as an international power, from the decline of its last imperial dynasty through the tumults of 20th century social movements to its recent emergence as a global economic power. Counts for Middle East/ Asia in the History major.
Every 2-3 years. 3 Credits

## HI-255 Faculty-Led Study Abroad: China Cultural Immersion <br> LASC Categories: TLC, GP

Experientially based immersion in the culture and society of China, consisting of language study, visits to historical and cultural sites, cultural immersion activities in local life, and the opportunity to engage with Chinese students. Counts for Middle East/Asia in the History major.
Every 2-3 years. 3 Credits

## HI-318 Ethnic Identities in China

LASC Categories: TLC, GP, DAC, WAC
Prerequisites: EN-102 or EN-202
This course examines the modern history of ethnic identity formation in China and its frontiers and borderlands. It explores how China's own history of territorial expansion and political subjugation driven by ethnic minority rule shaped Chinese concepts of ethnic unity and diversity. The intersecting trajectories of European imperialism and Chinese ethnic nationalism will also be discussed, with the goal of situating the construction of ethnic categorization in China to global processes of colonialism and nationalism. Counts for Middle East/ Asia in the History major
Alternating and every 2-3 years. 3 Credits

## HI-334 Environmental Crisis and Management in China

LASC Categories: HBS, NSP
This course will examine the history of the relationship between Chinese society and culture, economic development, state power, scientific theories, and the environment. Recent media reports have highlighted a worsening environmental crisis in China while at the same time reporting on China as a new leader in the development of alternative energy sources. Government, domestic and international non- governmental organizations, urban and rural activists, scientific studies and discourses, and evolving political ideologies will be addressed. Counts for Middle East/Asia in the History major. Every 2-3 years. 3 Credits

## HI-335 Imperial Crossroads of Modern East Asia

 LASC Categories: TLC, GPExamines East Asian history at the crossroads of Chinese, Japanese, Russian and Korean colonial and nationalist movements in a region called Manchuria, presently China's northeast border with Russia, Korea, and Mongolia. Counts for Middle East/Asia within the History major. Every 2-3 years. 3 Credits

## HI-337 Travels in Asia <br> LASC Categories: TLC, GP

Travels in Asia examines modern East Asian history through the lens of Chinese, Japanese, European, and American travel narratives from the seventeenth through the twentieth centuries. Counts for Middle East/Asia in the History major.
Every 2-3 years. 3 Credits

## PH-170 Introduction to Asian Philosophy

LASC Categories: GP, TLC, DAC
Introduces and surveys the major philosophical traditions in East-Asia, South-Asia, and South-East Asia. This course will study the different worldviews, conceptions of human nature and the good life from these philosophical perspectives, and where possible, make comparisons with Western philosophies.
Every 2-3 years. 3 Credits

## PH-171 Buddhist Philosophy

LASC Categories: GP, ICW, DAC
Introduces and surveys the history and development of the major Buddhist traditions, and their interpretation of core Buddhist philosophies, as they move outwards from India.
Every 2-3 years. 3 Credits

## PH-172 Chinese Philosophy

LASC Categories: GP, TLC, DAC
Surveys the philosophies of ancient China, including Taoism, Buddhism, Legalism and the development of the Confucian tradition in China.
Every 2-3 years. 3 Credits

## PO-221 Asian Politics

LASC Categories: HBS, GP
This course provides students with an analysis of selected political systems of the countries of Asia. Students will have the opportunity to learn about major theories in comparative politics, which will be applied to the understanding of countries in the Asian region. Topics will include communist and post-communist transitions, democratization, social movements, and economic reform. [Applicable to the Global Studies Concentration.]
Every 2-3 years. 3 Credits

## Education

DISCLAIMER: REGULATIONS FOR TEACHER LICENSURE ARE CURRENTLY UNDER REVIEW BY THE MASSACHUSETTS DEPARTMENT OF

ELEMENTARY AND SECONDARY EDUCATION. AS A RESULT, THE PROGRAMS DESCRIBED BELOW MAY BE SUBJECT TO CHANGE AT ANY TIME.

## Department of Education

The Education Department offers a wide range of undergraduate and graduate programs in teacher education. Students can become licensed to teach in Early Childhood (PK-2), Elementary (1-6), Middle (5-8), Middle and Secondary (5-12), or Secondary (8-12) schools or credentialed to teach in preschool and day care programs through the undergraduate programs offered in the Education Department. The department programs offer a blending of classroom and fieldwork approaches. Kappa Delta Pi, the International Honor Society in Education, is available to outstanding upper-division students.

To teach in the Commonwealth of Massachusetts, a teaching license is required. The Worcester State University Teacher Education program is recognized by the Massachusetts Department of Elementary and Secondary Education as having an approved program in the fields of Early Childhood Education, Elementary Education, Middle School Education, and Secondary School Education. Those students who major in early childhood or elementary education, must also complete a minor or an additional major. The Middle and Secondary school programs require a major in a content area and a minor in education. The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed to obtain the initial license.

Graduate programs provide opportunities for students to prepare for careers in Reading, Educational Administration, Moderate Disabilities, English as a Second Language, and School Psychology as well as in Early Childhood, Elementary, Middle, Middle and Secondary, or Secondary Education. Please refer to the Graduate Catalog for further information.

- 4+ Initial License and M.Ed in Middle School Education (p. 126)
- 4+ Initial License and M.Ed in Secondary School Education (p. 128)
- 4+ Initial License in Middle School Education (p. 129)
- 4+ Initial License in Secondary School Education (p. 130)
- Early Childhood Education Major (p. 131)
- Early Education and Care Program (p. 135)
- Education Studies Major (p. 137)
- Education Studies Minor (p. 138)
- Elementary Education Major (p. 139)
- Middle School Education (p. 142)
- Secondary School Education (p. 144)


## Faculty

Kristine A. Camacho, Assistant Professor (2020), B.S., Westfield State University; M.S., Worcester State University; C.A.G.S., Worcester State University; Ph.D., University of Massachusetts Amherst

Megan M. Connerly, Visiting Assistant Professor (2021), B.A., Coe College; M.S.E., Ph.D., University of Kansas

Diane Cooke, Professor (2002), B.S., Louisiana State University; M.A., Ph.D., University of Colorado Boulder

Carol B. Donnelly, Professor (1997), A.B., Wellesley College; M.A., University of Miami; M.Ed., Harvard University; Ed.D. Boston University

Denise R. Foley, Professor (2010), B.A., College of the Holy Cross; M.Ed., Bridgewater State College; C.A.G.S., Fitchburg State College; C.A.G.S., University of Massachusetts, Boston; Ed.D., Indiana University of Pennysylvania

Sue F. Foo, Professor (2004), M.Ed., Ed.D., University of Cincinnati

Pamela Hollander, Department Chair, Associate Professor (2012), B.A., State University of New York Binghamton; M.Ed., Rutgers University; Ed.D., University of Massachusetts Amherst

Christina L. Kaniu, Professor (2010), B.A., Stonehill College; M.Ed., Worcester State College; Ed.D., Northeastern University

Susan R. Monaghan, Associate Professor (2016), B.S., University of Massachusetts, Amherst; A.M., Stanford University; Ph.D., Marquette University

Margarita Perez, Professor (1999), B.A., Mount Holyoke College; M.A., Ed.D., Teachers College Columbia University

Heidi L. Wojcik, Assistant Professor (2020), B.A., M.Ed.,Framingham State University; Ed.D., Leslie University

Sara L. Young, Professor (2010), B.A., School for International Training; M.S.T., New School for Social Research; Ed.D., University of Massachusetts Amherst

## Courses

## ED-101 MTEL Preparation for the Communication And Literacy Skills Subtest

Credits do not count towards graduation. MTEL preparation for the Communication and Literacy Skills Subtest.
Fall only and every year. 1 Credit

## ED-102 MTEL Preparation for the General Curriculum

Multi-Subject Or Early Childhood Subtests
Credits do not count towards graduation. MTEL
preparation for the General Curriculum Multi-subject or Early Childhood Subtests.
1 Credit

## ED-103 Mtel Preparation for the Foundations Of Reading Sub-Test

Credits do not count towards graduation.MTEL Preparation for the Foundations of Reading Sub-test. 1 Credit
ED-104 MTEL Preparation for the Mathematics Portion of the General Curriculum Subtest
Credits do not count towards graduation. MTEL Preparation for the Mathematics Portion of the General Curriculum Subtest.
1 Credit

## ED-120 The Educational Experience Through Memoirs

LASC Categories: TLC, DAC
Explores educational issues through reading memoirs on teaching and being a student focused on diversity. Provides advanced reading strategies. 3 Credits

## ED-149 Introduction to the Teaching Profession Middle/Secondary School <br> LASC Categories: HBS

This course will provide a basic understanding to the teaching aspects in middle and secondary classrooms. It will explore the Massachusetts Department of Educational Professional Standards for Teachers and give students a general orientation to the profession. Principles of the teaching/learning process and related skills will be addressed, in addition to observable behaviors in the classroom setting(s). Students will be required to do 5 fieldwork observation hours in an accredited middle/secondary school.
Fall and Spring and every year. 3 Credits
ED-150 Introduction to the Teaching Profession LASC Categories: HBS, ICW
Overview of the teaching profession, including an examination of a variety of grade levels (Birth-Grade 12), learning environments, equity issues and school management and organization. Developmental domains of learning will be introduced. Students will engage in lesson planning, observational techniques and collaboration. 5 hours of fieldwork or Experiential Learning. Fall and Spring and every year.
Fall and Spring and every year. 3 Credits
ED-155 Teaching and Learning in Elementary School LASC Categories: ICW
Overview of the teaching profession, examination of a variety of learning environments, organizing and managing schools, integrating curricula, observational techniques. 5 hours of fieldwork. Fall and Spring and every year. 3 Credits

## ED-160 Early Childhood Education Today LASC Categories: HBS

Exploration of early childhood education emphasizing developmentally appropriate creativities, motor skills. Discussion: families, community resources, play, integration of special needs. 5 hours of fieldwork.
Fall and Spring and every year. 3 Credits

## ED-191 Explorations in Education

An introductory education course on a current or specialized topic.
Every 2-3 years. 3 Credits

## ED-193 First Year Seminar Education <br> LASC Categories: FYS

Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Every year. 3 Credits

## ED-205 An Introduction to Social-Emotional Learning LASC Categories: ICW

Prerequisites: one of the following courses: ED-150 ED-149 ED-155 ED-160.
This course introduces students to learning strategies needed to promote effective behavior management and social-emotional learning needs in today's classrooms. This course will promote the notion that in order for students to succeed academically, teachers need to ensure that socialemotional and behavioral needs are met. Different strategies for promoting positive behavioral support and social emotional learning strategies at the individual and class-wide level will be introduced. Fall and Spring and every year. 3 Credits
ED-206 Development and Learning of Typical and Atypical Children Birth to Age 8
LASC Categories: DAC, ICW
Prerequisites: ED-150 or ED-160.
Analysis of children's learning, focusing on special education, typical and atypical conditions for learning- birth through age eight.
Fall and Spring and every year. 3 Credits

## ED-207 The Adolescent in Schools \& Society LASC Categories: ICW

This course will investigate the educational, psychological, social and environmental factors related to adolescents in school settings. Fall and Spring and every year. 3 Credits

ED-211 Integrating Science, Social Studies and the Fine Arts in Early Childhood Curriculum
Prerequisites: either ED-150 or ED-160, and both ED-206 and PS-210.
Designing and evaluating multi-disciplinary curricula for all children; materials, organizing environments, regulations, learning theories, evaluation of children's learning and development. 10 hours of fieldwork. Fall and Spring and every year. 3 Credits

## ED-214 Emergent Literacy <br> LASC Categories: WAC

Prerequisites: either ED-150 or ED-160. Take EN-102, ED-206, and ED-211.
Early literacy skills, content and approaches include construction of meaning with written and spoken language, written language forms and functions, letter-sound relationship, phonemic awareness, vocabulary development and assessment. Methods of teaching second language are included. 10 hours of fieldwork.
Every year. 3 Credits

## ED-250 Educational Psychology

Prerequisites: either ED-150 or ED-155. Take PS-210. Learning and developmental processes of typical and atypical learners. Motivation, relationships of intelligence, affect, and achievement. Application to teaching and learning. 10 hours of fieldwork. Prerequisite Elementary: PS 210, and ED 155 or ED 150.

Every year. 3 Credits
ED-251 Principles of Curriculum, Instruction, And Assessment in Middle and High School
LASC Categories: WAC
Prerequisites: ED-149 or ED-150, and take ED-207. Introduces lesson planning, literacy demands, curriculum development and assessment strategies at the middle and high school level. 10 hours of fieldwork.
Every year. 3 Credits

## ED-253 History and Philosophy of Ed <br> LASC Categories: USW

Contemporary problems of education in relation to selected ancient, medieval, and modern philosophers of education.
Other or on demand and every year. 3 Credits
ED-261 Introduction to the Foundations of Reading
This course provides an opportunity for prospective elementary and early childhood level teachers to acquire a strong foundation in current knowledge, perpective and procedures for teaching literacy in grades PK through 6.
Every year. 3 Credits

## ED-270 Diversity \& Multicultural Ed <br> LASC Categories: DAC, DIV

Prerequisites: ED 149 OR ED 150 Take ED-207 ED 251
must be taken concurrently or before ED 270
Prerequisites or Corequisite: ED-251 previously or concurrently.
Introduction to multicultural education, equity and social justice issues in education including a focus on race, ethnicity, languages, class, gender, gender identity, sexual orientation, and disabilities. Fall and Spring and every year. 3 Credits

## ED-271 International and Comparative Education LASC Categories: ICW, GP

This course compares the educational policies, practices and coutcomes in two or more countries. 3 Credits

## ED-275 Curr/Instr in Elementary Ed LASC Categories: WAC

Prerequisites: either ED-150 or ED-155, and take PS-210.
Analysis of interactions in effective elementary schools through participation in and exploration of curriculum, teaching and learning roles. 10 hours of fieldwork.
Fall and Spring and every year. 3 Credits

## ED-285 Understanding and Supporting Children And Youth With Disabilities <br> LASC Categories: ICW

Introduction to the characteristics of diverse children and youth with disabilities and multidisciplinary supports designed to meet their special needs for success in school.
Fall and Spring and every year. 3 Credits
ED-302 Educational Measurement \& Eval
Study, construction, and evaluation of instruments in education; intrepretation of data; criteria for selection and evaluation of behavioral objectives and standarized tests.
Other or on demand and other or on demand. 3 Credits

## ED-303 Urban Education

Development of understanding of the social, psychological, and educational problems of the culturally different; strategies and techniques for teaching in the inner-city practicum. Other or on demand and other or on demand. 3 Credits

ED-304 Best Practices for English Language Learners LASC Categories: TLC, DAC, DIV
Prerequisites: ED-270 or ED-275, or ED-214
Research-based grade level subject matter, instructional strategies, and perfrormance assessments of English Language Learners are the focus of discussions and class projects.
Fall and Spring and every year. 3 Credits
ED-305 Teaching Adult ESL and SIFE
LASC Categories: HBS, DAC
Prerequisites: ED-148 and 9 Education credits
Designed to enhance teacher effectiveness in the adult ESL classroom taking into consideration their unique circumstances.
Every year. 3 Credits

## ED-306 Elementary Reading, Language Arts and Literature

Stresses innterrelationships of oral/written communication; investigates concepts, skills and procedures for teaching literacy and using children's literature in grades 1-6. 20 hours of fieldwork. Every year. 6 Credits

## ED-307 ECE - Science

Thematically taught developmentally-appropriate activities linked to State Science Frameworks (Life, Physical, Earth/Space). Emphasizing hands-on inquiry and relevance to learners' experiences, and addressing diversity, authentic assessment, and use of technology. 10 hours of fieldwork. Pre-requisite: Admitted to Stage 2
Fall and Spring and every year. 3 Credits

## ED-308 ECE - Mathematics

LASC Categories: QAC
Application of Piaget's ideas to early mathematical education. Other well-known psychologists' views concerning early mathematics instruction, with application. Field experience. 10 hours of fieldwork. Prerequisite: Admitted into Stage 2.
Fall and Spring and every year. 3 Credits

## ED-313 Practicum in Early Childhood Education: Preschool/Kindergarten

Prerequisites: either ED-150 or ED-160. Take ED-206, ED-211, and PS-210. Take ED-400 concurrently. Corequisites: ED-400
150 hour practicum in an NAEYC accredited preschool/kindergarten/licensed day care center. Students apply content, methods, and materials from college courses.
Fall and Spring and every year. 3 Credits

## ED-315 Pre-Practicum Experience in Early Childhood Education

Prerequisites: At least 3 stage II Classes. Transfer students who have completed a preschool practicum (ED 313) are eligible to take this course. Pre-practicum experience in an Early Childhood classroom to strengthen skills required to become an effective teacher Topics will include well structured lessons, high expectations, teaching all students, providing a safe learning environment, and professionalism. The Department of Elementary and Secondary Education required Gateway Assessment will be the culminating experience in this course. Fall and Spring and every year. 3 Credits

## ED-319 Advanced Field Experience in Early Childhood Education

LASC Categories: CAP
Prerequisites: ED-313 and ED 400.
Students who have already completed a preschool practicum complete an additional 100-150 hour field experience in Early Childhood Education. Portfolio required.
Fall and Spring and every year. 3 Credits

## ED-320 Elementary Science

Thematically taught grade-appropriate activities linked to State Science Frameworks (Life, Physical, Earth/Space). Emphasizing hands-on inquiry and relevance to learners' experiences, and addressing diversity, authentic assessment, and use of technology. 10 hours of fieldwork. Prerequisite: Admitted into Stage 2
Fall and Spring and every year. 3 Credits
ED-321 Gateway Experience in Early Childhood Ed
Prerequisites: Candidates must have completed at least three Stage II Courses. Co-requisite with ED 313 or ED 315 Pre-practicum Experience in Early Childhood Education.
Prerequisites or Corequisite: ED-313 or ED-315 concurrently.
Gateway experience in Early Childhood Education.
Preparation for, completion, and analysis of Worcester State University's approved DESE Gateway Assessment. Must take place in an educational setting.
Fall and Spring and every year. 1 Credit

## ED-322 Contemporary Education Policy LASC Categories: QR

Prerequisites: EN102, an introductory education course (ED150, ED149, ED155, or ED160) and a college level math course.
This is an applied statistics course, focused on education policy. Education policy at the state and federal level is justified and evaluated by the use of data, statistics, and statistical models. In this course, students will gain an understanding of statistics and current education policy to deeply examine and evaluate the quantitative justification and evaluation of policies. They will build upon this understanding to use available data to propose a new equitable policy or policy change that is ethically justified by data, analysis, and statistical models.
Other or on demand and other or on demand. 3 Credits

ED-325 Elementary Mathematics
LASC Categories: QAC
Prerequisites: MA-130 and MA-131 or MA-132
Mathematics in elementary school. Emphasizes
curriculum theory, material development, and evaluation of materials/techniques. 10 hours of fieldwork. Prerequisite: Admitted into Stage 2 Fall and Spring and every year. 3 Credits

## ED-330 Elementary Social Studies and Mulriculturalism

Goals, curriculum, skills, issues, teaching strategies in educating diverse populations in a global context. 10 hours of fieldwork. Prerequiste: Admitted into Stage 2
Fall and Spring and every year. 3 Credits
ED-339 Children's Literature: Multicultural Literature for PK-9
LASC Categories: HBS, TLC, DAC, DIV
Prerequisites: EN-102 or EN-202
In this class, students will read, discuss, and analyze children's and young adult literature by people of diverse backgrounds including diversity in race, ethnicity, class, gender, sexual orientation, ability, language, and country. Genres and formats may include fiction, nonfiction, biographies, novels in verse, graphic novels, fairy tales, fantasy, and wordless books. While children's and young adult literature will comprise the primary texts in this course, secondary sources from education, linguistics, English, history, sociology, anthropology, women's studies and communications will provide context and theory to guide analysis
Fall and Spring and every year. 3 Credits

ED-340 Language Arts \& Literacy for the Primary Grades<br>Early literacy/language arts content, curriculum materials, and approaches including phonological awareness, phonics, vocabulary, fluency, comprehension, writing and assessment. 10 hours of fieldwork. Admitted into Stage 2.<br>Fall and Spring and every year. 3 Credits<br>\section*{ED-348 Teaching Children's Literature}<br>LASC Categories: CA<br>Prerequisites: EN-102<br>Inquiry into children's literature with a focus on teaching strategies, awards, history, aesthetics, and genres including emphasis on image and text in picture books and graphic novels.<br>Other or on demand. 3 Credits

ED-351 Exceptionalities and Accommodating Diverse Learners in Secondary Schools
Exploration of learning disabilities and other exceptionalities. Addresses strategies to differentiate secondary school curriculum to meet student needs. 10 hours fieldwork.
Fall and Spring and every year. 3 Credits
ED-352 Exceptionalities and Accommodating Diverse Learners in Middle Schools
Exploration of learning disabilities and other exceptionalities. Addresses strategies to differentiate middle school curriculum to meet student needs. 10 hours fieldwork.
Fall and Spring and every year. 3 Credits
ED-353 Assessment, Adjustment to Practice, and Classroom Management in the Secondary School LASC Categories: WAC
Explores classroom management and development and analysis of assessment strategies and data to inform secondary school teaching. 15 hours fieldwork.
Fall and Spring and every year. 3 Credits
ED-354 Assessment, Adjustment to Practice, and Classroom Management in the Middle School LASC Categories: WAC
Explores classroom management and development and analysis of assessment strategies and data to inform secondary school teaching. 15 hours of fieldwork.
Fall and Spring and every year. 3 Credits

ED-370 Methods and Materials in Science, Technology, Engineering, and Mathematics (STEM) At the Middle and Secondary Level
Corequisites: ED-382 or ED-383
Teaching methods and advanced curriculum course for STEM fields including math, health, and the sciences. Taken concurrently with pre-practicum. Fall and Spring and every year. 3 Credits

ED-371 Methods and Materials in Humanities and Social Sciences At the Middle and Secondary Level. Corequisites: ED-382 or ED-383
Teaching methods and advanced curriculum course for humanities fields, including English, World Language, and History/Political Science. Taken concurrently with prepracticum.
Fall and Spring and every year. 3 Credits
ED-372 Technology, Digital Literacy, and Education Prerequisites: a curriculum course from ED-251, ED-275 or ED-211.
This course will provide students with the opportunity to review, implement and evaluate educational technologies and digital literacy teaching and learning resources.
Other or on demand. 3 Credits
ED-375 Prepracticum: Instruction, Classroom
Management, and Family and Community Engagement in the Elementary School
Prepracticum experience in the elementary classroom, addressing accomodations of ELL's and children with disabilities, classroom management, and family/community engagement.
Every year. 3 Credits
ED-382 Prepracticum Experience in Middle School
Prepracticum experience in the subject areas and at the level of the license which the candidate is pursuing. Taken concurrently with ED-370 or ED-371. 45 hours fieldwork.
1 Credit
ED-383 Prepracticum Experience in Secondary School
Prepracticum experience in the subject areas and at the level of the license which the candidate is pursuing. Taken concurrently with ED-370 or ED-371. 45 hours fieldwork.
1 Credit

## ED-386 Assessment and Adjustment in Practice In Early Childhood Education

Development of skills to assess young children and identify special needs. Analyzing assessment data and adjusting practice to improve learning. 10 hours of fieldwork. Pre-requiste: Admitted to Stage 2.
Fall and Spring and every year. 3 Credits

## ED-395 Educator \& Cultural Diversity

To enable the educator to better understand the roots and contributions of diverse cultures in America. Other or on demand. 3 Credits

## ED-400 Inclusive Early Childhood Education: Preschool Through Grade 2

Special education law and procedures, modification of programs for English language learners, working with parents, and developing and implementingan anti-bias curriculum. Pre-requisite: Admitted to Stage II.

Fall and Spring and every year. 3 Credits

## ED-405 Classroom Management and Child Guidance

## Techniques

LASC Categories: CAP
Prerequisites or Corequisite: ED-430
Guided analysis/application of principles for students completing a practicum in primary classrooms. Classroom management and guidance techniques. Fall and Spring and every year. 3 Credits

## ED-408 Directed Study: Education

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## ED-410 Spec Topics: Education

Prerequisites: ED-155
A seminar courseon current issues or topics in education.
Fall and Spring and every year. 3 Credits

## ED-424 Sem: Teaching Practicum

LASC Categories: CAP
Prerequisites or Corequisite: ED-480 or ED-485
Implications of the attempts to juxtapose theory and practice are analyzed from the viewpoint of becoming professional teachers. Taken concurrently with ED-480 and ED-485. Prerequisite: Admitted into Stage 3
Fall and Spring and every year. 3 Credits

## ED-425 Sem: Applying Ed Principles <br> LASC Categories: CAP

Prerequisites or Corequisite: ED-435
Guided analyses and application of principles and procedures for students completing their practicum. Prerequisite: Admitted into Stage 3.
Fall and Spring and every year. 3 Credits

## ED-430 Practicum in Early Childhood Education:

Grade 1 or Grade 2
Prerequisites or Corequisite: ED-405.
Semester-long 200-hour practicum in first or second grade. Planning, implementing, evaluating learning. Setting includes children with sepcial needs. Fall and Spring and every year. 9 Credits

## ED-435 Practicum in Teaching: Elementary School

 Prerequisites or Corequisite: ED-425Principles, techniques, and responsibility of planning, executing, and evaluating teaching and learning for a full semester.
Fall and Spring and every year. 9 Credits
ED-440 Education Studies Internship
Prerequisites: 30 credits of Education courses. Internships in museums, schools, community organizations, government agencies, etc. under joint supervision of the organization/agency and WSU faculty.
Fall and Spring and every year. 3 Credits
ED-450 Independent Study in Education
For the student who wishes to pursue independent study in education; faculty members from other disciplines may be called upon to counsel the student.
Fall and Spring and other or on demand. 1-9 Credits
ED-460 Education Studies Capstone
Prerequisites: 30 credits of Education courses.
This is a capstone course that will be the culminating experience for students in the education major and can take many forms including but not limited to research projects, service-learning projects, curriculum projects, etc. The format of the capstone will be determined based on the career path and interest of the student.
Fall and Spring and every year. 3 Credits

## ED-475 Practicum in Teaching

For the secondary education student; practice in teaching in the secondary school. Prerequisite: Completion of required education courses including the appropriate course in methods and media Fall and Spring and every year. 6-12 Credits

## ED-480 Practicum Tchg Secondary Sch <br> Prerequisites or Corequisite: ED-424

planning, teaching, and evaluating learning experiences. Prerequisite: Admitted into Stage 3 Fall and Spring and every year. 9 Credits

## ED-485 Practicum in Teaching Middle School Prerequisites or Corequisite: ED-424

Full semester teaching experience in a middle school. Includes planning, teaching, and evaluating learning experiences. Prerequisite: Admitted into Stage 3 Fall and Spring and every year. 9 Credits

## Program Learning Outcomes

- Candidates have subject matter knowledge for the content they will teach.
- Candidates apply and evaluate pedagogical principles and can integrate them with content in planning, implementing and assessing.
- As caring professionals, our candidates have high expectations for all learners and work with learning communities to meet the individual needs of diverse learners.
- Candidates reflect upon and evaluate teaching practices in order to improve learner outcomes.
- Candidates use evidence from research and practice to address challenges and improve student outcomes.
- Candidates develop and demonstrate in practice the affirmation of diversity and promote equity in schools and in the larger world. (e.g. race, gender, ethnicity, class, sexual orientation, language, family structure, religion, ability and age, etc.)
- Candidates use technology and digital media strategically and critically in research, teaching and learning.
- Candidates collaborate with colleagues and community members to advance professional practice (e.g. across the curriculum, interdisciplinary, community service etc.).


## 4+ Initial License and M.Ed in Middle School Education

Worcester State University offers the Initial Licensure Program in Middle School Education. Certain grade levels covered by licensure differ based on subject areas (see table below). For more information about licensure areas, please see an academic advisor from the Education Department. Students who complete the 4+ Initial license in Middle School will
earn an initial license as a middle school teacher. The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

Fieldwork accompanies most education courses and is a necessary component of the program. Student pre-practicum experiences include a wide variety of field settings.

The Department of Elementary and Secondary Education offers Initial Licensure programs in the following areas in cooperation with liberal arts and sciences departments in the Worcester State University Education Program.

Teacher of English
Teacher of General
Science
Teacher of History
Teacher of Mathematics (5-8)
Teacher of Spanish (5-12)

For required courses in these subject areas students should consult their liberal arts/science advisor.

Admission Requirements: Undergraduate Program
Students in the 4+ initial license in middle school education will progress through a threestage process. Each stage must be completed satisfactorily prior to passage to the next stage. Students will pursue a major in the content area relevant to their licensure as listed above.

Students must complete all LASC and Major requirements and take the following undergraduate courses:

| Code | Title | Credits |
| :--- | :--- | ---: |
| ED-149 | Introduction to the Teaching <br> Profession Middle/ | 3 |
|  | Secondary School (HBS) |  |
| ED-150 | Introduction to the Teaching <br> Profession |  |
|  |  <br> Society (ICW) | 3 |
| ED-251 | Principles of Curriculum, <br> Instruction, And Assessment <br> in Middle and High School <br> (WAC) | 3 |


| ED-270 | Diversity \& Multicultural Ed <br> (DAC) | 3 |
| :--- | :--- | ---: |
| Total Credits |  | $\mathbf{1 2}$ |


| ES-905 | Methods and Materials <br> for Teaching Humanities <br> (ES-505) | 3 |
| :---: | :--- | ---: |
| or ES-906 | Methods and Materials for Teaching |  |
| ES-921 | Science and Math |  |
|  | Clinical Experience for <br> Middle-Secondary Grades <br> $(5-12)$ | 1 |

Total Credits
Students who complete the requirements for a Bachelor's degree, graduate (with their class).

ES 911 Teaching Practicum (Student Teaching) and ES 908 Teaching Practicum Seminar are completed at the graduate level in the fall or spring, upon completion of all other required classes in the program (ED149/150, ED207, ED251, ED270, ED573/973, ED 509/909, ES 525/925, ES505/506/905/906 with ES521/921). The following classes may be completed at the 500 (part of undergraduate program) or 900 (graduate only) level: ED573/973, ED 509/909, ES 525/925, ES505/506/905/906 with ES521/921.
M.Ed. in Middle School Education

| Code | Title Credi | Credits |
| :---: | :---: | :---: |
| ED-981 | Advanced Foundations of Education | 3 |
| ED-958 | Middle School Curriculum and Instruction: Strategies and Modification | 3 |
| ED-959 | Assessment, Differentiation and Data Analysis in Middle School | 3 |
| ED-963 | The Understanding and Teaching of Culture | 3 |
| ES-950 | Disciplinary, Multimodal and Critical Literacies Across the Content Area | 3 |
| ES-905 <br> or ES-906 | Methods and Materials for Teaching Humanities <br> Methods and Materials for Teaching Science and Math | 3 |
| Content Elective 2 |  | 3 |
| Content Elective 3 |  | 3 |
| Content Elective 4 |  | 3 |
| Content Elective 5 |  | 3 |
| ED-982 | Research in Education | 3 |
| ED-994 | Thesis Seminar | 3 |


| ES-926 | Portfolio Evaluation (Middle/ <br> Secondary) |
| :--- | :--- |
| Total Credits | 37 |
| 44 Initial LicenSe and M.Ed in |  |
| Secondary School EdUCAtion |  |

Worcester State University offers the Initial Licensure Program in Secondary School Education. Certain grade levels covered by licensure differ based on subject areas (see table below). For more information about licensure areas, please see an academic advisor from the Education Department. Students who complete the 4+ Initial license in Secondary School will earn a Master's Degree in Education in Secondary School. The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

Fieldwork accompanies most education courses and is a necessary component of the program. Student pre-practicum experiences include a wide variety of field settings. Students attend different and varied schools in urban, rural, and suburban settings. They also vary their placements and grade levels in different school buildings within districts to insure a well-rounded experience.

The Department of Elementary and Secondary Education offers Initial Licensure programs in the following areas in cooperation with liberal arts and sciences departments in the Worcester State University Education Program.

| Teacher of Biology | $(8-12)$ |
| :--- | :---: |
| Teacher of Chemistry | $(8-12)$ |
| Teacher of Earth and | $(8-12)$ |
| Space Science |  |
| Teacher of English | $(5-12)$ |
| Teacher of History | $(5-12)$ |
| Teacher of Mathematics | $(8-12)$ |
| Teacher of Spanish | $(5-12)$ |

For required courses in these subject areas students should consult their liberal arts/science advisor.

Admission Requirements: Undergraduate Program

Students planning to do a 4+ program in Secondary School Education will progress through a threestage process. Each stage must be completed satisfactorily prior to passage to the next stage. Students will pursue a major in the content area relevant to their licensure as listed above.

Students must complete all LASC and Major requirements and take the following undergraduate courses:

| Code | Title | Credits |
| :--- | :--- | ---: |
| ED-149 | Introduction to the Teaching <br> Profession Middle/ <br> Secondary School (HBS) | 3 |
| ED-207 | Introduction to the Teaching <br> Profession |  |
| ED-251 |  <br> Society (ICW) | 3 |
|  | Principles of Curriculum, <br> Instruction, And Assessment <br> in Middle and High School <br> (WAC) | 3 |
| ED-270 <br> Diversity \& Multicultural Ed <br> (DAC) | 3 |  |

Total Credits
In order to apply to the 4+ Initial license and MED Secondary School Program, students must:

- pass the four above education classes with minimum grades of $B$-,
- pass their Communication and Literacy MTEL,
- pass their Subject Area MTEL,
- have a 3.0+ GPA average in a minimum of 60 credits, and
- have 2 letters of recommendation.

Students can be conditionally admitted to the program, prior to student teaching/initial license. Once a student successfully completes all initial license coursework including student teaching/ seminar and earns an initial license, they can be fully admitted into the M.Ed. in Secondary School program.

Application Priority Deadlines: for Fall entry, March 30.

Application Priority Deadlines: for Spring entry, October 30.

Students admitted to the $4+$ Initial License and MED in Secondary School program use the four undergraduate stage 1 Education courses (ED-149/ ED150, ED-207, ED-251, and ED-270) to meet the Adolescent growth and development requirement and the Multicultural and foundations in education competencies (like ED-949 American Education Contexts and Influences at the graduate level).

After admission to the 4+ program, students could take 1 to 5 courses for a maximum of 13 credits:

| Code | Title Credit |  |
| :---: | :---: | :---: |
| ED-957 | Instructional Design and Evaluation for Middle School Grades (ED-557) | 3 |
| ED-909 | RETELL: Best Practices for English Language Learners (ED-509) | 3 |
| ES-925 | Inclusive Settings: Learning <br> Strategies and management <br> Techniques (5-12) (ES-525) | 3 |
| ES-905 <br> or ES-906 | Methods and Materials <br> for Teaching Humanities (ES-505) <br> Methods and Materials for Teaching Science and Math | 3 |
| ES-921 | Clinical Experience for Middle-Secondary Grades (5-12) (ES-521) | 1 |

## Total Credits

Students who complete the requirements for a Bachelor's degree graduate.

ES-911 Teaching Practicum (Student Teaching) and ES-908 Teaching Practicum Seminar are completed at the graduate level in the fall or spring, upon completion of all other required classes in the program (ED-149/150, ED-207, ED-251, ED-270, ED-573/ED-973, ED-509/ED-909, ES-525/ED-925, ES-505/ES-506/ES-905/ES-906 with ES-521/ES-921). The following classes may be completed at the 500(part of undergraduate program) or 900 (graduate only) level: ED-573/ED-973, ED-509/ED-909, ES-525/ ES-925, ES-505/ES-506/ES-905/ES-906 with ES-521/ ES-921.

[^1]

4 + Middle School Education Initial License
The 4+ Middle Initial Licensure program is for students who are majoring in DESE approved licensure program areas and are seeking a license issued by the Massachusetts Department of Elementary and Secondary Education at the middle school level. Students may choose to use some of the courses to meet some LASC requirements. Students must complete all LASC and Major requirements and take the following undergraduate courses:

ED 149 Intro to Teaching (HBS) or ED 150 Intro to the Teaching Profession (ICW/HBS)

ED 207 Adolescent in School and Society (ICW)

ED 251 Principles of Curriculum and Instruction
(WAC) (WAC)

ED 270 Diversity and Multicultural Education (DAC)
Students must take the 4 above education classes with minimum grades of $\mathrm{C}+$, pass their Communication and Literacy MTEL, pass their Subject Area MTEL, and have a 3.0 GPA average in a minimum of 60 credits in order to be accepted to the 4 + Middle School Education Initial License Program.

Application Priority Deadlines: for Fall entry, March 30.

Application Priority Deadlines: for Spring entry, October 30.

Students admitted to the $4+$ Initial License program use the 4 undergraduate stage 1 Education courses (ED 149/150, ED 207, ED 251, and ED 270) to meet the Adolescent growth and development requirement and the Multicultural and foundations in education competencies (like ED 949 American Education Contexts and Influences at the graduate level).

After admission to the 4+ program-(students could take 1 to 5 courses for a maximum of 13 credits)

ED 973Instructional Design and Evaluation in MiddleSecondary School - Transcripted as ED 573

ED 909 RETELL - transcripted as ED 509
ES 925 Inclusive Settings - transcripted as ES 525
ES 905 or ES 906 Methods and Materials in Humanities/STEM transcripted as ED 505/506 with ES921 transcripted as 521 Clinical Experience in Teaching Middle -Secondary School (1 credit)

Students who complete the requirements for a Bachelor's degree, graduate (with their class).

ES 911 Teaching Practicum (Student Teaching) and ES 908 Teaching Practicum Seminar are completed at the graduate level in the fall or spring, upon completion of all other required classes in the program (ED149/150, ED207, ED251, ED270, ED573/973, ED 509/909, ES 525/925, ES505/506/905/906 with ES521/921). The following classes may be completed at the 500 (part of
undergraduate program) or 900 (graduate only) level: ED573/973, ED 509/909, ES 525/925, ES505/506/905/906 with ES521/921.

To maximize the benefit, students may choose for example to complete the $4+$ initial license program by taking:

2 cross-listed classes ( 6 credits) in the Fall of senior year

3 cross-listed classes ( 7 credits) in the Spring of senior year

Graduate with their class in May!
Graduate level student teaching and seminar in the following Fall. They would then complete the program in December.

Students could also take fewer 500 level classes during their undergraduate study and take summer, fall or spring 900 level graduate sections of required classes to complete the initial license course work prior to student teaching and seminar.

## 4+ Initial License in Secondary School Education

4 + Secondary Education Initial License

The 4+ Secondary Initial Licensure program is for students who are majoring in DESE approved licensure program areas and are seeking a license issued by the Massachusetts Department of Elementary and Secondary Education at the secondary school level.

Students take the following undergraduate courses:
ED 149 Intro to Teaching (HBS) OR ED 150 Introduction to the Teaching Profession (ICW, HBS)

ED 207 Adolescent in School and Society (ICW)
ED 251 Principles of Curriculum and Instruction (WAC)

ED 270 Diversity and Multicultural Education (DAC)
Students must take the 4 above education classes with minimum grades of $\mathrm{C}+$, pass their Communication and Literacy MTEL, pass their Subject Area MTEL, and have a 3.0 GPA average in
a minimum of 60 credits in order to be accepted to the 4 + Secondary School Education Initial License Program.

Application Priority Deadlines: for Fall entry, March 30.

Application Priority Deadlines: for Spring entry, October 30.

Students admitted to the $4+$ Secondary Education Initial License program use the 4 undergraduate stage 1 Education courses (ED 149/150, ED 207, ED 251, and ED 270) to meet the Adolescent growth and development requirement and the multicultural and foundations in education competencies (like ED 949 American Education Contexts and Influences at the graduate level).

After admission to the 4+ program-(students could take 1 to 5 courses for a maximum of 13 credits)

ED 973 Instructional Design and Evaluation in Secondary Schools - Transcripted as ED 573

ED 909 RETELL - transcripted as ED 509
ES 925 Inclusive Settings - transcripted as ES 525
ES 905 or ES 906 Methods and Materials in Humanities/STEM transcripted as ED 505/506 with ES921 transcripted as 521 Clinical Experience in Teaching Secondary School (1 credit)

Students complete the requirements for a Bachelor's degree and graduate.

ES 911 Teaching Practicum (Student Teaching) and ES 908 Teaching Practicum Seminar are completed at the graduate level in the fall or spring, upon completion of all other required classes in the program (ED149, ED207, ED251, ED270, ED573/973, ED 509/909, ES 525/925, ES505/506/905/906 with ES521/921). The following classes may be completed at the 500 (part of undergraduate program) or 900 (graduate only) level: ED573/973, ED 509/909, ES 525/925, ES505/506/905/906 with ES521/921. Students must earn a B- or better in all graduate level courses.

To maximize the benefit, students may choose for example to complete the $4+$ initial license program by taking:

2 cross-listed classes ( 6 credits) in the Fall of senior year

3 cross-listed classes (7 credits) in the Spring of senior year

Graduate with their class in May!
Graduate level student teaching and seminar in the following Fall. They would then complete the program in December.

Students could also take fewer 500 level classes during their undergraduate study and take summer, fall or spring 900 level graduate sections of required classes to complete the initial license course work prior to student teaching and seminar.

## Early Childhood Education Major

The Early Childhood Education major prepares candidates for the Massachusetts Department of Elementary and Secondary Education Initial License as a teacher of children in public school classrooms, PK through grade 2. The program of study is based on a broad liberal arts foundation and an integrated professional teacher preparation program. A course waiver process is available for transfer students where appropriate. Fieldwork accompanies most education courses and is a necessary component of the program. Student prepracticum experiences include a wide variety of field settings. Students attend different and varied schools in urban, rural, and suburban settings. They also vary their placements and grade levels in different school buildings within districts to ensure a well rounded experience.

Preparation for the Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed to obtain the initial license.

## Early Childhood Education Major Teacher Licensure Program (Massachusetts Public Schools, PK-2)

Requirements for a Major in Early Childhood Education leading to MA Department of Elementary and Secondary Education Initial Licensure (PK-2):

45 credits

| Code | Title | Credits |
| :---: | :---: | :---: |
| MA-130 | Number and Operations for Teachers | 3 |
| PS-210 | Developmental Psychology | 3 |
| Total Credits |  | 6 |
| Required Courses |  |  |
| Code | Title | Credits |
| ED-160 | Early Childhood Education Today | 3 |
| or ED-150 | Introduction to the Teaching Profession |  |
| ED-206 | Development and Learning of Typical and Atypical Children Birth to Age 8 | 3 |
| ED-211 | Integrating Science, Social Studies and the Fine Arts in Early Childhood Curriculum | 3 |
| ED-214 | Emergent Literacy | 3 |
| ED-304 | Best Practices for English Language Learners | 3 |
| ED-307 | ECE - Science | 3 |
| ED-308 | ECE - Mathematics | 3 |
| ED-313 | Practicum in Early Childhood <br> Education: Preschool/ <br> Kindergarten | 3 |
| ED-340 | Language Arts \& Literacy for the Primary Grades | 3 |
| ED-386 | Assessment and Adjustment in Practice In Early Childhood Education | 3 |
| ED-400 | Inclusive Early Childhood Education: Preschool Through Grade 2 | 3 |
| ED-405 | Classroom Management and Child Guidance Techniques | 3 |
| ED-430 | Practicum in Early Childhood Education: Grade 1 or Grade 2 | 9 |

Total Credits 45

## Recommended Courses

## Prerequisite Courses

Required Courses

Total Credits
45
Students are required to take specific liberal arts and science courses to satisfy foundation and distribution requirements.

Students who major in early childhood education must also complete a minor or second major. Early childhood education students must meet with an advisor in the education department in order to choose an appropriate minor or second major that aids the student in at least one of the following areas: gaining subject matter knowledge relevant to what they will teach in the future, enhancing pedagogical skills, and/or understanding the diverse students in their future classrooms.

## Admission to the Early Childhood Education Major

Early Childhood Education majors seeking the MA Department of Elementary and Secondary Education Initial License will progress through a threestage process. Each stage must be satisfactorily completed before passage to the next stage.

## Stage I: Early Childhood Major

1. Students demonstrate competence in communication skills by completing the following course with a grade of C or higher.
2. Students demonstrate competence in math with a grade of C or higher in the following course:

| Code | Title | Credits |
| :--- | :--- | ---: |
| EN-102 | College Writing II (or <br> equivalent) | 3 |
| MA-132 | Geometry, Measurement, <br> Probability and Statistics for <br> Teachers | 3 |
|  | Personal Health | 3 |
| HE-100 | Health and Nutrition | 3 |
| HE-120 |  |  |


| Code | Title | Credits |
| :--- | :--- | ---: |
| EN-102 | College Writing II (or | 3 |
|  | equivalent) |  |


| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-130 | Number and Operations | 3 |
|  | for Teachers |  |

3. Students must submit a Criminal Offender Records Information (CORI) application and be approved prior to beginning classroom observations in the Worcester Public Schools.

No student is allowed to do fieldwork unless approval of the CORI has been received from the state. Before completion of ED-160 or ED-150, students must be fingerprinted through the Massachusetts designated agency (MorphoTrust USA IdentoGO). Additional information regarding fingerprinting is available in the Education Department.
4. Students demonstrate potential for teaching children by completing all of the following courses with a grade of $\mathrm{C}+$ or higher and earning a cumulative GPA of 2.5 .

| Code | Title | Credits |
| :--- | :--- | ---: |
| PS-210 | Developmental <br> Psychology | 3 |
| ED-160 ED-150 | Early Childhood Education <br> Today (5 hours fieldwork) <br> Introduction to the Teaching <br> Profession | 3 |
| ED-206 | Development and Learning <br> of Typical and Atypical <br> Children Birth to Age 8 (10 <br> hours) | 3 |
| ED-211 | Integrating Science, Social <br> Studies and the Fine <br> Arts in Early Childhood <br> Curriculum (10 hours <br> fieldwork) | 3 |
| ED-214 | Emergent Literacy (10 <br> hours fieldwork) | 3 |

5. Students must receive a passing score on the Massachusetts Test for Educator Licensure (MTEL) Communication and Literacy Skills Test. MTEL preparation courses are available in the fall and spring semesters.
6. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

## Stage II: Admission into the Early Childhood Licensure Program

1. Upon satisfactory completion of Stage I requirements, students are eligible to apply for formal admission to the Early Childhood Education Licensure Program. The application must include MTEL test results and transcripts
of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.

During Stage II, students must complete all of the following courses with a grade of C+ or higher AND earn a cumulative GPA of 2.7. Fieldwork accompanies the following methods courses.

| Code | Title | Credits |
| :--- | :--- | ---: |
| ED-304 | Best Practices for English <br> Language Learners | 3 |
| ED-307 | ECE - Science (10 hours <br> fieldwork) | 3 |
| ED-308 | ECE - Mathematics (10 <br> hours fieldwork) | 3 |
| ED-313 | Practicum in Early <br> Childhood Education: <br> Preschool/Kindergarten | 3 |
| ED-340 | Language Arts \& Literacy <br> for the Primary Grades (10 <br> hours fieldwork) | 3 |
| Assessment and <br> Adjustment in Practice In <br> Early Childhood Education <br> (5 hours fieldwork) | 3 |  |
|  | Inclusive Early Childhood <br> Education: Preschool | 3 |

2. After completing 90 credits of academic work, students may apply for formal admission into ED-313 (corerequisite ED-400). This application will be reviewed and acted upon by the Licensure Officer. Additional information regarding formal application for Practicum in ECE is available from the Education Department.

## Stage III: Early Childhood Education Major Practicum

1. Upon satisfactory completion of Stage II requirements, students are eligible to apply for formal admission into ED-430 (corequisite ED-405).
2. Students must have received a passing score on all portions of the Massachusetts Test for Educator Licensure (Communication and Literacy, Early Childhood, and Foundations of Reading).
3. Students must have attained senior standing ( 90 credits of course work) to complete the Primary Practicum.
4. This application will be reviewed and acted upon by the Licensure Officer.
5. Students convicted of a felony may be denied admission to student teaching.
6. Any departure from the prescribed program of study must be approved by the Department Chair and/or Dean of Education and Interdisciplinary Studies.

Additional information regarding formal application for the Primary Practicum is available from the Education Department.

## Department of Education: Early Childhood Education \& Second Major Sample Timeline For Completion of Degree

| Year One |  |  |
| :---: | :---: | :---: |
| Semester One |  | Credits |
| ED-160 | Early Childhood Education Today | 3 |
| EN-101 | College Writing ${ }^{1}$ | 3 |
| LASC | First-Year Seminar (p. 50) | 3 |
| MA-130 | Number and Operations for Teachers (LASC QR) | 3 |
| PS-101 | General Psychology (LASC HBS) | 3 |
|  | Credits | 15 |


| Semester Two |  |
| :--- | :--- | :--- |
| EN-102 College Writing II ${ }^{1}$ | 3 |


| HI-111 | US History to 1877 (LASC <br> Const) |
| :--- | :--- |

ED-206 Development and Learning 3

|  | of Typical and Atypical <br> Children Birth to Age 8 (LASC <br> DAC) |  |
| :--- | :--- | ---: |
|  | Developmental Psychology |  |$\quad 3$| PS-210 |
| :--- | | Physical Geography (LASC |
| :--- |
| NSP) |

$\begin{array}{r}\text { Second Major Requirement } \\ \hline \text { Credits }\end{array}$
Year Two
Semester Three

| ED-211 | Integrating Science, Social <br> Studies and the Fine Arts in <br> Early Childhood Curriculum | 3 |
| :--- | :--- | ---: |
| HI-112 | US History 1865 to the <br> Present (LASC USW) | 3 |
| HE-100 | Personal Health (LASC ICW) | 3 |


| MA-132 | Geometry, Measurement, <br> Probability and Statistics for <br> Teachers (LASC QR) | 3 |
| :--- | :--- | ---: |
| LASC QLAC or Second Major Requirement |  |  |$\quad$| Semester Four | Credits |
| :--- | :--- |
| ED-214 | Emergent Literacy (LASC <br> WAC) |
| EV-120 | Integrated Environmental <br> Science for Educators |
| ED-339 | Children's Literature: <br> Multicultural Literature <br> for PK-9 ( (or other LASC <br> Elective TLC)) |

Second Major Requirement
Second Major Requirement
Credits
10

## Year Three

Semester Five

| $\begin{aligned} & \text { ED-307 } \\ & \quad \text { or ED-308 } \end{aligned}$ | ECE - Science or ECE - Mathematics | 3 |
| :---: | :---: | :---: |
| ED-340 | Language Arts \& Literacy for the Primary Grades | 3 |
| MU-237 | Music in the Elementary <br> School (LASC CA) | 3 |
| HI-103 | Connecting Ancient Worlds: World History to 1500 (LASC GP) | 3 |

Second Major Requirement
Second Major Requirement
Credits 12

| Semester Six |  |
| :--- | :--- |
| ED-308 | ECE - Mathematics (LASC |

or ED-307 QLAC)
or ECE - Science

| ED-386 | Assessment and Adjustment <br> in Practice In Early |
| :--- | :--- |
|  | Childhood Education |

Second Major Requirement
Second Major Requirement
Second Major Requirement
Credits 6

## Year Four

Semester Seven

| ED-304 | Best Practices for English <br> Language Learners (LASC <br> DAC) | 3 |
| :--- | :--- | ---: |
| ED-400 | Inclusive Early Childhood <br> Education: Preschool <br> Through Grade 2 | 3 |


| ED-313 | Practicum in Early Childhood <br> Education: Preschool/ <br> Kindergarten | 3 |
| :---: | :---: | :---: |
| Second Major Requirement |  |  |
| Second Major Requirement |  |  |
|  | Credits | 9 |
| Semester Eight |  |  |
| ED-405 | Classroom Management and Child Guidance Techniques | 3 |
| ED-430 | Practicum in Early Childhood Education: Grade 1 or Grade 2 | 9 |
|  | Credits | 12 |
|  | Total Credits | 91 |
| ${ }^{1}$ EN-101 \& EN-102 satisfies LASC writing. |  |  |

MTEL Timeline:

- After completing EN-102, students should take the Communication and Literacy Skills MTEL.
- By the beginning of their Junior Year, students should take the Foundations of Reading MTEL.
- By the end of their Junior Year, students should take the Early Childhood MTEL.
- In order to enroll in ED-405 and ED-430, students must successfully complete all MTEL requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Early Education and Care Program

## (Early Intervention, Head Start, Private Preschool, and Group Day Care)

The Early Childhood Education major prepares students to enter the field of Early Education and Care so they can work in areas such as Early Intervention, Head Start, private preschool, and group
day care. The program integrates studies in liberal arts and sciences with guidelines and standards presented by the Massachusetts Department of Early Education and Care. Fieldwork accompanies most education courses and is a necessary component of the program. A course waiver process is available for transfer students and articulation agreements are in place with regional community colleges.

## Admission into the Early Education and Care Major

Early Education and Care students progress through a three-stage process. Each stage within this track must be satisfactorily completed before passage to the next stage.

## Stage I: Early Education and Care

1. Students demonstrate competence in communication skills by completing the following course with a grade of C or higher.

| Code | Title | Credits |
| :--- | :--- | ---: |
| EN-102 | College Writing II (or | 3 |
|  | equivalent) |  |

2. Students must submit a CORI application and be approved prior to beginning classroom observations in the Worcester Public Schools. No student is allowed to do fieldwork unless approval of the CORI has been received from the state.
3. Students demonstrate potential for teaching children by completing all of the following courses with a grade of $\mathrm{C}+$ or higher AND earning a cumulative GPA of 2.5 or higher.

| Code | Title | Credits |
| :--- | :--- | ---: |
| ED-160 | Early Childhood Education | 3 |
| or ED-150 | Today (5 hours fieldwork) <br> Introduction to the Teaching |  |
| ED-206 | Profession |  |
| Development and Learning <br> of Typical and Atypical <br> Children Birth to Age 8 (10 <br> hours fieldwork) | 3 |  |


| ED-211 | Integrating Science, Social <br> Studies and the Fine <br> Arts in Early Childhood <br> Curriculum (10 hours <br> fieldwork) | 3 |
| :--- | :--- | :---: |
| ED-214 | Emergent Literacy (10 <br> hours fieldwork) | 3 |

ED-400 Education: Preschool Through Grade $2{ }^{1}$
$90^{1}$ credits must be completed prior to taking ED-319. ED-400 should be taken as a corequisite with ED-313.
2. Students must apply for formal admission to ED-313 and ED-319. This application will be reviewed and acted upon by the Licensure Officer. Additional information regarding formal application for the advanced practicum is available from the Education Department.

This program provides preparation for certification through the Department of Early Education and Care as a Lead Teacher for Preschool.

Note: This program does not lead to Massachusetts Department of Elementary and Secondary Education public school licensure. Students who complete this program and apply to the WSU post-baccalaureate non-degree initial licensure program must provide evidence that they have worked in the field for 3 years. Any departure from the prescribed program of study must have approval from the Department Chair or Dean.

## Requirements for Early Education and Care: 33 Credits

| Code Title | Credits |
| :--- | ---: |
| Prerequisite Course | $(0$ |
|  | credits) |


| PS-210 | Developmental Psychology |  |
| :--- | :--- | ---: |
| Required Courses |  | $(33$ <br> credits) |
| ED-160 | Early Childhood Education <br> Today | 3 |
| ED-206 | Development and Learning <br> of Typical and Atypical <br> Children Birth to Age 8 | 3 |
| ED-211 | Integrating Science, Social <br> Studies and the Fine Arts in | 3 |
| ED-214 | Early Childhood Curriculum |  |
| ED-307 | Emergent Literacy | 3 |


| ED-308 | ECE - Mathematics | 3 |
| :---: | :---: | :---: |
| ED-313 | Practicum in Early Childhood Education: Preschool/ Kindergarten | 3 |
| ED-319 | Advanced Field Experience in Early Childhood Education | 3 |
| ED-340 | Language Arts \& Literacy for the Primary Grades | 3 |
| ED-386 | Assessment and Adjustment in Practice In Early Childhood Education | 3 |
| ED-400 | Inclusive Early Childhood Education: Preschool Through Grade 2 | 3 |
| Recommended Courses |  | credits) |
| ED-304 | Best Practices for English Language Learners |  |
| HE-120 or HE-140 | Health and Nutrition Creative Arts and Health |  |
| MA-130 | Number and Operations for Teachers |  |
| MA-132 | Geometry, Measurement, Probability and Statistics for Teachers |  |

Total Credits
33

Students are required to take specific liberal arts and science courses to satisfy foundation and distribution requirements. Students can meet with their advisors and/or consult their degree audit through WebAdvisor.

Early Education and Care majors must either complete an academic major in the arts or sciences approved by the Education Department OR complete a cluster of 30 credits of course work which address the MA Department of Early Education and Care's Core Teacher Competencies. A list of possible courses is available in the Education Department.

## Education Studies Major

The major in Education Studies will allow students who would like to explore careers in education or related fields to major in education without pursuing a license from the Massachusetts Department of Elementary and Secondary Education. Students will be able to prepare for careers in community organizations, museums, curriculum development, etc. Also, WSU students majoring in occupational sciences, communication sciences and disorders,
psychology, sociology, and urban studies, amongst others, may be particularly interested in adding a major in education studies.

Requirements: Take a minimum of 18 Credits in Foundations of Education. You must take at least one course from each category; 2 or more courses can be taken from any category except Introduction. Take 18 credits in advanced Education electives at the 300,400 , or 500 level. If you use a course to meet Foundations of Education, you cannot also use it as an upper-level elective. A 3-credit Capstone or Internship Experience is also required.

Please Note: This major will not lead to any license from the Massachusetts Department of Elementary and Secondary Education.

| Code | Title | Credits <br> $(18$ |
| :--- | :--- | ---: |
| Foundations of Education | credits) |  |
| Introduction | Introduction to the Teaching <br> Take one course from the following: <br> ED-149 <br> Secondary School |  |
| ED-150 | Introduction to the Teaching <br> Profession |  |
| ED-155 | Teaching and Learning in <br> Elementary School <br> Early Childhood Education <br> Today |  |

Learning and Development
Take one course from the following:

| ED-206 | Development and Learning <br> of Typical and Atypical <br> Children Birth to Age 8 |
| :--- | :--- |
| ED-207 |  <br> Society |
| ED-250 | Educational Psychology <br> ED-285 <br> Supporting Children And <br> Youth With Disabilities |
| Curriculum and Instruction |  | | Take one course from the following: |
| :--- | :--- |


| ED-261 | $\begin{array}{l}\text { Introduction to the } \\ \text { Foundations of Reading }\end{array}$ |
| :--- | :--- |
| ED-275 | Curr/Instr in Elementary Ed |$\}$| Cultural and Historical Foundations in Education |
| :--- | :--- |

Foundations of Education Electives 6
Take two additional courses from any of the above categories except Introduction.

Upper Level Education Courses | (18 |
| ---: |
| credits) |

Take 18 credits of Education courses at the 300
level or above. Cannot include courses taken for Foundations of Education or the Capstone/ Internship Experience.

| Capstone or Internship Experience | (3 <br> credits) |  |
| :---: | :--- | ---: |
| ED-440 | Education Studies Internship | 3 |
| or ED-460 | Education Studies Capstone |  |

CREDIT TOTAL: 39

Stage 2 Methods courses can only be taken with permission of advisor and instructor.

With the exception of ED-304 Best Practices for English Language Learners, upper-level electives should not be Stage II courses counting toward licensure unless special permission is granted by an advisor and the course instructor.

## Education Studies Minor

Many courses of study at WSU lead students to pursue school-based careers or careers that may require a general background in the theoretical and practical aspects of teaching, learning, school contexts, diversity, and child development. This minor provides opportunities for students who are not enrolled in an initial licensure program through
the education department to gain knowledge and skills in these areas without having to engage in a full licensure program.

The minor does not lead to initial license in education and does not require students to take the MTEL exams. The Education Studies Minor is a minimum of 18 credits. At least 3 credits must be at the 300/400 level.

## Requirements for a Minor in Education Studies

\(\left.$$
\begin{array}{llr}\text { - } \begin{array}{l}\text { Code } \\
\text { Introduction }\end{array} & \begin{array}{r}\text { Credits } \\
\text { (3 }\end{array}
$$ <br>
Take only one course in the Introduction <br>

section from the following:\end{array}\right\}\)| credits |
| :--- |


| Diversity | (3 <br> credits) |
| :--- | :--- | ---: |
| Take one course from the following: | 3 |
| ED-120 | The Educational <br> Experience Through <br> Memoirs |
| ED-270 | Diversity \& Multicultural <br> Ed |
| ED-271 | International and <br> Comparative Education |
| ED-304 | Best Practices for English <br> Language Learners |
| ED-339 | Children's Literature: <br> Multicultural Literature for <br> PK-9 |

Electives | $(6$ |
| ---: |
| credits) |

Take two additional Education courses (not 6 including the Introduction courses) from the categories above or ANY OTHER Education Course at the 200 level or above.

Total Credits

Stage 2 Methods courses can only be taken with permission of advisor and instructor.

With the exception of ED-304 Best Practices for English Language Learners, upper-level electives should not be Stage II courses counting toward licensure unless special permission is granted by an advisor and the course instructor.

## Elementary Education Major Elementary Education Major Teacher Licensure Program

The Elementary Education major prepares candidates for Initial Licensure as a teacher of children in a public school classroom, grades 1 through 6. The program of study is based on a broad liberal arts foundation and an integrated professional teacher preparation program. A course waiver process is available for transfer students where appropriate. Fieldwork accompanies most education courses and is a necessary component of the program. Student fieldwork and pre-practicum experiences include a wide variety of field settings. Students attend different and varied schools in urban, rural, and
suburban settings. They also vary their placements and grade levels in different school buildings within districts to ensure a well rounded experience.

Preparation for the Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages, which must be passed to obtain the initial license.

## Admission to the Elementary Education Major

Students planning to major in Elementary Education will progress through a three-stage process. Each stage must be satisfactorily completed before passage to the next stage.

## Stage I: Elementary Education Major

1. Students must demonstrate competence in communication skills by completion of the following course with a grade of C or higher.

| Code | Title | Credits |
| :--- | :--- | ---: |
| EN-102 | College Writing II (or | 3 |
|  | equivalent) |  |

2. Students must demonstrate competence in Math with a grade of C or higher in the following courses:

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-130 | Number and Operations <br> for Teachers | 3 |
| MA-131 | Patterns, Functions and <br> Algebra for Teachers | 3 |
| MA-132 | Geometry, Measurement, <br> Probability and Statistics <br> for Teachers | 3 |

3. Students must submit a Criminal Offender Records Information (CORI) application and be approved prior to doing classroom observations in Worcester Public Schools. No student is allowed to do fieldwork unless approval of the CORI has been received from the state. Before completion of ED-155 or ED-150, students must be fingerprinted through the Massachusetts designated agency (MorphoTrust USA IdentoGO). Additional information regarding fingerprinting is available in the Education Department.
4. Students demonstrate potential for teaching children by completing all of the following courses with a grade of $\mathrm{C}+$ or higher AND earning a cumulative GPA of 2.5.

| Code | Title | Credits |
| :--- | :--- | ---: |
| PS-210 | Developmental <br> Psychology | 3 |
| ED-155 | Teaching and Learning <br> in Elementary School (5 <br> hours fieldwork) <br> Introduction to the Teaching | 3 |
| ED-150Profession |  |  |
| ED-261 | Educational Psychology <br> (10 hours fieldwork) | 3 |
| Introduction to the | 3 |  |
| ED-275 | Foundations of Reading <br> Curr/Instr in Elementary | 3 |
|  | Ed (10 hours fieldwork) |  |

5. Students must receive a passing score on the Massachusetts Test for Educator Licensure (MTEL) Communication and Literacy Skills Test.
6. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

## Stage II: Admission into the Elementary Education Licensure Program

1. Upon satisfactory completion of Stage I requirements, students are eligible to apply for formal admission to the Elementary Education Licensure Program. The application must include MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.
2. During Stage II, students must complete all of the following courses with a grade of C+ or higher AND earn a cumulative GPA of 2.7. Fieldwork accompanies the following methods courses.

| Code | Title | Credits |
| :--- | :--- | ---: |
| ED-304 | Best Practices for English <br> Language Learners | 3 |
| ED-306 | Elementary Reading, <br> Language Arts and <br> Literature (20 hours <br> fieldwork) | 6 |
|  | Elementary Science (10 <br> hours fieldwork) | 3 |
| ED-320 ED-325 | Elementary Mathematics <br> (10 hours fieldwork) | 3 |
| ED-330 | Elementary Social Studies <br> and Mulriculturalism (10 <br> hours fieldwork) | 3 |

ED-375 | Prepracticum: Instruction, |
| :--- | :--- |
| Classroom Management, |
| and Family and |
| Community Engagement |
| in the Elementary School |

## Stage III: Elementary Education Major Practicum

1. Upon satisfactory completion of Stage II requirements, student are eligible to apply for formal admission into the Practicum, ED-435 (corequisite ED-425).
2. Students must have received a passing score on the Massachusetts Test for Educator Licensure (MTEL) in Communication and Literacy Skills, Foundations of Reading, General Curriculum Multisubject subtest and Mathematics subtest for Elementary majors.
3. The Stage III application will be reviewed and acted on by the Licensure Officer.
4. Students must have attained senior standing (90 credits of course work) to student teach.
5. Students convicted of a felony may be denied admission to student teaching.
6. Any departure from the prescribed program of study must be approved by the Department Chair or Dean.

Additional information regarding formal application into student teaching is available from the Education Department.

## Requirements for a Major in Elementary Education Prerequisite Courses

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-130 | Number and Operations for | 3 |
| MA-131 | Teachers |  |
|  | Patterns, Functions and <br> MA-132 | 3 |
|  | Geometry, Measurement, <br> Probability and Statistics for | 3 |
| PS-210 | Teachers |  |
|  | Developmental Psychology | 3 |

Required Courses

| Code | Title | Credits |
| :---: | :---: | :---: |
| ED-155 | Teaching and Learning in Elementary School | 3 |
| or ED-150 | Introduction to the Teaching Profession |  |
| ED-250 | Educational Psychology | 3 |
| ED-261 | Introduction to the Foundations of Reading | 3 |
| ED-275 | Curr/Instr in Elementary Ed | 3 |
| ED-304 | Best Practices for English Language Learners | 3 |
| ED-306 | Elementary Reading, <br> Language Arts and Literature | 6 |
| ED-320 | Elementary Science | 3 |
| ED-325 | Elementary Mathematics | 3 |
| ED-330 | Elementary Social Studies and Mulriculturalism | 3 |
| ED-375 | Prepracticum: Instruction, Classroom Management, and Family and Community Engagement in the Elementary School | 3 |
| ED-425 | Sem: Applying Ed Principles | 3 |
| ED-435 | Practicum in Teaching: <br> Elementary School | 9 |
| Total Credits |  | 45 |

Recommended Courses

| Code | Title | Credits |
| :--- | :--- | ---: |
| HE-100 | Personal Health | 3 |
| or HE-120 | Health and Nutrition |  |

Students will also be required to take specific liberal arts and science courses to satisfy LASC requirements.

Students who major in elementary education must also complete a minor or second major. Elementary education students must meet with an advisor in the education department in order to choose an appropriate minor or second major that aids the student in at least one of the following areas: gaining subject matter knowledge relevant to what they will teach in the future, enhancing pedagogical skills, and/or understanding the diverse students in their future classrooms.

Department of Education: Elementary Education \& Second Major Sample Timeline for Completion of Degree

| Year One |  |  |
| :---: | :---: | :---: |
| Semester One |  | Credits |
| $\begin{aligned} & \text { ED-150 } \\ & \text { or ED-155 } \end{aligned}$ | Introduction to the Teaching Profession (ICW) or Teaching and Learning in Elementary School | 3 |
| MA-130 | Number and Operations for Teachers (QR) ${ }^{2}$ | 3 |
| LASC | First-Year Seminar (p. 50) | 3 |
| EN-101 | College Writing I (Writing) ${ }^{1}$ | 3 |
| PS-101 | General Psychology (HBS) | 3 |
|  | Credits | 15 |
| Semester Two |  |  |
| MA-131 | Patterns, Functions and Algebra for Teachers ${ }^{2}$ | 3 |
| PS-210 | Developmental Psychology (HBS) | 3 |
| EN-102 | College Writing II (Writing) ${ }^{1}$ | 3 |
| HI-111 | US History to 1877 (CON) | 3 |
| Second Major or Minor Requirement |  | 3 |
|  | Credits | 15 |

Year Two
Semester Three

| ED-250 | Educational Psychology | 3 |
| :--- | :--- | ---: |
| MA-132 | Geometry, Measurement, <br> Probability and Statistics for <br> Teachers $^{2}$ | 3 |
| HI-112 | US History 1865 to the <br> Present (USW) | 3 |
| MU-237 | Music in the Elementary <br> School (CA) | 3 |
| Second Major or Minor Requirement | 3 |  |
|  | Credits | $\mathbf{1 5}$ |

## Semester Four

| ED-261 | Introduction to the <br> Foundations of Reading | 3 |
| :--- | :--- | :--- |
| ED-271 | International and <br> Comparative Education (GP) | 3 |
| ED-275 | Curr/Instr in Elementary Ed | 3 |
| EV-120 | Integrated Environmental <br> Science for Educators (NSP, <br> LAB) | 4 |
|  |  |  |

Second Major or Minor Requirement 3
Credits

| Year Three |  |  |
| :---: | :---: | :---: |
| Semester Five |  |  |
| ED-304 | Best Practices for English Language Learners (TLC) | 3 |
| ED-306 | Elementary Reading, Language Arts and Literature 3 | 6 |
| GS-101 | Physical Geography (NSP) | 3 |
| Second Major or Minor Requirement |  | 3 |
| Second Major or Minor Requirement |  | 3 |
|  | Credits | 18 |
| Semester Six |  |  |
| ED-320 | Elementary Science | 3 |
| ED-325 | Elementary Mathematics | 3 |
| Second Major or Minor Requirement |  | 3 |
| Second Major or Minor Requirement |  | 3 |
| Second Major or Minor Requirement |  | 3 |
|  | Credits | 15 |
| Year Four |  |  |
| Semester Seven |  |  |
| ED-330 | Elementary Social Studies and Mulriculturalism | 3 |
| ED-375 | Prepracticum: Instruction, Classroom Management, and Family and Community Engagement in the Elementary School | 3 |
| Second Major or Minor Requirement |  | 3 |
| Second Major or Minor Requirement |  | 3 |
| Second Major or Minor Requirement |  | 3 |
|  | Credits | 15 |
| Semester Eight |  |  |
| ED-425 | Sem: Applying Ed Principles $(\text { LASC CAP })^{4}$ | 3 |
| ED-435 | Practicum in Teaching: Elementary School ${ }^{4}$ | 9 |
|  | Credits | 12 |
|  | Total Credits | 121 |

${ }^{1}$ EN-101 \& EN-102 satisfies LASC writing. Students should take the Communication and Literacy Skills MTEL after completing EN-102.
${ }^{2}$ Students should take the General Curriculum Mathematics Subtest MTEL after completing MA-130, MA-131 and MA-132.
${ }^{3}$ Students should take the Foundations of Reading MTEL after completing ED-306.
${ }^{4}$ Students must successfully complete all MTEL requirements before enrolling in ED-425 and ED-435.

Students are required to meet with their department advisor each semester to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

## Middle School Education

Worcester State University offers the Initial Licensure Program in Middle School Education. Certain grade levels covered by licensure differ based on subject areas (see table below). For more information about licensure areas, please see an academic advisor from the Education Department. The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

Fieldwork accompanies most education courses and is a necessary component of the program. Student pre-practicum experiences include a wide variety of field settings. Students attend different and varied schools in urban, rural, and suburban settings. They also vary their placements and grade levels in different school buildings within districts to insure a well rounded experience.

The Department of Elementary and Secondary Education offers Initial Licensure programs in the following areas in cooperation with liberal arts and sciences departments in the Worcester State University Education Program.

| Teacher of English | $(5-12)$ |
| :--- | :--- |
| Teacher of General | $(5-8)$ |
| Science |  | | Teacher of Health/Family |  |
| :--- | :--- |
| and Consumer Sciences |  |
| Teacher of History | $(5-12)$ |
| Teacher of Mathematics | $(5-8)$ |
| Teacher of Spanish | $(5-12)$ |

For required courses in these areas students should consult their liberal arts/science advisor.

## Admission Requirements: Undergraduate Program

Students planning to minor in Middle School Education will progress through a three-stage process. Each stage must be completed satisfactorily prior to passage to the next stage. Students will pursue a major in the content area relevant to their licensure as listed above.

## Requirements for the Middle School Education Initial Teacher Licensure Program Stage I: Middle School Education Minor

1. Students must complete EN-102 with a grade of C or higher.
2. Students must complete 15 semester hours in the subject major.
3. Students must submit a Criminal Offender Records Information (CORI) application and be approved prior to beginning classroom observations for Education courses. No student is allowed to do fieldwork unless approval of the CORI has been received from the state. Before completion of ED-149, students must be finger printed through the Massachusetts designated agency (Morpho Trust USA Idento GO). Additional information regarding finger printing is available in the Education Department.
4. Students demonstrate potential for teaching children by completing all of the following courses with a grade of $\mathrm{C}+$ or higher AND earning a cumulative GPA of 2.5.

| Code | Title | Credits |
| :--- | :--- | ---: |
| ED-149 | Introduction to the | 3 |
|  | Teaching Profession |  |
| or ED-150 | Middle/Secondary School <br> Introduction to the Teaching |  |
|  | Profession |  |
| ED-207 | The Adolescent in Schools <br> \& Society | 3 |


| ED-251 | Principles of Curriculum, <br> Instruction, And <br> Assessment in Middle and | 3 |
| :--- | :--- | ---: |
|  | High School |  |
| ED-270 | Diversity \& Multicultural <br> Ed | 3 |

5. Students must have received a passing score on the Massachusetts Test for Educator Licensure (MTEL) Communication and Literacy Skills Test.
6. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

## Stage II: Admission into Middle School Education Licensure Program

1. Upon satisfactory completion of Stage I requirements, the student is eligible to apply for formal admission into the middle school education minor. The application must include MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.
2. During Stage II, students must complete all of the following courses with a grade of C+ or higher AND earn a cumulative GPA of 2.7. Fieldwork accompanies the following courses (except for ED304).

| Code | Title | Credits |
| :---: | :---: | :---: |
| ED-304 | Best Practices for English Language Learners | 3 |
| ED-352 | Exceptionalities and Accommodating Diverse Learners in Middle Schools | 3 |
| ED-354 | Assessment, Adjustment to Practice, and Classroom Management in the Middle School | 3 |
| ED-370 | Methods and Materials in Science, Technology, Engineering, and Mathematics (STEM) At the Middle and Secondary Level | 3 |


| or ED-371 | Methods and Materials in <br> Humanities and Social Sciences At <br> the Middle and Secondary Level. |
| :---: | :--- |
| ED-382 | Prepracticum Experience <br> in Middle School <br> (corerequisite with ED <br> 370/ED371) |

3. Students must have received a passing score on the Massachusetts Test for Educator Licensure (MTEL) in their major subject area and communication and literacy skills.

## Stage III: Middle School Education Minor - Practicum

1. Upon satisfactory completion of Stage II requirements, the student is eligible to apply for formal admission into the practicum, ED-485 (9 credits), ED-424 (3 credits)
2. Students must have received a passing score on the Massachusetts Test for the Educator Licensure (MTEL) in Communication and Literacy Skills and the subject matter area.
3. The Stage III application will be reviewed and acted upon by the Licensure Officer.
4. Students must have attained senior standing (90 credits of course work) to student teach.
5. Students convicted of a felony may be denied admission to student teaching.

Additional information regarding formal application into student teaching is available from the Education Department.

## Secondary School Education

Worcester State University offers the Initial Licensure in Secondary School Education depending on the specific licensure. Certain grade levels covered by licensure differ based on subject areas (see table below). For more information about licensure areas, please see an academic advisor from the Education Department. The Massachusetts Test for Educator Licensure (MTEL) is embedded in the program at various stages and must be passed for completion of the program and licensure.

Fieldwork accompanies most education courses and is a necessary component of the program. Student pre-practicum experiences include a wide variety of field settings. Students attend different and varied schools in urban, rural, and suburban settings. They also vary their placements and grade levels in different school buildings within districts to insure a well rounded experience.

The Department of Elementary and Secondary Education offers Initial Licensure programs in the following areas in cooperation with the liberal arts and sciences departments in the Worcester State University Education Program.

| Teacher of Biology | $(8-12)$ |
| :--- | :--- |
| Teacher of Chemistry | $(8-12)$ |
| Teacher of Earth and $(8-12)$ <br> Space Science  |  |
| Teacher of English | $(5-12)$ |
| Teacher of Health/Family | (all grades) |
| and Consumer Sciences |  |
| Teacher of History | $(5-12)$ |
| Teacher of Mathematics | $(8-12)$ |
| Teacher of Spanish | $(5-12)$ |

For required courses in these areas, students should consult their liberal arts/science advisor.

## Admission Requirements: Undergraduate Program

Students planning to minor in Secondary Education will progress through a three-stage process. Each stage must be completed satisfactorily prior to passage to the next stage. Students will pursue a major in the content area relevant to their licensure as listed above.

## Requirements for the Secondary School Education Initial Teacher Licensure Program Stage I: Secondary School Education Minor

1. Students must complete EN-102 with a grade of C or higher.
2. Students must complete 15 semester hours in the subject major.
3. Students must submit a Criminal Offender Records Information (CORI) application and be approved prior to beginning observations for Education courses. No student is allowed to do fieldwork unless approval of the CORI has been received from the state. Before completion of ED-149, students must be finger printed through the Massachusetts designated agency (Morpho Trust USA Idento GO). Additional information regarding finger printing is available in the Education Department.
4. Students demonstrate potential for teaching children by completing all of the following courses with a grade of C+ or higher AND earn a cumulative GPA of 2.5.

| Code | Title | Credits |
| :---: | :---: | :---: |
| ED-149 | Introduction to the | 3 |
|  | Teaching Profession |  |
|  | Middle/Secondary School |  |
| or ED-150 | Introduction to the Teaching Profession |  |
| ED-207 | The Adolescent in Schools \& Society | 3 |
| ED-251 | Principles of Curriculum, Instruction, And Assessment in Middle and High School | 3 |
| ED-270 | Diversity \& Multicultural Ed | 3 |

5. Students must have received a passing score on the Massachusetts Test for Educator Licensure (MTEL) Communication and Literacy Skills Test.
6. Any departure from the prescribed program of study for teacher licensure must have Waiver Committee approval prior to advancement to Stage II.

## Stage II: Admission into Secondary School Education Minor

1. Upon satisfactory completion of Stage I requirements, the student is eligible to apply for formal admission into the Secondary School Education minor. The application must include MTEL test results and transcripts of all previous course work. Approval by the Education Department is necessary for a student to progress to Stage II.
2. During Stage II, students must complete all of the following courses with a Grade of C+ or higher AND earn cumulative GPA of 2.7. Fieldwork accompanies the following courses (except ED304):

| Code | Title Credit |
| :---: | :---: |
| ED-304 | Best Practices for English Language Learners |
| ED-351 | Exceptionalities and Accommodating Diverse Learners in Secondary Schools |
| ED-353 | Assessment, Adjustment to Practice, and Classroom Management in the Secondary School |
| ED-370 | Methods and Materials in Science, Technology, Engineering, and Mathematics (STEM) At the Middle and Secondary Level |
| or ED-371 | Methods and Materials in Humanities and Social Sciences At the Middle and Secondary Level. |
| ED-383 | Prepracticum Experience in Secondary School (corerequisite with ED 370/ED371) |

3. Students must receive a passing score on the Massachusetts Test for Educator Licensure (MTEL) in their major subject area and communication and literacy skills.

## Stage III: Secondary School Education Minor - Practicum

1. Upon satisfactory completion of Stage II requirements, the student is eligible to apply for. ED 480 Practicum in Teaching Secondary School (9 credits), ED-424 (3 credits)
2. Students must have received a passing score on the Massachusetts Test for the Educator Licensure (MTEL) in Communication and Literacy Skills and the subject matter area.
3. The Stage III application will be acted upon by the Licensure Officer.
4. Students must have attained senior standing (90 credits of course work) to student teach.
5. Students convicted of a felony may be denied admission to student teaching.

Additional information regarding formal application into student teaching is available from the Education
Department.

## Environmental and Sustainability Studies

STEWARDSHIP MATTERS

Environmental and Sustainability Studies (ESS) is a multidisciplinary and interdisciplinary minor that offers students the opportunity to explore and critically examine issues related to the environments we share with other humans and with other species. Students have the opportunity to consider how the scientific, social, cultural, cognitive, intellectual, and spiritual dimensions of human-ecological relationships relate to the natural world and how these relationships affect the well-being of human, non-human, and shared communities alike. In addition, students develop the tools to form, evaluate, and act upon environmental questions at the local, national, and global levels.

## PROGRAM MISSION

The mission of the ESS program is to bring together faculty and students to explore human-environment relationships. Environmental degradation produced by human activity poses an existential threat to humans and other-than-humans. Communities around the world are creating alternative social, political, economic, and ethical structures and worldviews to transition to a just and sustainable future. The ESS Program prepares students to become part of this transformation.

Students who choose a minor in ESS will:

1. Understand the critical urgency of threats to our ecological communities and systems,
2. Deepen their understanding of the connections between individual and community well-being and the integrity of the places we inhabit,
3. Deconstruct systems of privilege and power to examine how they threaten natural systems and environments,
4. Explore the rich variety of existing practices and perspectives that represent sustainable alternatives to dominant socio-economic structures,
5. Focus on the interconnected socio-cultural, economic, political, and ethical systems that lead to environmental degradation and/or environmental sustainability,
6. Explore sustainable alternatives to human ecology and communities,
7. Reflect on the meaning of being human in a more-than-human world, and
8. Engage in community stewardship projects and/ or creative expression that combines environmental theory and practice.

## Requirements for Minor in Environmental and Sustainability Studies ( 18 Credits)

The Environmental and Sustainability Studies (ESS)
Minor requires a minimum of six courses ( 18 credits)

- At least one 100 Introductory Level Course (3-9 credits)
- A prerequisite for an ESS designated course (CH 106, EC 110 or EC 120, EV 150, GE 102, GS 101,SO 100, UR 101)
and/or
- A First Year Seminar or Special Topics in Interdisciplinary Studies with ESS Coordinator and Interdisciplinary Studies Department Chair Approval
- At least two elective Environmental and Sustainability Studies courses at 200 level (6-12 credits)
- At least one elective Environmental and Sustainability Studies course at the 300 level or higher (3-9 credits)
- At least one course that incorporates an action or creative component.
- Course may be in any department, but must be approved by ESS Coordinator and Department Chair
- Course must be at 200 level or above and can count towards total of electives
- Criteria for meeting the action or creative component include:
- Design alternatives
- Engage in community service and environmental action (i.e.: policy brief, internship, volunteer, service learning)
- Produce creative work (i.e.: writing, visual or musical piece, performance, PR, video/podcast)

Students can take at most 8 credits from any one department to count towards the minor.

A maximum of two courses at the 200 level or above can come from any single department
*If the Environmental and Sustainability Studies Minor is part of a Liberal Studies Major, this maximum does not apply.

Environmental and Sustainability Studies is an interdisciplinary program drawing from the faculty of many departments at Worcester State University.

Any students with questions can contact the Office of Academic Affairs at 508-929-8938 or the Interdisciplinary Studies Department.

## Elective Courses

EN-230 Environmental Literature
LASC Categories: CA, ICW
This course will focus on how environmental writers challenge and change how we perceive human ecological relationships to the natural world. We will address the following questions: How have writers challenged us to think about our place in a shared world and our responsibilities toward our ecological communities? How have writers attempted to awaken us to our connections to the natural world and the non-human other? How do these connections feed our mind, body, and spirit? We will also consider their warnings of what happens when we ignore our ecological selves, our ecological communities, and our ecological responsibilities.
Every 2-3 years. 3 Credits
GE-258 Global Environmental Change
Prerequisites: GE-102 or GL/GE-102 or GS-101 or GL-150 or EV-150 or UR-101 or CH-106
An introduction to the science, political economy and ethics of global environmental change.
Every year. 3 Credits

GE-285 Sustainable Communities
LASC Categories: HBS, USW
Prerequisites: GE-102 or GL/GE-102 or GL-150 or EC-110 or EC-120.
Exploration of changes in U.S. and global economic landscape, 1970 to present. Approaches to sustainable economic development.
Every 2-3 years. 3 Credits

## GE-307 American Public Lands: Environmental Issues

Prerequisites: GE-258 or permission of instructor. Exploration of the environmental management issues on U.S. public lands such as national parks, national forests BLM lands.
3 Credits

## GE-312 Sustainable Food Systems

Prerequisites: GE-102 or a 200 level GE, GS, SO or UR course.
Overview of the structure, evolution, costs and benefits of the global food system. Exploration of local and global alternatives.
Every 2-3 years. 3 Credits

## GE-342 Sustainable Housing And Techniques

Prerequisites: GE-130 or GE-240
Principles of green design with an emphasis on building construction. Material and energy flows, choice of materials, designing for sustainability. 3 Credits

HE-390 Environmental Health
Prerequisites: HE-100 or HC-201
Examination of the issues affecting the environment and their impact on our health.
Fall and Spring and every year. 3 Credits
UR-360 Environmental Systems and Public Policy Prerequisites: UR-101
Examination of urban ecosystems, focusing on land uses designed to effectively utilize water, open space, and other natural resources.
Other or on demand. 3 Credits

## UR-361 Public Policy and Environmental Issues

 Prerequisites: UR-101Investigation of the factors that determine the formation of public policy on the environment with consideration of the roles played by state and federal regulatory agencies.
Other or on demand. 3 Credits

## Ethnic Studies

The Ethnic Studies minor and concentration are interdisciplinary programs focused on the experiences of historically marginalized racial and ethnic groups (including African, Latina/o, Asian, and Native Americans) within the United States. Ethnic Studies promotes a broader understanding of the historical, geographical, political, economic, social, and cultural complexity of these racial/ethnic groups, and the structural inequality in which these groups' experiences are maintained and embedded.

Ethnic Studies courses often explore the rich contributions to the production of knowledge issuing from various racial/ethnic groups in the US that tend to be underrepresented in the curriculum, for example, in sciences, social sciences, arts, humanities, and the professions. Based on a discipline emerging out of civil rights movements, Ethnic Studies courses also often explore historical and contemporary social movements and encourage active and reflective learning in the pursuit of racial and social justice. The curriculum emphasizes creating a community within the classroom where students learn from one another, experience personal empowerment, and develop as agents of racial and social justice in a diverse and complex world. As a result, students develop a heightened racial, ethnic, and social consciousness toward promoting a more just and equitable society.

Ethnic Studies Minor (18 credits):
ET-100 Introduction to Ethnic Studies (3 credits)
Five elective Ethnic Studies (ETH) courses (15 credits)

- At least one elective course must be at the 300 level or higher
- A maximum of two elective courses can come from the student's major*
- A maximum of four elective courses can come from any single department
*If the Ethnic Studies Minor is part of a Liberal Studies Major, this maximum does not apply.

Ethnic Studies Concentration ( 15 credits):

- Offered as an interdisciplinary concentration
- 15 credits total across at least two disciplines
- Required course (3 credits): ET-100: Introduction to Ethnic Studies
- Core Courses (12 Credits): Chosen from approved list of electives across departments


## Faculty

As an interdisciplinary concentration, Ethnic Studies draws faculty from multiple disciplines across the campus. Each faculty member's information can be found at the respective department that offers each of the courses. Additionally, the Ethnic Studies Program seeks to build linkages between Academic Affairs and Student Affairs to support students' academic success and the enrichment of the campus culture.

## Required Course

## ET-100 Introduction to Ethnic Studies

LASC Categories: TLC, HBS, DAC
An interdisciplinary survey course analyzing sociopolitical, economic, historical and contemporary issues related to African American, Latino/a American, Asian American and Native American (ALANA) communities. Every year. 3 Credits

## Elective Courses

In addition to the courses listed below, departments frequently offer special topics courses that qualify as Ethnic Studies electives.

## ED-270 Diversity \& Multicultural Ed

LASC Categories: DAC, DIV
Prerequisites: ED 149 OR ED 150 Take ED-207 ED 251
must be taken concurrently or before ED 270
Prerequisites or Corequisite: ED-251 previously or concurrently.
Introduction to multicultural education, equity and social justice issues in education including a focus on race, ethnicity, languages, class, gender, gender identity, sexual orientation, and disabilities. Fall and Spring and every year. 3 Credits

## ED-339 Children's Literature: Multicultural Literature for PK-9 <br> LASC Categories: HBS, TLC, DAC, DIV <br> Prerequisites: EN-102 or EN-202

In this class, students will read, discuss, and analyze children's and young adult literature by people of diverse backgrounds including diversity in race, ethnicity, class, gender, sexual orientation, ability, language, and country. Genres and formats may include fiction, nonfiction, biographies, novels in verse, graphic novels, fairy tales, fantasy, and wordless books. While children's and young adult literature will comprise the primary texts in this course, secondary sources from education, linguistics, English, history, sociology, anthropology, women's studies and communications will provide context and theory to guide analysis Fall and Spring and every year. 3 Credits

## EN-120 Race in Comics

LASC Categories: TLC, USW, DAC, DIV
Comics offers a unique combination of tools for representing race. Artists have long used either language or visual art to think about identity, but comics merges the two in new ways. In this course, students analyze innovative comics and graphic novels/nonfiction to better understand why this medium is such a productive way to reflect on racial identity. How do comics authors engage with the difficult history of racial caricature and the longstanding lack of diversity in the field? And what can the combination of image and text say about the tension between appearance and identity?
Every 2-3 years. 3 Credits

## EN-169 Ethnic Literature in the U.S.

LASC Categories: USW, TLC, DAC
Study of ethnic literature in the U.S., focusing on African- American, Asian-American, Latino, and Native-American writers.
Fall and Spring. 3 Credits

EN-170 Search for Identity
LASC Categories: DAC, TLC, DIV
This course is designed to explore the topic of identity in literature, which may include gender, race, ethnicity, philosophy, body image, physical ability/disability, etc. The course will examine each literary text for the relative importance of the various aspects of identity for each author/character and the intersectionality of identity. Questions to consider will include: which identity is prioritized (by the individual and by society) in any given situation? What or who determines which aspect of identity is prioritized at different moments? How do conflicts in identity for an individual get resolved?
Other or on demand. 3 Credits
EN-328 Narratives of U.S. Immigration
LASC Categories: TLC, USW, DAC, WAC
Prerequisites: EN-102 or EN-202
In this course students examine narratives of United States immigration in literature, film, and history. The immigrant narrative is both a foundational American story and also a story of the outsider to American culture. Students explore how authors navigate these conflicting poles, and how they complicate myths of the U.S. as a melting pot and land of opportunity. Topics for discussion include: assimilation and pluralism; citizenship, class, ethnicity, gender, language, nationality, race, and religion; diaspora; labor; nativism and xenophobia; and the social, legal, and political history of American immigration.
Every 2-3 years. 3 Credits

## EN-347 Studies in U.S. Ethnic Literature <br> LASC Categories: USW

Prerequisites: EN-102
Selected topics in U.S. ethnic literature, including thematic and comparative approaches, and in-depth studies of a single ethnic literature.
Every 2-3 years. 3 Credits

## EN-370 Antislavery Literature

LASC Categories: TLC, USW, DAC, WAC, DIV
Prerequisites: EN-102 or EN-202 or EN-250
This course traces the literary history of the antislavery movement in the Atlantic World: writing in a range of genres, antislavery writers made a significant contribution to the campaigns to end the slave trade and slavery. These texts also shaped the history and memory of legal enslavement and its aftermath. While the Atlantic system of legal slavery ended in the nineteenth century, an even larger system of illegal slavery still exists, and so the course concludes by considering the work of contemporary antislavery writers and what they might learn from their predecessors.
Fall only and every 2-3 years. 3 Credits

## ET-100 Introduction to Ethnic Studies

LASC Categories: TLC, HBS, DAC
An interdisciplinary survey course analyzing sociopolitical, economic, historical and contemporary issues related to African American, Latino/a American, Asian American and Native American (ALANA) communities.
Every year. 3 Credits
HC-234 Multiculturalism and Health
Examination of diverse ethnic/racial and cultural beliefs beliefs and practices affecting health and illness
Spring only and every year. 3 Credits

## HI-205 Native America

LASC Categories: TLC, USW, DIV, DAC
This survey covers the broad sweep of Native American history and focuses on the encounter between American and European civilizations and how Native culture has adapted through the centuries. Counts for Europe/US in the History Major. Every 2-3 years. 3 Credits

## HI-208 American Immigrant History

Survey of immigration. Topics such as old-world background, impact on the United States, nativism, cultural pluralism, religion, mobility, family and politics. Counts for Europe/United States in the History major.
Every year. 3 Credits

## HI-217 US Social History

LASC Categories: TLC, USW, WAC, DIV, DAC
Considers topics and approaches in the field of social history in the United States. Counts for Europe/US in History major. [Applicable to Women's, Gender, and Sexuality Studies Minor.]
Every 2-3 years. 3 Credits

## HI-221 African-American History I

The people of African descent from the emergence of the slave trade to the Civil War, focusing on race, gender, and power. Counts for Europe/United States in the History major.
Every year. 3 Credits

## HI-222 African-American History II

The people of African descent from the end of the Civil War through the twentieth century, focusing on race, class, gender, and power. Counts for Europe/ United States in the History major.
Every year. 3 Credits

## HI-230 Nicaragua, the US and the World

LASC Categories: DAC, TLC, USW
The course will examine the impact of globalization and imperialism on the lives of Nicaraguans at home and in their diasporic communities. Counts for Africa/Latin America in the History major.
Spring only and every year. 3 Credits

## HI-248 Seminar on Globalization \& Human Rights <br> LASC Categories: USW, GP, DAC

A.I.D. program participants in their sophomore year will explore globalization and human rights and issues of personal growth and academic development. Counts for Global/Thematic/ Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-280 Introduction to African Diaspora History LASC Categories: TLC, GP, DAC

Students will learn about the development of the African diaspora and how it has shaped the world since antiquity. We will consider the movements, experiences, and exploits of ordinary people and celebrated figures of African descent through such topics as imperial expansion; slavery, resistance, and freedom; nationalism and the civil rights movement; and current global issues. Counts for Global/ Thematic/Methodological in the History major. Alternating and every 2-3 years. 3 Credits

HI-320 Citizen Nation<br>LASC Categories: CON, USW, WAC, DIV, DAC<br>Prerequisites: EN-102 or EN-202.<br>Explores the history and meaning of citizenship in the United States, including discrimination, rights struggles and changing citizenship criteria. Counts for Europe/US in History major. [Cross-listed with PO-320.]<br>Fall only and every 2-3 years. 3 Credits

## HI-373 African Immigration in the 20th Century LASC Categories: GP, TLC, DAC

Prerequisites: Writing II
Why do we commonly hear about a "brain drain" in African countries or human rights violations of refugees entering Europe? This course examines how these current global issues developed through the history of immigration from the African continent to North America and Europe during the 20th century. Counts for Global/Thematic/Methodological in the History major.
Other or on demand and every 2-3 years. 3 Credits
PH-151 Race, Gender, and the Law
LASC Categories: TLC, USW, CON, DIV
This course provides a philosophical approach to issues of race and gender as expressed in legislation, judicial interpretation, enforcement, and public policy. Every 2-3 years. 3 Credits

## PH-178 Africana Philosophy

LASC Categories: TLC, USW, DAC
Explores the philosophy of the African diaspora in African, African American and Caribbean writings. The course addresses both historical and contemporary material across intersections of race, gender, and class using philosophy, history, and literature.
Every 2-3 years. 3 Credits

## PH-254 Feminist Theory

LASC Categories: HBS, USW, DAC, DIV
Feminist Theory: Examines the development of feminist ideas and movements from the 18th century to the present, in the US and, particularly in recent decades, globally. A close analysis of Second Wave, Postmodern, and Black Feminist ideas are studied as a basis for writings and social action that attends to issues of race, class, gender, and sexuality, using intersectional methodologies and critiques to address issues of reproduction and health, labor and economic power, violence, and state power. Other or on demand and every year. 3 Credits

## PO-265 Racial and Ethnic Politics

LASC Categories: HBS, USW, DAC
This class will analyze the relationship between the United States government and racial and ethnic groups and explore the way that race is utilized in American politics. We will focus on issues affecting racial and ethnic communities in the United States, the politics behind racial and ethnic classification, and the use of racial and ethnic appeals in American political campaigns. The readings for this course will cover topics such as affirmative action, criminal justice reform, and civil rights. It will offer students an opportunity to analyze political speeches and advertisements that utilize race and ethnicity. Every 2-3 years. 3 Credits

## PO-320 Citizen Nation

LASC Categories: CON, USW, DAC, WAC, DIV Prerequisites: EN-102 or EN-202.
Explores the history and meaning of citizenship in the United States, including discrimination, rights struggles and changing citizenship criteria. [Crosslisted with $\mathrm{HI}-320$.]
Other or on demand. 3 Credits
PS-255 Psychological Foundations of Diversity Prerequisites: PS-101 with a C- or above. Explores the gender, racial/ethnic, multiple-group membership, cultural, social class, religious, disability and sexual orientation facets of diversity. Other or on demand and every year. 3 Credits

## SO-228 Latinx Experiences in the U.s. and the World LASC Categories: TLC, USW, DAC, DIV

This course surveys current theoretical approaches used to explain Latina/o experiences and provides an empirical overview of how social institutions affect the daily lives of Latinas and Latinos in the U.S. and the world.
Other or on demand. 3 Credits

## S0-285 Race, Class and Gender

LASC Categories: HBS, DAC
An introduction to dominant-minority group relations through the investigation of the patterns and dynamics of differentiation, inequality and discrimination.
3 Credits

## SP-333 Hispanic Presence in US

LASC Categories: GP, USW, DAC
Prerequisites: SP-321
Socio-cultural study of Hispanics in the United States, with a focus on major contemporary issues.
Conducted un Spanish. [Prerequisites: Two SP 200
level courses.]
Fall only and every year. 3 Credits

## SP-349 Spanish-American Literature

Prerequisites: SP-321
Representative works from South and Central American authors from the colonial period to the present.
Fall only and every 2-3 years. 3 Credits

## Gerontology Minor

Through the Interdisciplinary Minor in Gerontology students will explore issues and topics related to aging in today's society. Students will benefit from a broad knowledge base drawn from a selection of courses from departments across the university including the social and natural sciences and humanities. Gerontology incorporates an understanding of psychological, social, and biological changes across the lifespan and their effect on policy and the economy. The Gerontology minor will prepare students interested in working directly with older adults and their caregivers through their major field of study (e.g. nursing, occupational therapy) as well as those interested in policy, community services, human services, and business.

Students must take the 4 required courses and 2 electives. At least 1 course must be at 300 -level or higher.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Introductory Course |  |  |
| IS-160 | Introduction to Gerontology | 3 |
| Development of Aging Course |  |  |
| $\begin{aligned} & \mathrm{BI}-266 \\ & \text { or PS-322 } \end{aligned}$ | Biology of Aging <br> Psychology of Aging | 3 |
| Health Policy Course |  |  |
| Take one of th | ourses: | 3 |
| PO-312 | Health Politics and Policy |  |
| HC-220 | Health Policy |  |
| HC-345 | Introduction to the U.S. Health Care System |  |

Experiential Learning Course
Take one from these courses:


Total Credits
18
***A single semester of UR 142/242, UR 315, \& PS 400/SO 410/UR 450 can only be used to fulfill either the experiential learning requirement or an elective. Students can opt to take UR 142/242 or PS 400/ SO 410/UR 450 more than once to fulfil more than 1 requirement.

## Global Studies

## Global Studies Concentration

Global Studies is an interdisciplinary academic area that draws from a wide range of disciplines in the Humanities, the Sciences and the Arts to examine global processes and events and their effects at a local level. For decades, the world has been undergoing a sustained reorganization along economic, social, political, cultural, technological and environmental lines that cuts across national boundaries. WSU has also experienced an increased global connectivity, integration and interdependence, and witnessed the emergence of planet-wide issues such as climate change, poverty, new technologies, and entrenched wars. In response to these real-world
events, Global Studies has emerged as a dynamic interdisciplinary academic field to study the forces shaping these complex processes.

The mission of the Global Studies concentration is to help students understand trans-national phenomena and to provide them with a solid background for decision-making in an increasingly interdependent world community. Students are encouraged to connect their knowledge of a particular region of the world to larger transnational processes and to examine their identities in a global frame. The interdisciplinary concentration in Global Studies helps students develop skills to function in a global market and the depth of understanding necessary to be responsible citizens of planet Earth.

## Requirements for a Concentration in Global Studies: 15 credits

Students are required to take a total of five Global Studies courses starting with GL-150 (Required) plus four electives chosen from across various disciplines. One of the elective courses has to be at a 200 level and another at either a 300 or 400 level. No more than two courses can be counted from the same department. Students are strongly encouraged to elect a world language course other than English and/or a study abroad course that meets the Global Studies criteria.

Global Studies is an interdisciplinary program drawing from the faculty of many departments at Worcester State University. For more information, students may contact the Coordinator of Global Studies.

## Required Course

## GL-150 Introduction to Global Studies

This course analyzes the forces reorganizing the planet along economic, social, political, cultural, technological and environmental lines across national boundaries.
Every year. 3 Credits

## Elective Courses

AB-102 Beginning Arabic II
LASC Categories: TLC
Prerequisites: AB-101
A continuation of $A B$ 101, designed for students to acquire additional vocabulary, grammar, and reading ability.
3 Credits
AB-210 Intermediate Arabic I
LASC Categories: TLC
Prerequisites: AB-102
Instruction in advanced rules of Arabic grammar and verb system, and in advanced writing and reading. 3 Credits

## AR-118 Global Art History

LASC Categories: GP, DAC, CA
Surveys the outstanding visual art from all cultures beginning in the prehistoric era to the late 19th century.
Fall only and every year. 3 Credits
BA-430 Administrative Practices and Management Prerequisites: BA-305
Overview and analysis of human conduct in workorganization settings. 3 Credits

## BA-440 International Business and Management

 Prerequisites: BA-316 and BA-318Study and analyze the nature, structures and strategies of international/global businesses. Examine international markets, economic systems, value-chains and core competencies of a firm. 3 Credits

BA-494 International Marketing
Prerequisites: EC-120 BA-318
With the rapid and continuous changes in global environment we will examine the complex issues in international marketing faced by today's manager. 3 Credits

BI-112 Diseases and Mankind
LASC Categories: GP, NSP
Diseases of ancient and modern man; the impact on history, religion, science, art and philosophy.
Every 2-3 years. 3 Credits

## BI-114 Plants and Human Affairs <br> LASC Categories: GP, NSP

Man's dependence upon plants and their influence on civilization and its art, religions, literature, folklore, medicine, and human behavior.
Every 2-3 years. 3 Credits

## BI-117 Humans and the Environment LASC Categories: LAB, NSP

A survey of Anthropologic environmental impacts and the underlying mechanisms involved. Three lecture hours and three laboratory hours per week. Not open to Biology or Environmental Science majors.
Every 2-3 years. 4 Credits

## BI-130 Field Biology

LASC Categories: GP, NSP, LAB
Study-Abroad Field Biology course for non-Biology majors. Course explores the intersection of human activities and environmental preservation, with a basic introduction to topics in organismal biology, biodiversity and biogeography. Spring only and every year. 4 Credits

## BI-202 Principles of Ecology

LASC Categories: NLL, WAC
Prerequisites: $\mathrm{BI}-140, \mathrm{EN}-102, \mathrm{MA}-150$ or MA-180, or MA-190, or MA-200 with a grade of C- or above. Basic ecological theory relating to organismenvironment interactions; population dynamics, and ecosystems. Three hours of lecture and a three-hour laboratory per week.
Fall and Spring and every year. 4 Credits

## $\mathrm{BI}-380$ Biodiversity and Conservation Biology LASC Categories: LAB

Prerequisites: $\mathrm{BI}-140, \mathrm{BI}-141, \mathrm{BI}-202$, and $\mathrm{BI}-203$ with a grade of C - or above.
A theoretical and quantitative approach to species, genetic, ecosystem and community diversity in the context of modern conservation biology principles. Three lecture hours and three laboratory hours per week.
Every 2-3 years. 4 Credits

## BI-430 Field Biology

Study-Abroad Field Biology course for Biology majors. Course explores the intersection of human activities and environmental preservation, with an in-depth discussion of topics in organismal biology, ecology, biodiversity and biogeography. Spring only and every year. 4 Credits

## CH-106 Paper Or Plastics?

LASC Categories: NSP
Students will study modern issues related to chemistry. These will include sustainability, green chemistry, climate change and the ozone layer. Every year. 3 Credits

## CH-320 Environmental Chemistry <br> LASC Categories: NLL

Prerequisites: $\mathrm{CH}-120$ and $\mathrm{CH}-121$ with a C - or above.
Chemistry of the atmosphere, soil, and natural water systems, air and water pollution, water treatment, hazardous wastes and pollution control. Lab techniques including sampling and analysis of environmental media. Lecture 3 hours per week and Lab will meet once a week for 3 hours.
Fall only and every year. 4 Credits

## CM-350 Intercultural Communication

Prerequisites: CM-100
Introductory communication theory and practice across cultural groups defined by race, ethnicity, gender, religion, age, nationality, politics and economics.
3 Credits
CM-390 Independent Media and Society
LASC Categories: TLC, DAC
Prerequisites: CM-100
This course introduces students to the theory and practice of wide range of media economically and politically independent of both corporation and the state. The course focuses on the relationship between independent media and corporate media as well as the role of independent media within social movements, cultures of resistance, and processes of social change.
Other or on demand and other or on demand. 3 Credits

## EC-206 Urban Economics

Prerequisites: EC-110 and EC-120
The theory and policy of the growth and development of metropolitan areas; some of the policy-related problems discussed are poverty, residential and commercial land use and traffic congestion.
3 Credits

## EC-210 Current Economic Issues

Prerequisites: EC-110 EC-120
This course is designed to connect economic knowledge and theory acquired at the introductory level to current economic issues and policy. National and international topics of importance will be considered. For example, pollution, trends in productivity, profitability and distribution, debt and deficits, patterns of investment, trade, and globalization and the economic issues of race, gender and poverty may be covered.
3 Credits

## EC-301 Economic Development

Prerequisites: EC-110 and EC-120
A survey of contemporary economic theories concerning less developed countries; social, cultural, and political forces shaping the development of such countries are also investigated.
3 Credits

## EC-308 International Trade <br> LASC Categories: GP

Prerequisites: EC-110 and EC-120
Reasons why nations gain by spatial specialization and exchange with other countries. Analysis of the mechanism by which international equilibrium is restored. Study of trade and foreign exchange policies.
3 Credits

## ED-271 International and Comparative Education LASC Categories: ICW, GP

This course compares the educational policies, practices and coutcomes in two or more countries. 3 Credits

## ED-339 Children's Literature: Multicultural Literature for PK-9

LASC Categories: HBS, TLC, DAC, DIV
Prerequisites: EN-102 or EN-202
In this class, students will read, discuss, and analyze children's and young adult literature by people of diverse backgrounds including diversity in race, ethnicity, class, gender, sexual orientation, ability, language, and country. Genres and formats may include fiction, nonfiction, biographies, novels in verse, graphic novels, fairy tales, fantasy, and wordless books. While children's and young adult literature will comprise the primary texts in this course, secondary sources from education, linguistics, English, history, sociology, anthropology, women's studies and communications will provide context and theory to guide analysis
Fall and Spring and every year. 3 Credits
EN-132 World Literature
LASC Categories: GP, DAC, TLC, DIV
The course examines the major authors in world literature from ancient to modern times; however, in a given semester the course may focus on one particular time period. All areas of the world are covered, including such areas as Africa, Europe, the Americas. An emphasis will be put on cultural, sociological, historical, and philosophical influences on the literature. Such authors may be included as Chinua Achebe, Pablo Neruda, Bei Dao, Salman Rushdie, Nadine Gordimer, Edwidge Danticat, and Bessie Head.
Fall and Spring and every year. 3 Credits

## EN-167 Literature and Human Rights

LASC Categories: GP, DAC, DIV
The course examines writing about human rights, including memoirs and novels, and examines issues of social justice. Violations of human rights that may be addressed include genocide, political repression, and torture; while social justice issues that may be examined include women's rights, justice and punishment, disability rights and methods of protesting for human rights. The course will examine definitions of human rights as well as reparations and living with the aftermath of human rights violations.
Fall and Spring and every 2-3 years. 3 Credits
EN-169 Ethnic Literature in the U.S.
LASC Categories: USW, TLC, DAC
Study of ethnic literature in the U.S., focusing on African- American, Asian-American, Latino, and Native-American writers.
Fall and Spring. 3 Credits

EN-240 Survey of Postcolonial and Transcultural
Literature
LASC Categories: GP
Prerequisites: EN-102
Introduction to literatures in English from formerly colonized countries in Africa, Asia, and the Caribbean, and from the postcolonial diaspora.
Every year. 3 Credits
EN-348 Postcolonial Women's Writing
LASC Categories: GP
Prerequisites: EN-102
Writing by women from colonized and formerly colonized countries on local and global issues shaping women's lives and creative expression. Every 2-3 years. 3 Credits

EV-320 Environmental Chemistry LASC Categories: NLL
Prerequisites: $\mathrm{CH}-120$ and $\mathrm{CH}-121$ with a grade of C or above.
Chemistry of the atmosphere, soil, and natural water systems, air and water pollution, water treatment, hazardous wastes and pollution control. Lab techniques including sampling and analysis of environmental media. Lecture 3 hours per week and Lab will meet once a week for 3 hours. [Cross-listed with $\mathrm{CH}-320$.]
Fall only and every year. 4 Credits
FR-210 Intermediate French I
LASC Categories: TLC, GP
Prerequisites: FR-102
Review of fundamentals and presentation of more complex grammatical features; development of conversational skills; selected readings; written and oral composition.
Fall and Spring and every year. 3 Credits
FR-211 Intermediate French II
LASC Categories: TLC, GP
Prerequisites: FR-210
Continuation of FR210.
Fall and Spring and every year. 3 Credits
FR-321 Advanced French Composition I
LASC Categories: TLC, WAC
Prerequisites: EN-102 or EN-250 or EN-202
Practice in diverse composition styles as well as review of grammar, and introduction to reading French texts. Conducted in French. [Prerequisite: Two 200-level French courses.]
Other or on demand. 3 Credits

## FR-323 Advanced French Conversation <br> LASC Categories: TLC

Prerequisites: FR-211 or any 300 level French course.
Development of fluency and accuracy, free discussions, prepared oral presentations, practical exercises in oral expression. Conducted in French. Spring only and other or on demand. 3 Credits

## FR-331 General French Civilization

LASC Categories: TLC
Prerequisites: 6 credits department FR At level 200;
Significant aspects of French history, geography,
cultural achievements to world War I. Conducted in
French. [Prerequisite: Two FR 200 level courses or equivalent.]
Other or on demand. 3 Credits
FR-341 Introduction to French Literature
LASC Categories: TLC, GP, DAC
Prerequisites: 6 credits department FR At level 200;
Major periods and genres of French literature;
for majors and minors. Conducted in French.
[Prerequisites: Two FR 200 level courses or equivalent.]
Other or on demand. 3 Credits

## FR-342 Survey of French Literature I

LASC Categories: TLC
Prerequisites: 6 credits department FR At level 200; Selections from the epic, drama, lyric poetry, and the major prose writers to major authors of the classical period. Conducted in French. [Prerequisite: Two FR 200 level courses or equivalent.]
Every 2-3 years. 3 Credits

## FR-344 Survey of French Literature II

LASC Categories: TLC
Prerequisites: 6 credits department FR At level 200;
Major authors of the eighteenth and nineteenth centuries. Conducted in French. [Prerequisites: Two FR 200 level courses.]
Every 2-3 years. 3 Credits

## FR-346 Twentieth Century French Literature

LASC Categories: TLC, GP
Prerequisites: 6 credits department FR At level 200; Major novelists, dramatists and poets from the turn of the century to the present. Conducted in French.
[Two FR 200 level courses or equivalent.]
Other or on demand. 3 Credits

## GE-102 Human Geography <br> LASC Categories: GP, HBS

Introduction to human geography, emphasizing globalization, human-environment relations, and spatial patterns of population, development, economics, politics, urbanization and culture. Fall and Spring and every year. 3 Credits

## GE-255 Geography of Africa <br> LASC Categories: DAC, GP

Prerequisites: GE-102 or GE-111 or GL/GE-102 or GL/ GE-111 or GL-150 or SO-100 or SO-110 or UR-101 Analysis of the physical and human geography of Africa.
3 Credits
GE-258 Global Environmental Change
Prerequisites: GE-102 or GL/GE-102 or GS-101 or GL-150 or EV-150 or UR-101 or CH-106
An introduction to the science, political economy and ethics of global environmental change.
Every year. 3 Credits

## GE-285 Sustainable Communities

LASC Categories: HBS, USW
Prerequisites: GE-102 or GL/GE-102 or GL-150 or EC-110 or EC-120.
Exploration of changes in U.S. and global economic landscape, 1970 to present. Approaches to sustainable economic development.
Every 2-3 years. 3 Credits

## GL-150 Introduction to Global Studies

This course analyzes the forces reorganizing the planet along economic, social, political, cultural, technological and environmental lines across national boundaries.
Every year. 3 Credits

## HC-202 Introduction to Global Health

LASC Categories: GP, ICW, DIV, DAC
The course introduces students to the main concepts of public health and the critical links between public health and social and economic development. Students get an overview of the determinants of health, how health status is measured, and the influences of various factors, including cultural, historic, geographic, social, economic, and political issues on the health of individuals and communities. The course also introduces students to key concerns regarding nutrition, reproductive health, infectious disease, and chronic diseases. The course will be global in coverage but with an important focus on the developing world and on the health of the poor. Fall and Spring and every year. 3 Credits

## HC-228 Health Ethics

Prerequisites: HE-100 or HC-201
Ethical issues in health including genetic research, euthanasia, medical intervention and reproductive technologies as well as professional ethics. Fall and Spring and every year. 3 Credits

## HC-340 Global Perspective in Public Health LASC Categories: GP, ICW

Seminar course for students accepted into a global service learning trip during the academic year. It is designed to prepare students through curriculumbased learning, the components of service learning; ethical partnering with vulnerable communities, and the cultural/historical/political and economic factors that impact health and healthcare policies within the population where immersion takes places. There will be self-reflection and integration of learning through journal writing, critical thinking and exercises formal preparation for service in the host country and final paper at the end of the semester.
Other or on demand and every year. 3 Credits

## HE-390 Environmental Health

Prerequisites: HE-100 or HC-201
Examination of the issues affecting the environment and their impact on our health.
Fall and Spring and every year. 3 Credits

## HI-103 Connecting Ancient Worlds: World History to 1500

LASC Categories: GP, TLC
Surveys economic, social, political and intellectual developments of global societies and their interrelationship from ancient times to 1500. Counts for Global/Thematic in the History major.
Fall and Spring and every year. 3 Credits
HI-104 Age of Empires: World History 1500 to the Present
LASC Categories: GP, TLC
Surveys economic, social, political, and intellectual development of global societies world civilizations and their inter relationship from 1500 to the present. Counts for Global/Thematic in the History major. Fall and Spring and every year. 3 Credits

## HI-105 Modern World History

LASC Categories: GP, TLC
Surveys economic, social, political, and intellectual development of global societies and their interrelationship from 1914 to the present. Counts for Global/Thematic in the History major.
Fall and Spring and every year. 3 Credits

## HI-204 History of Science and Technology LASC Categories: GP, TLC, WAC

Progress of science since the Enlightenment, including applied science or technology from the 19th century. Counts for Global/Thematic/ Methodological in the History major.
Every year. 3 Credits

## HI-208 American Immigrant History

Survey of immigration. Topics such as old-world background, impact on the United States, nativism, cultural pluralism, religion, mobility, family and politics. Counts for Europe/United States in the History major.
Every year. 3 Credits

## HI-213 Colonial Latin America

The People of Latin America from Pre-Columbian societies to the wars for independence, focusing on race, sex and power. Counts for Africa/Latin America in the History major.
Every 2-3 years. 3 Credits

## HI-214 Modern Latin America

LASC Categories: TLC, GP, DAC
The people of Latin America from independence to the present, focusing on race, sex and power. Counts for Africa/Latin America in the History major. Every 2-3 years. 3 Credits

## HI-216 Economic History of the United States

An introduction to United States economic development; particular attention will be paid to industrialization and the labor force. Counts for Europe/United States in the History major. Every 2-3 years. 3 Credits

## HI-221 African-American History I

The people of African descent from the emergence of the slave trade to the Civil War, focusing on race, gender, and power. Counts for Europe/United States in the History major.
Every year. 3 Credits
HI-226 Latin American History Through Film This course will explore how filmmakers have portrayed Latin American History in their movies. Counts for Africa/Latin America in the History major. Every 2-3 years. 3 Credits

HI-230 Nicaragua, the US and the World
LASC Categories: DAC, TLC, USW
The course will examine the impact of globalization and imperialism on the lives of Nicaraguans at home and in their diasporic communities. Counts for Africa/Latin America in the History major. Spring only and every year. 3 Credits

## HI-247 Central America and the Caribbean

This survey examines the political, cultural and social history of Central America and the Caribbean from pre-Columbian times to the present with an emphasis on the 20th century. Counts for Africa/Latin America in the History major.
Every 2-3 years. 3 Credits
HI-248 Seminar on Globalization \& Human Rights LASC Categories: USW, GP, DAC
A.I.D. program participants in their sophomore year will explore globalization and human rights and issues of personal growth and academic development. Counts for Global/Thematic/ Methodological in the History major. Every 2-3 years. 3 Credits

## HI-261 Middle East History I

LASC Categories: TLC, GP
The rise and expansion of Islam; the Caliphate; Muslim religion, civilization and its impact on the West, decline of medieval Islam. Counts for Middle East/Asia in History major.
Every 2-3 years. 3 Credits
HI-262 Middle East History li: the Ottoman Empire, 1289-1920
LASC Categories: GP, TLC, WAC
The Ottoman Empire: expansion, institutions, impact on Europe, decline of the Empire. Counts for Middle East/Asia in History major.
Every 2-3 years. 3 Credits

## HI-263 The Modern Middle East, 1900-present LASC Categories: GP, DIV

This course is an invitation to reconsider our preconceived notions about the modern Middle East, by way of introduction to the rich history of the region since 1900. Students will learn about the legacies of the Pan-Arabism in the era of decolonization, the politics of oil in the Gulf, and the rise of authoritarian states (Syria, Iraq). We will focus on histories of violence and the struggles of stateless peoples (Palestinians, Kurds, Armenians) and consider the dynamics of popular uprisings, revolutions and rebellions, both failed and successful ones. Counts for Middle East/Asia in the History major. Every 2-3 years. 3 Credits

## HI-267 US-Latin American Relations <br> LASC Categories: USW, WAC, DAC

This course will analyze the political, economic, social, and cultural impact of the interactions between and among the governments and people of the US and Latin America. Counts for Africa/Latin America in the History major.
Every year. 3 Credits

## HI-270 History of Modern Italy

Study of modern Italy from 1789 to the present. Every 2-3 years. 3 Credits

## HI-276 Jewish History I

This course constitutes a systematic introduction to the Biblical history of the Jewish people down to the 12th century. Counts for Global/Thematic/ Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-277 Jewish History II

History of the Jewish people from Medieval period to early Modernity. Counts for Global/Thematic/ Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-278 African History Before 1800

LASC Categories: GP, TLC, DAC, DIV
An introduction to the history of societies and cultures of Africa up to 1800 . We will consider such topics as Nubian queens in Egypt, the diffusion of Bantu languages, transcontinental trade networks, the spread of Islam and Christianity, the rise of West African empires, and the transatlantic slave trade. Counts for Africa/Latin America in the History major. Alternating and every 2-3 years. 3 Credits

HI-279 African History Since 1800
LASC Categories: GP, TLC, DAC, DIV
An introduction to the history of groups and countries within Africa from 1800 to the early 21 st century. Like the rest of the world, Africa was also changing rapidly during these centuries. Topics include the extraction of wealth, European colonial rule, pan-Africanism, independence and development during the Cold War, and Africa today. Counts for Africa/Latin America in the History major.
Alternating and every 2-3 years. 3 Credits

## HI-280 Introduction to African Diaspora History LASC Categories: TLC, GP, DAC

Students will learn about the development of the African diaspora and how it has shaped the world since antiquity. We will consider the movements, experiences, and exploits of ordinary people and celebrated figures of African descent through such topics as imperial expansion; slavery, resistance, and freedom; nationalism and the civil rights movement; and current global issues. Counts for Global/ Thematic/Methodological in the History major. Alternating and every 2-3 years. 3 Credits

## HI-312 20th Century Europe I

Prerequisites: $\mathrm{HI}-103$ or $\mathrm{HI}-104$
The politics and economics of World War I; the pattern of restlessness between the wars in the rise of dictatorship in Germany, Italy, and Spain; the regimentation of economic control. Counts for Europe/United States in History major.
Every 2-3 years. 3 Credits

## HI-313 20th Century Europe II

Prerequisites: $\mathrm{HI}-103$ or $\mathrm{HI}-104$
Politics and diplomacy of World War II; the dynamics of the rebirth of Europe since VE Day. The effects of total war upon Europe. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-314 20th Century Middle East History

LASC Categories: GP, TLC, DAC
Prerequisites: $\mathrm{HI}-103$ or $\mathrm{HI}-104$ or $\mathrm{HI}-105$ or $\mathrm{HI}-111$ or $\mathrm{HI}-112$ or $\mathrm{HI}-261$
The Young Turk Revolution, division of Ottoman Empire in World War I; rise of new states; the ArabIsraeli conflict. Counts for Middle East/Asia in the History major.
Every 2-3 years. 3 Credits

## HI-322 Nationalism

LASC Categories: GP, HBS, DAC
Examines the theories of nationalism, the development of the modern nation-state, and its effect on global politics. [Cross-listed with PO-322.] Counts for Global/Thematic/Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-323 Empire

Prerequisites: $\mathrm{HI}-103$ and $\mathrm{HI}-104$
Theories and models of colonization, the reaction of colonized peoples, and the way historians analyze imperialism from 1400 to 1920's. [Cross-listed with PO-323.] Counts for Global/Thematic/Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-333 Women in Latin America

Prerequisites: $\mathrm{HI}-213 \mathrm{HI}-214 \mathrm{HI}-226$ or $\mathrm{HI}-247$
Examines the roles of women in diverse societies including Mexico, Brazil and Caribbean nations. Emphasis on the modern period. Counts for Africa/ Latin America in the History major.
Every 2-3 years. 3 Credits

## HI-335 Imperial Crossroads of Modern East Asia LASC Categories: TLC, GP

Examines East Asian history at the crossroads of Chinese, Japanese, Russian and Korean colonial and nationalist movements in a region called Manchuria, presently China's northeast border with Russia, Korea, and Mongolia. Counts for Middle East/Asia within the History major.
Every 2-3 years. 3 Credits

## HI-337 Travels in Asia <br> LASC Categories: TLC, GP

Travels in Asia examines modern East Asian history through the lens of Chinese, Japanese, European, and American travel narratives from the seventeenth through the twentieth centuries. Counts for Middle East/Asia in the History major.
Every 2-3 years. 3 Credits

HI-373 African Immigration in the 20th Century LASC Categories: GP, TLC, DAC
Prerequisites: Writing II
Why do we commonly hear about a "brain drain" in African countries or human rights violations of refugees entering Europe? This course examines how these current global issues developed through the history of immigration from the African continent to North America and Europe during the 20th century. Counts for Global/Thematic/Methodological in the History major.
Other or on demand and every 2-3 years. 3 Credits
HI-375 Popular Music and Performance in Modern Africa
LASC Categories: CA, TLC, DAC
Prerequisites: Writing II
This course looks at changes in popular music in Africa since the late 19th century. Instead of studying the practice of traditional or art music in Africa, students will gain a stronger understanding of the significance of global connections between Africa and other parts of the world by examining the performance of popular music in a variety of spaces, including streets, nightclubs, and ceremonies. Counts for Africa/Latin America in the History major.
Other or on demand and every 2-3 years. 3 Credits

## MU-140 World Music <br> LASC Categories: CA

An introduction to music of various cultures and continents including music of Africa, Asia, Latin America, the Middle East, and India.
Spring only and every 2-3 years. 3 Credits

## MU-222 African Drumming <br> LASC Categories: GP, CA, DAC

An exploration of African music and drumming techniques from the culture of Ghana. Students will develop performance skills and present a public performance during the course of the semester. Every year. 0.5-3 Credits

## NU-357 Global Perspectives in Health <br> LASC Categories: GP, ICW

Interactive course preparing students for global service immersion experience in partnership with host country.
Other or on demand. 3 Credits

## OT-411 Occupational Therapy International Service Learning Experience

Selected areas of interest to students and instruc Other or on demand. 2 Credits

## PH-170 Introduction to Asian Philosophy LASC Categories: GP, TLC, DAC

Introduces and surveys the major philosophical traditions in East-Asia, South-Asia, and South-East Asia. This course will study the different worldviews, conceptions of human nature and the good life from these philosophical perspectives, and where possible, make comparisons with Western philosophies.
Every 2-3 years. 3 Credits

## PH-172 Chinese Philosophy <br> LASC Categories: GP, TLC, DAC

Surveys the philosophies of ancient China, including Taoism, Buddhism, Legalism and the development of the Confucian tradition in China.
Every 2-3 years. 3 Credits
PH-177 Introduction to Latin American Philosophy LASC Categories: GP, TLC, DAC
An introduction to many of the principal texts, thinkers, and debates within Latin American philosophy.
Every 2-3 years. 3 Credits

## PH-178 Africana Philosophy

LASC Categories: TLC, USW, DAC
Explores the philosophy of the African diaspora in African, African American and Caribbean writings. The course addresses both historical and contemporary material across intersections of race, gender, and class using philosophy, history, and literature.
Every 2-3 years. 3 Credits

## PH-241 Genocide and Human Rights <br> LASC Categories: USW, GP, DIV

This course treats the ethical, political, and other dimensions of systematic mass violence through case studies and general theoretical analyses.
Every 2-3 years. 3 Credits

## PH-250 Global Feminisms

LASC Categories: TLC, GP
Investigates the theoretical underpinnings of women's movements for equal rights around the globe.
Every 2-3 years. 3 Credits

## PH-251 Mass Violence Against Women

LASC Categories: USW, GP, DIV
A philosophy-based, interdisciplinary course examining historical and contemporary mass violence against women.
Every 2-3 years. 3 Credits

## PO-120 Global Politics

LASC Categories: GP, HBS, DAC, DIV
An introduction to Comparative Politics and International Relations. In this course, students will learn how different countries around the world govern themselves and how they interact with each other. Topics may include democratic and non-democratic regimes, theories of war and peace, global political cultures, and intergovernmental organizations such as the United Nations. [Applicable to the Global Studies Concentration.]
Fall and Spring and every year. 3 Credits

## PO-202 Globalization

LASC Categories: USW, GP, WAC
The promise and problems of globalization (spread of free market capitalism and political democracy). [Applicable to the Global Studies Concentration.] Every 2-3 years. 3 Credits

## PO-220 European Politics

LASC Categories: HBS, GP
This course provides a comparative study of European government and politics, with a focus on major countries such as Great Britain, France, Italy, Spain, Germany, and Russia. Special emphasis will be placed on learning about the structure of political power within the state and on important institutions that form the link between state and society, such as political parties and interest groups. Diverse nationalistic responses to the European Union will also be considered. [Applicable to the Global Studies Concentration.]
Every 2-3 years. 3 Credits

## PO-221 Asian Politics

LASC Categories: HBS, GP
This course provides students with an analysis of selected political systems of the countries of Asia. Students will have the opportunity to learn about major theories in comparative politics, which will be applied to the understanding of countries in the Asian region. Topics will include communist and post-communist transitions, democratization, social movements, and economic reform. [Applicable to the Global Studies Concentration.]
Every 2-3 years. 3 Credits

## PO-222 Latin American Politics <br> LASC Categories: GP, HBS

This course provides a comparative study of the government and politics of contemporary Latin America. It will explore the political systems of various countries, as well as how political dynamics, such as democratization, authoritarianism, and crisis situations, have affected political, economic, and social policies throughout the region. [Applicable to the Global Studies Concentration.]
Every 2-3 years. 3 Credits

## PO-322 Nationalism

Examines the theories fo nationalism, the development of the modern Nation-state, and its effect on global politics. [Cross-listed with HI-322. Applicable to the Global Studies Concentration.] Other or on demand. 3 Credits

## PO-323 Empire

Prerequisites: $\mathrm{HI}-103$ and $\mathrm{HI}-104$
Theories and models of colonization, the reaction of colonized peoples, and the way historians analyze imperialism from 1400 to 1920's. [Cross-listed with HI-323. Applicable to the Global Stuydies Concentration.]
Every 2-3 years. 3 Credits

## PS-365 Cultural Psychology

LASC Categories: TLC, HBS, WAC
Prerequisites: PS-101, EN-102, PS-210 with a C- or above.
This course addresses the role culture plays in human psychological processes and approaches to researching cultural aspects of human action. Other or on demand and every 2-3 years. 3 Credits

## SO-110 Cultural Anthropology

Cross-cultural analysis of the human capacity for adaptation and technological and ideological development. Significant field studies will be examined.
3 Credits

## SO-270 Social Theory I

LASC Categories: TLC, GP
Prerequisites: SO-100
Fundamental concepts and intellectual traditions, especially the contributions of Comte, Spencer, Marx, Toennes, Durkheim, and Simmel.
3 Credits

## SO-425 Global Capitalism <br> LASC Categories: HBS, GP, WAC <br> Prerequisites: EN-102

This class will look at the development of capitalism from an historical, sociological, and critical perspective and consider the ways capitalism has made and unmade the world. Themes may include: imperialism and the underdevelopment of the Global South, decolonization struggles, global urbanization, global financial institutions, global labor struggles, war and capitalism, global environmental crises and the struggle over resources, and market hegemony. Every year. 3 Credits

## SP-210 Intermediate Spanish I

LASC Categories: TLC, GP
This course is a review of language constructions and everyday vocabulary at a slighter faster pace than an elementary course. Grammar review starts with the most basic structures, such as present, preterite, and imperfect tenses, ser/estar, por/para, command forms, pronouns, and ends with present subjunctive. Vocabulary fields include feelings and emotions; urban living; family relationships; the media; and the environment. Readings, videos, and short films related to different Spanish speaking countries will add a cultural component to the course. This course is intended for students with 2 years of past Spanish instruction. Closed to students who have already taken a 300-level* Closed to Native/Heritage speakers. Native and/or Heritage speakers are encouraged to take SP390 instead. * Unless recommended to a specific student by the Department of World Languages, on a per-case basis. Fall and Spring and every year. 3 Credits
SP-211 Intermediate Spanish II
LASC Categories: TLC, GP
Prerequisites: SP-210 or appropriate placement score.
Continuation of SP210. [Formerly SP213.] Closed to students who have already taken a 300-level* Closed to Native/Heritage speakers. Native and/or Heritage speakers are encouraged to take SP390 instead. * Unless recommended to a specific student by the Department of World Languages, on a per-case basis. Fall and Spring and every year. 3 Credits

## SP-321 Advanced Spanish Composition I <br> LASC Categories: TLC, WAC

Prerequisites: SP-211 or appropriate placement score.
Facility in prose writing; study of style of selected authors; variety of expression through word discrimination, and advanced grammatical structures. [Prerequisites: Two SP 200 level courses.] Every year. 3 Credits
SP-322 Advanced Spanish Composition II LASC Categories: TLC, WAC
Prerequisites: SP-321
Continuation of SP321.
Spring only and every year. 3 Credits

## SP-323 Advanced Spanish Conversation Through

 FilmLASC Categories: TLC, USW
Prerequisites: Two 200-level or above Spanish courses.
The main objective of this course is to develop the student's oral proficiency and communication skills, while building on vocabulary, and learning about different aspects of the Hispanic cultural world with a special emphasis on immigration issues. Regarding the class format, it will be mainly based on group/pair discussions and debates, in which the students will ask questions, express their views, elaborate on their ideas, and defend them by providing supporting examples drawn from their own experiences, analysis, or comparisons.
Fall and Spring and every year. 3 Credits

## SP-326 Spanish for the Professions

LASC Categories: GP, TLC
Prerequisites: SP-321.
Intensive practice with language and documents used in private and public sectors including business, medicine, communication, education and social services.
Fall and Spring and every year. 3 Credits

## SP-327 Introduction to Translation

Prerequisites: SP-321.
SP-327 will prepare you for careers in translation and will satisfy professional and academic requirements. It seeks to introduce the student to the techniques required for translation in a competitive environment. Within the context of the development of greater cross-cultural awareness, it will develop the following language skills for business purposes: speaking, listening comprehension, reading, writing, and translation.
Spring only and every year. 3 Credits
SP-331 Spanish Civilization
LASC Categories: CA
Prerequisites: SP-321
An historical survey of Spanish social, cultural, and political life. Conducted in Spanish.
Spring only and every year. 3 Credits

## SP-332 Cultures of Latin America

LASC Categories: DAC, GP
Prerequisites: SP-321.
Introduction to the cultures and history of Latin America from pre-Columbian times to the present day. This course will introduce students to colonial, modern and contemporary cultural, historical and political issues that influenced the development of Latin American identities. The course is taught in Spanish.
Fall only and every year. 3 Credits
SP-333 Hispanic Presence in US
LASC Categories: GP, USW, DAC
Prerequisites: SP-321
Socio-cultural study of Hispanics in the United States, with a focus on major contemporary issues. Conducted un Spanish. [Prerequisites: Two SP 200 level courses.]
Fall only and every year. 3 Credits

UR-213 Human Identity and Urban Environment LASC Categories: DAC
Prerequisites: UR-101
This course addresses a number of learning outcomes, including: studying historical experiences, cultural patterns, and social advantages and disadvantages of different groups within society; exploring social problems such as racism, sexism, homophobia, and other forms of prejudice, discrimination, and exploitation as both mainstream and non-mainstream groups experience them; examining the diversity of different groups and their changing dynamics; helping students become knowledgeable about diversity issues and develop the ability to distinguish facts from interpretations and opinions; become familiar with materials written by and about diverse groups.
Spring only and every year. 3 Credits
UR-290 Gender and the City
LASC Categories: WAC, GP, HBS
Prerequisites: EN-102
Exploration of the ways in which gender, both male and female, structures responses of individuals to urban life and spaces.
Every 2-3 years. 3 Credits
UR-360 Environmental Systems and Public Policy Prerequisites: UR-101
Examination of urban ecosystems, focusing on land uses designed to effectively utilize water, open space, and other natural resources.
Other or on demand. 3 Credits
WL-210 Intermediate World Language I
Prerequisites: WL-102
Intermediate level I instruction in world languages that are not otherwise offered by the Department of Languages and Literature.
Other or on demand. 3 Credits

## WL-211 Intermediate World Language II

Prerequisites: WL-210
Intermediate level II instruction in world languages that are not otherwise offered by the Department of Languages and Literature.
Other or on demand. 3 Credits

# Human Rights and Social Justice Minor Human Rights Minor Requirements 

| Code | Title | Credits |
| :--- | :--- | ---: |
| HR-100 | Introduction to Human <br> Rights and Social | 3 |
| HR-400 | Internship in Human Rights <br> and Social Justice | $2-6$ |
| HR-450 | Senior Project on Human <br> Rights and Social Justice | 4 |
| 3 Human Rights and Social Justice electives at <br> any level | 9 |  |
| Total Credits |  | $\mathbf{1 8 - 2 2}$ |

## Interdisciplinary Studies

Interdisciplinary Studies is an expanding, exciting academic area in which students study, conduct research, and do creative work in subject areas that span multiple traditional academic disciplines. It has developed out of recognition that responses to complex problems and challenges require a combination of the intellectual tools available from a wide range of academic disciplines. Students with interdisciplinary studies backgrounds are wellprepared for the fluidly changing realities of the professional world as well as future study in an ever more interdisciplinary academic arena.

The Interdisciplinary Studies Department provides a number of major, minor, and concentration programs for students interested in subjects that span multiple traditional academic disciplines. The growing list includes

- the self-designed interdisciplinary major of Liberal Studies,
- minors (18 credits) in Asian Studies; Ethnic Studies; and Women's, Gender, and Sexuality Studies; and,
- concentrations ( 15 credits) in Environmental and Sustainability Studies; Ethnic Studies; Global Studies; and Women's, Gender, and Sexuality Studies.

Some courses in these areas are offered by the Interdisciplinary Studies Department, while many other courses are offered in other departments
across the university's curriculum. WSU's Student Planning platform allows students to search for all courses offered in a given semester in a specific program.

- African and African Diaspora Studies (p. 116)
- Asian Studies
- Environmental and Sustainability Studies
- Ethnic Studies
- Gerontology (p. 153)
- Global Studies
- Human Rights and Social Justice (p. 165)
- Liberal Studies
- Women's, Gender, and Sexuality Studies

Robert Brooks, Chair

- Ph.D., American University
- J.D., University of Detroit Law School
- M.A., Antioch University, Los Angeles
- B.M., Wayne State University

Rita Mookerjee

- Ph.D., Florida State University
- M.A., Temple University
- B.A., Temple University

Nafisa Tanjeem

- Ph.D., Rutgers - The State University of New Jersey
- M.A., University of Toronto
- B.S.S., University of Dhaka, Bangladesh


## Liberal Studies

The Liberal Studies major provides students a flexible, customized alternative to existing programs of study while fostering academic excellence in interdisciplinary learning. Liberal Studies majors may earn either the bachelor of arts or the bachelor of science degree.

As an individualized program, the Liberal Studies major prepares students for life after college through a broad-based liberal arts education and the fulfillment of these overarching learning outcomes:
interdisciplinary learning, career development, entrepreneurship and self-advocacy, and engaged citizenship.

The Liberal Studies major serves incoming first-year students who have a clear sense of their academic goals and want to craft their own major of study, transfer students who want to maximize the use of previously earned credits by designing their own major, students who have not selected a major of study or who decide not to complete their initial intended major, and adult students who may already be working in their desired field but seek a degree completion program.

## Admission Requirements

Students interested in the Liberal Studies major must meet the standard admissions criteria for Worcester State University. Once admitted, incoming first-year and transfer students must meet with an academic advisor in the Academic Success Center to discuss a program of study. These students will then take LS-190, during which they will submit a written plan of study to the Chair of the Interdisciplinary Studies Department with a rationale for the selection of the areas of study. Once approved, this plan of study is reflected in the student's Degree Audit.

Current Worcester State students who want to change from undeclared status or from other majors must also meet with an academic advisor in the Academic Success Center before changing majors. Those who want to pursue a Liberal Studies major will be required to enroll in LS-190. During this course, they will submit a written program of study to the director with a rationale for the selection of the areas of study.

This development of a program of study and review process allows for important conversations about a student's academic and professional goals, the best use of transfer credits, and the selection of the two primary areas of study.

## Standards for Minimum Academic Performance in the Liberal Studies major

Liberal Studies majors must meet the requirements for graduation as specified in the Undergraduate Catalog. These include the completion of a minimum
of 120 credits with a 2.0 cumulative grade point average and a minimum 2.0 grade point average in each of the two areas of study.

## Minors Available at Worcester State University

- Addictions Counseling Minor (p. 111)
- African and African Diaspora Studies Minor (p. 116)
- Art Minor (p. 313)
- Asian Studies Minor (p. 116)
- Astronomy Minor (p. 305)
- Business Administration Minor (p. 338)
- Cellular and Molecular Biology Minor (p. 188)
- Chemistry Minor (p. 210)
- Civic Engagement Minor (p. 430)
- Communication Minor (p. 349)
- Communication Education Minor (p. 344)
- Communication Sciences and Disorders Minor (p. 218)
- Composition and Music Technology Minor (p. 406)
- Computer Science Minor (p. 235)
- Criminal Justice Minor (p. 358)
- Data Science Minor (p. 236)
- Disabilities Studies Minor (p. 219)
- Economics Minor (p. 366)
- Education Studies Minor (p. 138)
- English Minor (p. 382)
- Environmental Science Minor (p. 242)
- Environmental and Sustainability Studies Minor (p. 147)
- Ethnic Studies Minor (p. 149)
- Financial Mathematics Minor
- Forensic Science Minor (p. 111)
- Geography Minor (p. 256)
- Geospatial Information Science Minor (p. 257)
- Global Studies Minor (p. 153)
- History Minor (p. 403)
- Human Development Minor (p. 440)
- Human Rights and Social Justice Minor (p. 165)
- Journalism Minor (p. 114)
- Latin American and Latinx Studies Minor (p. 505)
- Literature Minor (p. 383)
- Mathematics Minor (p. 282)
- Middle School Education Minor (p. 142)
- Middle School Mathematics Minor (p. 282)
- Music Minor (p. 405)
- Narrative Studies of Health and Body Minor (p. 384)
- Normal and Disordered Speech, Language and Hearing Minor (p. 220)
- Philosophy Minor (p. 421)
- Physics Minor (p. 305)
- Political Science Minor (p. 432)
- Pre-Law Minor (p. 432)
- Psychobiology Minor (p. 441)
- Psychology Minor (p. 446)
- Public Health Minor (p. 269)
- Public History Minor (p. 403)
- Secondary Education Minor (p. 144)
- Social Work and Social Policy Minor (p. 475)
- Sociology Minor (p. 453)
- Spanish Minor (p. 519)
- Spanish Minor for Health Professionals (p. 519)
- Theatre Minor (p. 454)
- Urban Studies Minor (p. 478)
- Women's, Gender, and Sexuality Studies Minor (p. 169)
- Writing Minor (p. 384)


## Requirements for the Liberal Studies major

In addition to meeting the 40-credit Liberal Arts and Sciences Curriculum (LASC) (p. 46) requirements for all undergraduates, Liberal Studies majors complete a minimum of 39 credits from two areas of study.

The first area (18-27 credits) must be completed in an established minor at Worcester State University.

The second area ( 15 or more credits) may be another of the University's established minors, a concentration, or a self-designed cluster of classes. A maximum of 18 credits may be transferred in to this second area of the major.

At least 9 credits in the Liberal Studies student's two areas must be at the 300 -level or above. The program of study plan must reflect that at least 51 percent of the major credits are taken at Worcester State University. To receive a baccalaureate degree from Worcester State University, a student must complete 30 of the last 40 credits at Worcester State University.

In addition, all Liberal Studies students must take:

| Code | Title | Credits |
| :--- | :--- | ---: |
| LS-190 | St: Introduction to Liberal | $3-4$ |
|  | Studies |  |
| LS-490 | Capstone/Senior Research in <br> Liberal Studies ${ }^{1}$ | 3 |
|  |  |  |

Two optional courses are designed to allow for flexibility in the major and to provide a deeper understanding of an interdisciplinary education:

| LS-290 | St: Intermediate Liberal <br> Studies | 3-4 |
| :--- | :--- | :---: |
| LS-390 | St: Advanced Liberal Studies | 3-4 |

${ }^{1}$ Students who have completed 30 credits between areas one and two of their program of study may enroll in the capstone.

Each Liberal Studies major is required to maintain an e-portfolio of work produced in the student's various courses, beginning in LS-190 and culminating inLS-490.

Evening students: Students wishing to declare a Liberal Studies major may, depending on the chosen areas of study, complete the required courses in the evening or during the summer.

Honors program: Liberal Studies majors with a 3.3 GPA or higher who wish to graduate with honors may add a 3-credit research project, creative work/ portfolio, or thesis to the individualized plan of study.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## LS-190 St: Introduction to Liberal Studies

A special topics course that introduces students to interdisciplinary scholarship and learning as well as student-initiated/directed learning.
Every year. 3-4 Credits

## LS-290 St: Intermediate Liberal Studies

This course focuses on a particular area of study that requires students to show mastery of the topic and a critical understanding of interdisciplinary learning and research methods.
3-4 Credits
LS-390 St: Advanced Liberal Studies
This course is organized around a particular subject area or research methodology problem. Students engage in joint or individual scholarship related to the course topic.
3-4 Credits

## LS-401 Liberal Studies Honors Thesis

The honors thesis represents an advanced research project culminating in a written liberal arts thesis that extends a student's Liberal Studies course of study. 3 Credits

## LS-402 Liberal Studies Honors Research

The honors scientific or social scientific research project includes a written paper reporting on the project's results and extends to an advanced level a student's Liberal Studies course of study.

## 3 Credits

## LS-403 Liberal Studies Creative Honors Project/ Portfolio

The honors creative work/portfolio extends to an advanced level a student's Liberal Studies course of study in the areas of the visual arts, theater, music, dance, literature, filmmaking, or another area of creative expression.
3 Credits

## LS-408 Directed Study: Liberal Studies

Fall and Spring. 1-3 Credits

## LS-480 Liberal Studies Intership

Prerequisites: LS-190 Student must be a declared Liberal Studies major.
This is an internship in Liberal Studies. It is appropriate for an internship experience that is part of a student's Liberal Studies course of study but that does not fit in an existing discipline with an internship course at WSU.
Other or on demand. 1-6 Credits
LS-490 Capstone/Senior Research in Liberal Studies LASC Categories: CAP, WAC
Prerequisites: LS-190 and at least 30 credits toward the Liberal Studies major.
This course provides an opportunity for students to compile evidence and reflect on the courses and independent work comprising their Liberal Studies major. Students will be expected to develop a cohesive narrative of their course of study. 3 Credits

## Women's, Gender, and Sexuality Studies Minor

Women's, Gender, and Sexuality Studies is an interdisciplinary, academic course of study that lies at the intersection of various traditional academic disciplines such as literature, history, and philosophy in the humanities; psychology and sociology in the social sciences; and biology and geography
in the natural sciences. Women's, Gender, and Sexuality Studies also has found a prominent place in areas such as education, communications, urban studies, and health sciences. Wherever issues of gender and sexuality are germane to a discipline, Women's, Gender, and Sexuality Studies can be found, bringing new models of understanding to all areas of study. The undergraduate minor in Women's, Gender, and Sexuality Studies brings together courses that provide a critical analysis of gender, sexuality, and the related categories of class, race, and other dimensions of social power. Gaining knowledge about women, men, and people of all genders helps students to move through a complex contemporary world.
Code Title Credits

Requirements for a Minor in Women's, Gender, (18 and Sexuality Studies

| WO-100 | Introduction to Women's, <br> Gender, and Sexuality <br> Studies |
| :--- | :--- | :--- |

A minimum of 15 additional credits.
At least one elective course must be at the 300 level or higher.
A maximum of two elective courses can come from the student's major. (If the WGSS minor is part of a Liberal Studies major, the maximum does not apply.)
A maximum of three elective courses can come from any single discipline.

Total Credits

The WGSS Minor provides recursive opportunities for students to encounter, develop, and master (a) the core knowledge of these interdisciplinary fields, (b) the practices needed to comprehend and communicate this knowledge to diverse audiences, and (c) the dispositions, habits of mind, and practices essential to advancing WGSS's liberatory values and aspirations. Students who minor in WGSS will

1. Compare, critique and challenge the formation of categories of gender, gender identity, and sexuality as they function in social, economic, cultural, and/or political contexts; and as they intersect with other categories of difference such as race, ethnicity, class, nationality, and ability.
2. Research, explain, and evaluate the historical development of feminist and queer theories, scholarship, and creative expression; engage in critical debates about those theories,
scholarship, and creative expression; and apply feminist and queer critical perspectives to analyze meaningful questions across disciplines.
3. Learn and practice how to use intersectional gender- and sexuality-based frames of analysis as tools for academic research, creative production, collaborative work, and social change. WGSS courses substantively address at least one of the above program goals.

As an interdisciplinary concentration, Women's, Gender, and Sexuality Studies draws its core faculty from multiple disciplines across campus. Each faculty member's information can be found at the respective department for each of the courses. The Program Coordinator for Women's, Gender, and Sexuality Studies can be contacted at wgss@worcester.edu for more information about the program.

## AR-225 Art Since Mid-20th Century

 LASC Categories: CA, GP, WAC, DACExplores how artists have challenged the traditional definitions of the art object and the expanded materials, media and concepts employed by artists since 1950 to the present era.
Fall only and every year. 3 Credits

## CM-213 Gender and the Media

LASC Categories: HBS, TLC, DAC, WAC, DIV
Prerequisites: CM-100 and EN-102
This course will explore how difference is socially constructed along gender lines and will explore the intersections of gender, identity, power and media representation.
Fall and Spring and every 2-3 years. 3 Credits

## CM-350 Intercultural Communication

Prerequisites: CM-100
Introductory communication theory and practice across cultural groups defined by race, ethnicity, gender, religion, age, nationality, politics and economics.
3 Credits

## ED-330 Elementary Social Studies and Mulriculturalism

Goals, curriculum, skills, issues, teaching strategies in educating diverse populations in a global context. 10 hours of fieldwork. Prerequiste: Admitted into Stage 2
Fall and Spring and every year. 3 Credits

## EN-132 World Literature

LASC Categories: GP, DAC, TLC, DIV
The course examines the major authors in world literature from ancient to modern times; however, in a given semester the course may focus on one particular time period. All areas of the world are covered, including such areas as Africa, Europe, the Americas. An emphasis will be put on cultural, sociological, historical, and philosophical influences on the literature. Such authors may be included as Chinua Achebe, Pablo Neruda, Bei Dao, Salman Rushdie, Nadine Gordimer, Edwidge Danticat, and Bessie Head.
Fall and Spring and every year. 3 Credits
EN-167 Literature and Human Rights
LASC Categories: GP, DAC, DIV
The course examines writing about human rights, including memoirs and novels, and examines issues of social justice. Violations of human rights that may be addressed include genocide, political repression, and torture; while social justice issues that may be examined include women's rights, justice and punishment, disability rights and methods of protesting for human rights. The course will examine definitions of human rights as well as reparations and living with the aftermath of human rights violations. Fall and Spring and every 2-3 years. 3 Credits
EN-172 Women and Literature
LASC Categories: WAC, TLC, GP
Explores basic issues and problems in literature by and about women.
Every year. 3 Credits
EN-174 Women Poets
LASC Categories: TLC, WAC, GP
Prerequisites: Fulfillment of Writing II
A close reading and analysis of poetry written by women from a historical as well as a contemporary feminist perspective.
Other or on demand. 3 Credits
EN-348 Postcolonial Women's Writing
LASC Categories: GP
Prerequisites: EN-102
Writing by women from colonized and formerly colonized countries on local and global issues shaping women's lives and creative expression. Every 2-3 years. 3 Credits

## HC-234 Multiculturalism and Health

Examination of diverse ethnic/racial and cultural beliefs beliefs and practices affecting health and illness
Spring only and every year. 3 Credits

## HE-210 Women's Health Issues

Overview of women's health issues: women in the health marketplace, a woman's right to control her body, media images and illness, eating disorders, therapy, alcohol, aging and the women's health movement.
Fall and Spring and every year. 3 Credits
HE-230 Human Sexuality and Sex Education Prerequisites: HE-100
Focus on the need for and understanding of sex education, along with the process of implementing sexuality education, with emphasis upon teacher preparation.
Every year. 3 Credits

## HI-216 Economic History of the United States

An introduction to United States economic development; particular attention will be paid to industrialization and the labor force. Counts for Europe/United States in the History major. Every 2-3 years. 3 Credits

## HI-217 US Social History

LASC Categories: TLC, USW, WAC, DIV, DAC
Considers topics and approaches in the field of social history in the United States. Counts for Europe/US in History major. [Applicable to Women's, Gender, and Sexuality Studies Minor.]
Every 2-3 years. 3 Credits

## $\mathrm{HI}-274$ The History of Gender and Sexuality in

 AmericaLASC Categories: TLC, USW, DIV, DAC
The history of sexuality and gender in America. Includes investigations of lesbian and gay histories; transgender histories; attempts to regulate and define sexuality; practices of birth control; the intersections of race, class, and gender; the social construction of gender; and the challenges of doing hidden histories. Counts for Europe/US in the History major. [Applicable to the Women's, Gender, and Sexuality Studies Minor.]
Every 2-3 years. 3 Credits

## HI-333 Women in Latin America

Prerequisites: $\mathrm{HI}-213 \mathrm{HI}-214 \mathrm{HI}-226$ or $\mathrm{HI}-247$
Examines the roles of women in diverse societies including Mexico, Brazil and Caribbean nations. Emphasis on the modern period. Counts for Africa/ Latin America in the History major. Every 2-3 years. 3 Credits

HI-353 The Age of Reform: US History, 1877-1920 Prerequisites: one History course.
An analysis of the transformation of America, including reform response to the Gilded Age's industrialization, urbanization and immigration patterns. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## MU-231 Women in Music

LASC Categories: CA, TLC
A survey of the role of women in music, particularly the great composers from Medieval to Contemporary times.
3 Credits
NU-340 Nursing Science Ii: Pediatrics (track I)
LASC Categories: NLL, DIV, DAC
Prerequisites: NU-210 NU-216 NU-309 NU-310
NU-430 Take EN-250 EN-202 or EN-102;
Prerequisites or Corequisite: NU-315
Concepts of wellness, disease, and health behavior are examined as the nursing process is operationalized in the care of acutely ill pediatric patients. Lecture and an off-site clinical experience are included in this course.
Spring only and every year. 4.5 Credits
PH-152 Philosophy of Love and Sex
LASC Categories: HBS, ICW, DAC
Investigates the concepts of love and sex and structural and discursive factors contributing to our daily experiences of these phenomena.
Every year. 3 Credits

## PH-178 Africana Philosophy

LASC Categories: TLC, USW, DAC
Explores the philosophy of the African diaspora in African, African American and Caribbean writings. The course addresses both historical and contemporary material across intersections of race, gender, and class using philosophy, history, and literature.
Every 2-3 years. 3 Credits

## PH-240 Political Theory

LASC Categories: USW, TLC, DIV
Investigates concepts including political power, equality, revolution, liberties, slavery, socialism and patriarchal power, race and gender.
Every year. 3 Credits

## PH-241 Genocide and Human Rights <br> LASC Categories: USW, GP, DIV

This course treats the ethical, political, and other dimensions of systematic mass violence through case studies and general theoretical analyses. Every 2-3 years. 3 Credits

## PH-250 Global Feminisms

LASC Categories: TLC, GP
Investigates the theoretical underpinnings of women's movements for equal rights around the globe.
Every 2-3 years. 3 Credits

## PH-254 Feminist Theory

LASC Categories: HBS, USW, DAC, DIV
Feminist Theory: Examines the development of feminist ideas and movements from the 18th century to the present, in the US and, particularly in recent decades, globally. A close analysis of Second Wave, Postmodern, and Black Feminist ideas are studied as a basis for writings and social action that attends to issues of race, class, gender, and sexuality, using intersectional methodologies and critiques to address issues of reproduction and health, labor and economic power, violence, and state power. Other or on demand and every year. 3 Credits

## PS-255 Psychological Foundations of Diversity

Prerequisites: PS-101 with a C- or above. Explores the gender, racial/ethnic, multiple-group membership, cultural, social class, religious, disability and sexual orientation facets of diversity. Other or on demand and every year. 3 Credits

## PS-260 Psychology of Human Sexuality

Prerequisites: PS-101 with a C- or above. Sexuality as a foundation of personality. The wide range of human sexuality is explored; sexual development, roles, attitudes and behaviors. Other or on demand and every 2-3 years. 3 Credits

## PS-263 Psychology of Women

Prerequisites: PS-101 with a C- or above.
Women's psychological development throughout the lifespan will be examined, including female development, achievement, stereotyping, stress, violence and psychological disorders.
Other or on demand and every 2-3 years. 3 Credits

## SO-285 Race, Class and Gender

LASC Categories: HBS, DAC
An introduction to dominant-minority group relations through the investigation of the patterns and dynamics of differentiation, inequality and discrimination.
3 Credits
SO-355 Gender and Sexuality
LASC Categories: HBS, ICW, DAC
This course introduces the sociologist study of gender and sexuality. This course examines how social institutions and cultural norms construct particular gender roles and sexual identities within society.
3 Credits

## SP-292 Spanish for Women's Health

LASC Categories: GP, ICW, DAC
Prerequisites: SP-211 or above, or 3 years of language instruction. In this course, students will develop communication skills in Spanish using information and vocabulary related to women's health. The content of this course focuses on language used in health professions as well as cultural situations. By familiarizing students with conversational Spanish and medical Spanish, this course will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between professionals and Spanish-speakers.
Finally, the course's focus on cultural competency interrogates intersections between women's health and topics including but not limited to politics, economics, gender, sexuality, race and age.
Spring only and every 2-3 years. 3 Credits

## SP-349 Spanish-American Literature

Prerequisites: SP-321
Representative works from South and Central American authors from the colonial period to the present.
Fall only and every 2-3 years. 3 Credits

## UR-103 Introduction to Women's Studies <br> LASC Categories: DAC, ICW, HBS

This course uses a variety of academic disciplines to study the situation of women around the world. Every year. 3 Credits

## UR-290 Gender and the City

LASC Categories: WAC, GP, HBS
Prerequisites: EN-102
Exploration of the ways in which gender, both male and female, structures responses of individuals to urban life and spaces.
Every 2-3 years. 3 Credits

## W0-100 Introduction to Women's, Gender, and Sexuality Studies

LASC Categories: ICW, DAC, DIV
How do the experiences of women reflect broader structures of power? What is gender? How does sexuality inform the construction of identity and relationships of power? How do gender, gender identity, and sexuality function in intersection with other categories of difference such as race, ethnicity, class, nationality, and ability? How have scholars, authors, and artists made sense of of these questions in their own work? In answering these questions, this course will introduce students to the interdisciplinary academic field of Women's, Gender, and Sexuality Studies.
Fall and Spring and every year. 3 Credits

## WO-191 Special Topics in Women's, Gender, and Sexuality Studies

This course provides students an introduction to the field of WGSS through a frame that would not otherwise be offered in WO-100: Introduction to WGSS or PH-152: The Philosophy of Love and Sex. The specific focus of this course will be determined by the instructor, as per their area of expertise. Other or on demand and other or on demand. 3 Credits

W0-201 Special Topics in Women's, Gender , and Studies
This course provides students an opportunity for intermediate study in a more specialized area of WGSS. The specific focus of this course will be determined by the instructor, as per their area of expertise.
Other or on demand and other or on demand. 3 Credits

## W0-301 Special Topics in Women's, Gender, and Sexuality Studies

Prerequisites: EN-102. Must have completed a minimum of 12 credits, must have taken at least 1 WGSS course or permission of instructor This course provides students an opportunity for advanced study in a specialized area of WGSS. The specific focus of this course will be determined by the instructor, as per their area of expertise.
Other or on demand and other or on demand. 3 Credits

WO-401 Special Topics in Women's, Gender, and
Sexuality Studies
Prerequisites: EN-102. Must have taken 39 credits and either WO-100, PH-152, or equivalent course, or permission of instructor.
This course provides students an opportunity for highly advanced study in a specialized area of WGSS.
The specific focus of this course will be determined by the instructor, as per their area of expertise.
Other or on demand and other or on demand. 3
Credits
WO-408 Directed Study in Women's, Gender, and Sexuality Studies
Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Other or on demand and other or on demand. 3 Credits

WO-430 Fieldwork in Women's, Gender, and Sexuality Studies
Prerequisites: EN-102.
Lab and/or field based research on a specific topic under the supervision of a faculty member. May include assisting faculty with ongoing research. Other or on demand and other or on demand. 1-3 Credits
wo-481 Independent Study in Women's, Gender, And Sexuality Studies
Prerequisites: EN-102.
An opportunity for further study in a special area of interest under faculty supervision. Topic to be approved by an independent study advisor.
Other or on demand and other or on demand. 1-3 Credits

W0-486 Internship in Women's, Gender, and Sexuality Studies
Prerequisites: EN-102.
Provides opportunity to students to increase experience through internship with sponsoring community organization, institution, or business under appropriate supervision.
Other or on demand and other or on demand. 1-3 Credits

# School of Science, Technology and Health 

## Dean

Dr. Linda S. Larrivee
Mission Statement
Worcester State University's School of Science, Technology, and Health is dedicated to engaging students in learning so that they may become successful and conscientious citizens of the world. Through teaching, scholarship, and research both on and off campus, students learn theoretical and practical knowledge that enable critical analysis in their areas of study and promote a passion for lifelong learning. Through practicum, internship, fieldwork, and other experiences, students develop leadership skills and find their path forward to careers and/or post graduate education.

## Location

Kalyan K. Ghosh Science and Technology Building First Floor, Room ST-101

## Departments

- Biology (p. 176)
- Chemistry (p. 202)
- Communication Sciences and Disorders
(p. 213)
- Computer Science (p. 226)
- Earth, Environment, and Physics (p. 303)
- Health Sciences (p. 258)
- Mathematics (p. 270)
- Nursing (p. 284)
- Occupational Therapy (p. 298)


## Centers

- Aisiku STEM Center
- Center for Interdisciplinary Health Studies and Practice
- Math Center
- Speech-Language-Hearing Center


## Biology

## Department of Biology

The Biology Department houses both the Biology Major and the Biotechnology Major (p. 194), which is an interdisciplinary major sponsored by the Biology Department and Chemistry Department (p. 202). Within the Biology Department, students may also pursue minors in Ecology or Cellular \& Molecular Biology. In addition, the Biology Department cosponsors interdisciplinary minors in Psychobiology (together with the Psychology Department (p. 434)) and Bioinformatics (with the Computer Science Department (p. 226)).

The Biology major program provides students with a broad knowledge in the biological sciences through a core curriculum and upper-level courses in specialized areas of study. A hands-on approach for teaching laboratory techniques and field work is emphasized. Throughout the program, students are encouraged to develop effective communication skills and an awareness of the societal and global implications of biology. Students interested in medical, dental, veterinary, or physician assistant school may complete a Biology major with a PreMedicine Concentration. The Biology Major also provides a path to meet most of the prerequisites necessary for other programs in the health professions, such as optometry, physical therapy, and pharmacy, and the Accelerated Pharmacy Program with MCPHS can be completed through the Biology major.

Undergraduate biology majors who have demonstrated academic excellence and an interest in biological research may participate in the Honors in Biology program. The Chi lota Chapter of the national biological honor society, Beta Beta Beta, provides recognition to outstanding students majoring in Biology and Biotechnology.

- Bioinformatics Minor for Biology/Biotechnology Majors (p. 183)
- Bioinformatics Minor for Chemistry Majors (p. 184)
- Bioinformatics Minor for Computer Science Majors (p. 185)
- Bioinformatics Minor for non-Biology, Biotechnology, Chemistry, or Computer Science Majors (p. 186)
- Biology Major (p. 186)
- Biology Major and Prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Sciences (p. 190)
- Cellular \& Molecular Biology Minor (p. 188)
- Ecology Minor (p. 189)
- Honors Program in Biology (p. 190)
- Major in Biology, Concentration in Pre-Medicine (p. 306)
- Psychobiology Minor (p. 192)


## Faculty

Latifeh Amini-Kormi, Professor (1994), B.S., Tehran
University; Ph.D., University of Pennsylvania
Daron C. Barnard, Professor (2006), B.A., Middlebury College; Ph.D., Vanderbilt University

Stephen Gee, Visiting Assistant Professor (2022), B.S., University of South Carolina; M.S., Medical University of South Carolina; Ph.D., University of North Carolina at Chapel Hill

Roger S. Greenwell, Co-Coordinator of the Biotechnology Program, Associate Professor (2014), B.S., Western Kentucky University; Ph.D., University of Wisconsin-Madison

Aleel K. Grennan, Associate Professor (2017), B.S., University of Massachusetts; M.S., Ph.D., University of Illinois

Jennifer Hood-DeGrenier, Department Chair, Professor (2012), B.A., Williams College; Ph.D., Harvard University

Yan Hu, Assistant Professor (2018), B.S., Qufu Normal University ; Ph.D., Wuhan University

Jaime G. Mancilla, Assistant Professor (2023), B.S., University of Maryland; Ph.D., University of Chicago

Steven J. Oliver, Professor (2003), B.A., University of Montana; Ph.D., Boston University

Maura Pavao, Professor (2001), B.S., Worcester Polytechnic Institute; M.S., Ph.D. Rutgers University

Luis Rosado, Assistant Professor (2020), B.S., Boise State University; M.S., Ph.D., University of Massachusetts Amherst

Randall Tracy, Professor (2003), B.S., M.S., University of Connecticut; Ph.D., Arizona State University

Sebastian Velez, Professor (2012), B.S., University of Puerto Rico; M.S., University of Notre Dame; Ph.D., Harvard University

## Courses

## PB-200 Introduction to Psychobiology

LASC Categories: HBS, NSP, LAB
Prerequisites: PS-101 and BI-116 or BI-140.
Introductory course in Psychobiology that covers
topics including neurobiology, evolution, sensory/ motor systems, learning and memory, and social behavior.
Fall only and every year. 4 Credits

## PB-400 Capstone in Psychobiology

LASC Categories: CAP
Seminar covering selected topics in Psychobiology including primary source material readings, laboratory activities, discussion, oral presentation and written papers.
Spring only and every year. 2 Credits

## Biology Courses (Undergraduate)

See LASC section for information on the Liberal Arts and Sciences Curriculum (LASC).

## BI-101 Concepts of Biology

LASC Categories: LAB, NSP
Unifying principles in biology; diversity and evolution of plant and animal life at cellular and organismic levels. Three lecture hours and a two-hour laboratory per week. Not open to Biology Majors.
Fall and Spring and every year. 4 Credits

## BI-103 The Human Animal

LASC Categories: NSP
A general survey of the structure and function of human body systems from the biochemical and cellular basis of life to evolution of the human body and the organization of organs and organ systems, including the biological basis of selected disease states. Not open to Biology Majors.
Every year. 3 Credits

BI-104 The Human Animal Laboratory
LASC Categories: NSP, LAB
Prerequisites or Corequisite: $\mathrm{BI}-103$
This course is the lab to accompany The Human Animal, a general survey of the structure and function of human body systems from the biochemical and cellular basis of life to evolution of the human body and the organization of organs and organ systems, including the biological basis of selected disease states.
Every year. 1 Credit
BI-109 Writing in the Natural Sciences
LASC Categories: WR2, NSP
Prerequisites: EN-101.
Builds upon the writing skills gained in EN-101 to introduce students to the various genres of writing in the natural sciences. Students will develop literature research skills, learn how to craft and explain an experimental proposal, and practice written, graphical, and oral presentation of data and scientific concepts to academic and lay audiences.
Spring only and every year. 3 Credits

## BI-111 Social Biology

LASC Categories: HBS, NSP
This course considers the interface between current biological technologies and the social, cultural, legal, and moral postures of modern man.
Every 2-3 years. 3 Credits

## BI-112 Diseases and Mankind

LASC Categories: GP, NSP
Diseases of ancient and modern man; the impact on history, religion, science, art and philosophy.
Every 2-3 years. 3 Credits

## BI-114 Plants and Human Affairs <br> LASC Categories: GP, NSP

Man's dependence upon plants and their influence on civilization and its art, religions, literature, folklore, medicine, and human behavior.
Every 2-3 years. 3 Credits

## BI-116 Animal Biology

LASC Categories: LAB, NSP
Survey of animal kingdom with emphasis on animal diversity, morphology, life histories, ecological evolutionary relation- ships. No credit for Biology major. Three lecture hours and two laboratory hours per week. Not open to Biology majors.
Every year. 4 Credits

## BI-117 Humans and the Environment LASC Categories: LAB, NSP

A survey of Anthropologic environmental impacts and the underlying mechanisms involved. Three lecture hours and three laboratory hours per week. Not open to Biology or Environmental Science majors.
Every 2-3 years. 4 Credits

## BI-118 Dinosaurs

LASC Categories: NSP, LAB
A survey of dinosaurs; their evolution, anatomy, diversity and impact on evolutionary biology. discussions of the changing views of dinosaurs in the media and public consciousness. Three hours lecture and two hors lab.
Every 2-3 years. 4 Credits

## BI-1 19 Biology of Sex

LASC Categories: NSP, TLC, WAC
Prerequisites: Writing II
A introduction to the natural history of sex, to answer the question of why does sex exist, and discuss topics of variation, sexual dimorphism, sexual selection, inter- and intra-sexual conflict, mating systems in plants and invertebrate animals. Will also focus on mating systems among vertebrate animals: monogamy, polygamy (including polygyny, polyandry, and polygynandry), sexual reproduction in mammals, and among primates. Will cover courtship behavior in sexual animals with emphasis in marine invertebrates, arthropods, and primates (including humans). Course will conclude with a discussion of the genetics of parent-offspring conflict in placental mammals.
Every 2-3 years. 3 Credits

## BI-120 Darwinian Revolution

LASC Categories: TLC, NSP
An interdisciplinary perspective on the philosophical, religious, and social impacts of Darwin's theory of evolution by the process of natural selection.
[Formerly BI370.]
Every 2-3 years. 3 Credits
BI-125 Women in Science
LASC Categories: HBS, NSP, DAC
Examines issues related to gender in science and technology. Includes historical and recent contributions to science made by women.
Every 2-3 years. 3 Credits

## BI-130 Field Biology

LASC Categories: GP, NSP, LAB
Study-Abroad Field Biology course for non-Biology majors. Course explores the intersection of human activities and environmental preservation, with a basic introduction to topics in organismal biology, biodiversity and biogeography.
Spring only and every year. 4 Credits

## BI-140 Introduction to Organismal Biology

LASC Categories: LAB, NSP
Evolution, ecology, anatomy, physiology and diversity of organisms. Three hours lecture and three hours lab each week. Intended for STEM Majors.
Fall and Spring and every year. 4 Credits

## BI-141 Intro to Cellular and Molecular Biology <br> LASC Categories: NSP, LAB

Prerequisites: $\mathrm{CH}-120$ with a C - or above. $\mathrm{CH}-121$ is a recommended course that can be completed concurrently or previously. Cellular and molecular concepts in biology. Emphasis on the structures and functions of macromolecules and organelles. Introduction to cellular transport, signaling, metabolism, cell division, and gene expression. Three lecture hours and three laboratory hours per week. Intended for STEM Majors/Minors. Fall and Spring and every year. 4 Credits

## BI-161 Human Anatomy and Physiology I

LASC Categories: NLL
Considers human cellular biology, tissues, integumentary, nervous, endocrine, skeletal, muscular systems. Three hours of lecture and a three-hour laboratory per week.
Fall and Spring and every year. 4 Credits
BI-162 Human Anatomy and Physiology II
LASC Categories: LAB, NSP
Prerequisites: BI-161.
Considers digestive, respiratory, cardiovascular, urinary, immune and lymphatic systems; water and electrolyte balance, reproduction and embryology.
Three lecture hours and three laboratory hours per week.
Fall and Spring and every year. 4 Credits

## BI-193 First Year Seminar Biology <br> LASC Categories: FYS

Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Every year. 3 Credits

BI-199 Selected Topics: Biological Sciences
Each topic is a lecture and/or a laborotory course in a selected area of the biological sciences presented by a departmental instructor, Topics will be announced in advance.
Every 2-3 years. 1-4 Credits

## BI-200 Human Biology <br> LASC Categories: NLL

Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-141$ or PB-200 with a grade of C- or above
A systemic approach to the study of human biology. The course will emphasize structure/function relationships and homestatic mechanisms. Three hour lecture and three hour lab.
Fall and Spring and every year. 4 Credits

## BI-202 Principles of Ecology <br> LASC Categories: NLL, WAC

Prerequisites: BI-140, EN-102, MA-150 or MA-180, or MA-190, or MA-200 with a grade of C- or above. Basic ecological theory relating to organismenvironment interactions; population dynamics, and ecosystems. Three hours of lecture and a three-hour laboratory per week.
Fall and Spring and every year. 4 Credits

## BI-203 Genetics

LASC Categories: NLL, QAC
Prerequisites: $\mathrm{BI}-141$ with a grade of C - or above.
Must have a minimum math placement exam score of 3 .
Introductory genetics with examples of human inheritance and recent developments in genetic engineering. Three hours of lecture and a three-hour laboratory per week.
Fall and Spring and every year. 4 Credits

## BI-204 Microbiology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-141$ and $\mathrm{CH}-121$ with a grade of C or above.
The cytology, metabolism, and genetics of bacteria. Immune responses and control of microorganisms are stressed. Three lectures and a three-hour laboratory per week. (Prerequisites: Introductory chemistry and biology courses)
Fall and Spring and every year. 4 Credits

BI-205 Research Techniques and Experimental Design
Prerequisites: BI-141, and MA-150.
Investigations in experimental design and research methodologies required for the Honors program in Biology (or Biotechnology).
Spring only and every year. 2 Credits

## BI-206 Medical Microbiology

LASC Categories: NSP, LAB
Prerequisites: $\mathrm{BI}-161$ and either $\mathrm{CH}-112$ or $\mathrm{CH}-120$ and CH-121.
A study of growth and control of pathogenic microorganisms with emphasis on infectious disease transmission, immune responses, prevention and treatment. Three lecture and three laboratory hours per week.
Fall and Spring and every year. 4 Credits
BI-207 Public Health Microbiology
Prerequisites: BI-161 and CH-112.
Growth and control of pathogenic microorganisms with emphasis on infectious disease transmission, immune responses, prevention and treatment for Public Health Majors.
Every year. 3 Credits

## BI-211 Pre-Medical Seminar. Preparing for a Career in Medicine

A seminar that will introduce pre-medical, pre-dental, and pre-veterinary students to the the requirements for admission to graduate programs in these areas. Students will develop personal plans for working toward these requirements, will interact with a variety of healthcare professionals to gain knowledge about different careers and determine which is the best fit for them, and will discuss current ethical and policy issues related to healthcare. Open only to Biology, Biotechnology, and Chemistry students with a declared Pre-Medical Concentration who have an overall GPA of at least 3.2 and a Biology/Chemistry/ Math/Physics GPA of at least 3.2.
Fall only and every year. 1 Credit

## BI-212 Concepts of Microbiology

Prerequisites: BI-206: Medical Microbiology (with a B- or higher) $\mathrm{CH}-121$ : General Chemistry II Only for students who transfer into the Biology or Biotechnology major and have taken BI-206: Medical Microbiology prior to switching their major. This course introduces students to fundamental concepts in microbiology that are not emphasized in a medically-focused microbiology course, including the myriad positive and negative ways that microorganisms affect our lives and impact the world around us, microbial physiology and genetics, microbial contributions to biotechnology, microbial diversity, and evolutionary relationships and genetic exchange between microbes.
Other or on demand and other or on demand. 2 Credits

## BI-215 Neuroscience

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-161$ and $\mathrm{BI}-162$
Structural and functional organization of the human nervous system with a focus on clinical applications. Three lecture hours and three laboratory hours per week.
Fall only and every year. 4 Credits

## BI-240 Research Experience

Lab and/or field based research on a specific research topic under the supervision of a faculty member. Permisson of instructor required. Fall and Spring. 1-6 Credits

## BI-266 Biology of Aging

Considers characteristics of the aging process utilizing the newest theories based upon dynamics, function and metabolic regulations, disease and the acceleration of the aging process. [Formerly BI351.] Every 2-3 years. 3 Credits

## BI-271 Basic Kinesiology

LASC Categories: NSP
Prerequisites: BI-161.
Structure and function of human skeletal muscles in relation to motion and general body mechanics under normal and stress conditions. Spring only and every year. 3 Credits

BI-301 Topics in Invertebrate Zoology
LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-202$ with a grade of C - or above.
Considers anatomy, taxonomy (including selected articles of the international code of zoological nomenclature), natural history, and evolutionary relationships of selected invertebrate phyla. Three hours of lecture and a three-hour laboratory per week.
Every 2-3 years. 4 Credits

## BI-303 Parasitology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140$ and either $\mathrm{BI}-200$ or $\mathrm{BI}-161$ and BI-162 with a grade of C- or above.
Basic concepts in symbiology, life cycles, epidemiology, disease development, control and prevention of selected human parasites. Three hours of lecture and a three-hour laboratory per week.
Every 2-3 years. 4 Credits

## BI-304 Comparative Vertebrate Anatomy

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140$ and either $\mathrm{BI}-200$ or $\mathrm{BI}-161$ and $\mathrm{BI}-162$ with a grade of C - or above.
Considers prochordate and chordate taxonomy and phylogeny; systematic morphological comparison of representative chordates to establish homology, analogy, and evolution. Three lecture hours and a three-hour laboratory per week.
Every 2-3 years. 4 Credits

## BI-306 Developmental Biology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-141$ and $\mathrm{BI}-203$ with a grade of C - or above.
Study of developmental patterns, cullular differentiation and cell interactions resulting in cellular diversity, organization, and perpetuation of the germ line. Three lecture hours and three laboratory hours per week.
Every 2-3 years. 4 Credits
BI-307 Human Movement and Perception
Prerequisites: $\mathrm{BI}-200$ or $\mathrm{BI}-271$.
This course is an introduction to the ecological perspective of human movement (action) and perception in which we will explore the philosophical roots for our contemporary views of human perception, the evolution/development of our sensory/perceptive mechanisms and comparecontrast humans with other perceptive organisms in the Animal Kingdom.
Every 2-3 years. 4 Credits

## BI-315 Comparative Neurobiology <br> LASC Categories: NLL

Prerequisites: $\mathrm{BI}-161$ and $\mathrm{BI}-162$ or $\mathrm{BI}-200$ or $\mathrm{PB}-200$ with a grade of C - or above.
Structural and functional organization of the central and peripheral nervous system. Principles of normal and abnormal transmission, integration, and storage of information in neuronal pathways. Three hours of lecture and a three-hour laboratory per week. Every 2-3 years. 4 Credits

## BI-321 Comparative Physiology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140, \mathrm{BI}-141$, and either $\mathrm{BI}-200$ or $\mathrm{BI}-161$ and $\mathrm{BI}-162$ with a grade of C - or above. A comparison of select physiological functions of different animal taxa with mammals used as a reference. Three lecture hours and a three-hour laboratory per week.
Every 2-3 years. 4 Credits

## BI-324 Endocrinology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140, \mathrm{BI}-141$, and $\mathrm{BI}-200$ or BI-161/162 with a grade of C - or above.
The role of endocrine glands in the normal integration of animals; mechanisms of hormone action, function, and interrelationships. Three hours of lecture and a three-hour laboratory per week.
Every 2-3 years. 4 Credits

## BI-331 Marine Biology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-202$ with a grade of C - or above.
Considers the marine environment, its flora and fauna, distribution and production of plankton-nekton-benthos, zoogeography, bioeconomic factors and potential. Three lecture hours and a three-hour laboratory per week.
Every 2-3 years. 4 Credits

## BI-333 Topics in Vertebrate Zoology <br> LASC Categories: NLL

Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-202$ with a grade of C - or above.
Life histories, adaptations, distribution, systematics, and economic importance of selected vertebrates taxa. Each semester will focus on a particular taxon. Three hours of lecture and a three-hour laboratory per week.
Every 2-3 years. 4 Credits

## BI-334 Wildlife Biology

Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-202$ with a grade of C - or above.
Theory and Practice of wildlife management. Considers procedures for collection and analysis of field and laboratory data on vertebrate game populations useful to wildlife biologists. Three hours of lecture and a three-hour laboratory per week.
Every 2-3 years. 4 Credits

## BI-340 Plant Sciences

LASC Categories: NLL
Prerequisites: BI-140 and BI-202 with a grade of C- or above.
Morphology, anatomy, physiology of flowering plants with studies on life cycles, ecological relationships, biochemical processes and evolution of plant diversity. Three lecture hours and three laboratory hours per week.
Every 2-3 years. 4 Credits

## BI-341 Mycology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-141$ and $\mathrm{BI}-204$ with a grade of C - or above.
The morphology, cytology, and evolution and classification of the fungi. Three hours of lecture and a three-hour laboratory per week.
Every 2-3 years. 4 Credits

## BI-342 Plant Physiology

Prerequisites: $\mathrm{BI}-141$ and $\mathrm{BI}-204$ with a grade of C - or above.
Fundamentals of plant processes: nutrition, metabolism, growth, development and responses.
Three hours of lecture and a three-hour laboratory per week.
Every 2-3 years. 4 Credits

## BI-344 Soil Biology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140, \mathrm{BI}-141, \mathrm{BI}-204, \mathrm{CH}-120$, and
$\mathrm{CH}-121$ with a grade of C - or above.
Includes study of nutrient cycling, relations between plants, animals, and microbes, ecology of polluted soils and soil biotechnology. Three lecture hours and three laboratory hours per week.
Every 2-3 years. 4 Credits

## BI-354 Systematics and Evolution LASC Categories: LAB

Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-203$. Introduction to the use of morphological and molecular data to trace the evolutionary history of living things. Historical overview of the fields of taxonomy and systematics. Evolution of genes and genomes. Algorithmic and criteria-based methods for the development of phylogenetic hypotheses. Course includes lectures and projects based on computer applications. Lecture and computer laboratory. Every 2-3 years. 4 Credits

## BI-360 Animal Behavior

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-202$ or PB-200 with a grade of C- or above.
Survey of ethology and behavioral ecology from an historical and evolutionary perspective. Laboratory involves observation, recording and analysis of animal behavior. Three lecture hours and three laboratory hours per week.
Every 2-3 years. 4 Credits

## BI-370 Darwinian Revolution

Philosophical, religious, and social impacts of Darwin's theory of evolution by the process of natural selection. An interdisciplinary perspective. [Superseded by BI120.]
Other or on demand. 3 Credits

## BI-371 Advanced Topics in Cell and Molecular Biology <br> LASC Categories: NLL

Prerequisites: $\mathrm{BI}-141$ and $\mathrm{BI}-203$ or $\mathrm{BI} / \mathrm{CH}-410$ with a grade of C - or above.
Examination of current topics in cell and molecular biology, including mechanisms that regulate gene expression and protein function, organization of cellular components into functional pathways, and modern experimental techniques.
Every 2-3 years. 4 Credits

## BI-372 Immunology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-141$ and $\mathrm{BI}-204$ with a grade of C - or above.
Introduction to cellular defense mechanisms in health and disease; antigen-antibody reactions, human immune responses. Three lecture hours and three laboratory hours per week.
Every 2-3 years. 4 Credits

## BI-375 Virology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-141$, and $\mathrm{BI}-204$ with a grade of C - or above.
Physical structure and replication schemes of viruses; role of viruses in human disease, research and commercial applications. Three lecture hours and three laboratory hours per week.
Every 2-3 years. 4 Credits

## BI-380 Biodiversity and Conservation Biology LASC Categories: LAB

Prerequisites: $\mathrm{BI}-140, \mathrm{BI}-141, \mathrm{BI}-202$, and $\mathrm{BI}-203$ with a grade of C - or above.
A theoretical and quantitative approach to species, genetic, ecosystem and community diversity in the context of modern conservation biology principles. Three lecture hours and three laboratory hours per week.
Every 2-3 years. 4 Credits

## BI-398 Cancer Biology

Prerequisites: $\mathrm{BI}-141$ and $\mathrm{BI}-203$ with a grade of C - or above.
Cellular and molecular basis of cancer, including cancer genetics, biochemical pathways related to cancer, and modern traetment approaches.
Every 2-3 years. 4 Credits
BI-401 Selected Topics: Biological Sciences
Each topic is a lecture and/or laboratory course in a selected area of the biological sciences presented by a departmental instructor and/or guest lecturers when appropriate. Topic to be announced in advance. Every 2-3 years. 1-4 Credits

## BI-402 Independent Study: Biology

Advanced semi-independent study (by qualified upper-level biology majors) of an approved biological problem. Faculty supervision required. (May not be used for major requirements.) Consent of department and instructor. Junior/Senior standing required.
Fall and Spring. 1-6 Credits

## BI-403 Internship: Biology

Intended for qualified, upper-level biology majors. Faculty advisor required. (May not be used for major requirements.) Consent of department. Junior/Senior standing required.
Fall and Spring. 1-6 Credits

## BI-404 Biology Seminar

LASC Categories: CAP
Prerequisites: $\mathrm{BI}-202, \mathrm{BI}-203, \mathrm{BI}-204, \mathrm{BI}-200$ or $\mathrm{BI}-161$
$\mathrm{BI}-162$ with a grade of C - or above. Senior Standing also required
Preparation and presentation of biological topics, chosen with the advice and consent of a faculty advisor.
Fall and Spring and every year. 2 Credits

## BI-408 Directed Study: Biology

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Other or on demand. 1-3 Credits

## BI-410 Biochemistry I

## LASC Categories: NLL

Prerequisites: CH 201 with a grade of C - or above. The chemistry of proteins, nucleic acids, carbohydrates, and lipids; enzymes, biological oxidations; and correlations in intermediary metabolism. Three hours of lecture and a three-hour laboratory per week. [Cross listed as CH 410 .] Fall and Spring and every year. 4 Credits

## BI-430 Field Biology

Study-Abroad Field Biology course for Biology majors. Course explores the intersection of human activities and environmental preservation, with an in-depth discussion of topics in organismal biology, ecology, biodiversity and biogeography. Spring only and every year. 4 Credits

## BI-440 Advanced Research Experience for Undergraduates

Prerequisites: BI-205 along with 3 Biology courses at WSU. Consent of instructor required. Junior/Senior standing required.
Advanced lab and/or field based research on a specific research topic under the supervision of a faculty member.
Fall and Spring. 1-6 Credits

## Program Learning Outcomes

- Demonstrate a working knowledge of the following core content areas:
- Cell and molecular biology;
- Characteristics of organisms, including human biology;
- Principles of heredity and the evolution of life;
- Interactions among species within ecosystems.
- Demonstrate competence in processes and practices used by professionals in the field of biology, including:
- Proper use of tools, equipment, materials, and safety procedures to execute laboratory and other experimental techniques;
- Application of analytical skills to gather, organize, interpret and evaluate scientific data;
- Application of critical thinking skills to design appropriate experiments to answer scientific questions and solve problems.
- Be able to effectively communicate biological observations and concepts to both lay and scientific audiences through written scientific genres (e.g. lab report/research report, literature review, poster presentation) and oral presentations.
- Be able to discuss the historical and contemporary social implications of biology, including:
- The effects of human activities on the environment;
- Ethical issues that influence decisions related to biology.


## Bioinformatics Minor for Biology/Biotechnology Majors

The purpose of this interdisciplinary minor is to prepare students to enter the computer-intensive fields of bioinformatics, computational biology, computational chemistry, and molecular modeling, including genomics and proteomics. With the everincreasing number of fully sequenced genomes, including the human genome, biological databases have grown at such a rate that storing, organizing, indexing, and ultimately mining the data have become key to answering biological questions. The methodologies of genomics, transcriptomics, and proteomics analyze genome structures, patterns of gene expression, and protein structure and function, respectively. Information obtained by computational biology and computational chemistry is used in the design of new drugs to treat a variety of diseases.

Major drug and biotechnology companies are eager to hire people trained in the combination of biology and computer science skills that this minor provides.

Bioinformatics Minor for Biology/ Biotechnology Majors Program Requirements

| Code | Title | Credits |
| :---: | :---: | :---: |
| CS-135 | Programming for Non-CS Majors | 3 |
| BT-378 | Bioinformatics ((can double count as an upper-level elective or the major.)) | 4 |
| Research/Internship in Bioinformatics |  | 2-3 |
| BI-240 | Research Experience |  |
| BI-403 | Internship: Biology |  |
| BI-440 | Advanced Research <br> Experience for <br> Undergraduates |  |
| CS-498 | Internship: Computer Science |  |
| CS-499 | Independent Study: Computer Science |  |
| CH-480 | Internship: Chemistry |  |

Electives - take 3 courses (only one BI/BT course 9-10
which will not double count in the major)

| CS-131 | Data Visualization and <br> Statistical Analysis |
| :--- | :--- |
| CS-234 | Data Mining for Non-Cs <br> Majors |
| BT-350 | Genomics |
| BI-354 | Systematics and Evolution |
| BI-401 | Selected Topics: Biological <br> Sciences ((as approved by <br> the Bioinformatics advisory <br> board)) |
| MA-260 | Linear Algebra |
| MA-302 | Probability and Statistics <br> ((can substitute for MA-150 <br> as ancillary requirement for <br> the major)) |
| MA-303 | Mathematical Modeling |
| PH-134 | Computing Ethics |

Total Credits
18-20

- Understand the intersectionality of biology, computer science, and mathematics in the context of the field
- Utilize existing tools to evaluate bioinformatics data, discover patterns, and draw conclusions
- Communicate bioinformatics information in both written and oral forms
- Develop laboratory skills that are used in the bioinformatics field


## Bioinformatics Minor for Chemistry Majors

The purpose of this interdisciplinary minor is to prepare students to enter the computer-intensive fields of bioinformatics, computational biology, computational chemistry, and molecular modeling, including genomics and proteomics. With the everincreasing number of fully sequenced genomes, including the human genome, biological databases have grown at such a rate that storing, organizing, indexing, and ultimately mining the data have become key to answering biological questions. The methodologies of genomics, transcriptomics, and proteomics analyze genome structures, patterns of gene expression, and protein structure and function, respectively. Information obtained by computational biology and computational chemistry is used in the design of new drugs to treat a variety of diseases. Major drug and biotechnology companies are eager to hire people trained in the combination of biology and computer science skills that this minor provides.

## Bioinformatics Minor for Chemistry Majors Program Requirements

| Code | Title | Credits |
| :--- | :--- | ---: |
| CS-135 | Programming for Non-CS |  |
| Majors | 3 |  |
| BI-141 | Intro to Cellular and <br> Molecular Biology | 4 |
| BI-203 | Genetics | 4 |
| BT-378 | Bioinformatics | 4 |
| Electives - take two courses | $5-8$ |  |


| CS-131 | Data Visualization and <br> Statistical Analysis |
| :--- | :--- |
| CS-234 | Data Mining for Non-Cs <br> Majors |
| BT-350 | Genomics |
| BI-354 | Systematics and Evolution |


| BI-401 | Selected Topics: Biological <br> Sciences ((as approved by <br> the Bioinformatics advisory <br> board)) |
| :--- | :--- |
| MA-260 | Linear Algebra |
| MA-302 | Probability and Statistics |
| CH-350 | Medicinal Chemistry ((will <br> not double count as an |
| PH-134 | Computing Ethics |
| Besearch/Internship in Bioinformatics |  |

1. Understand the intersectionality of biology, computer science, and mathematics in the context of the field
2. Utilize existing tools to evaluate bioinformatics data, discover patterns, and draw conclusions
3. Communicate bioinformatics information in both written and oral forms
4. Develop laboratory skills that are used in the bioinformatics field

## Bioinformatics Minor for Computer Science Majors

The purpose of this interdisciplinary minor is to prepare students to enter the computer-intensive fields of bioinformatics, computational biology, computational chemistry, and molecular modeling, including genomics and proteomics. With the everincreasing number of fully sequenced genomes, including the human genome, biological databases have grown at such a rate that storing, organizing, indexing, and ultimately mining the data have become key to answering biological questions. The methodologies of genomics, transcriptomics, and
proteomics analyze genome structures, patterns of gene expression, and protein structure and function, respectively. Information obtained by computational biology and computational chemistry is used in the design of new drugs to treat a variety of diseases. Major drug and biotechnology companies are eager to hire people trained in the combination of biology and computer science skills that this minor provides.

## Bioinformatics Minor for Computer Science Majors Program Requirements

| Code | Title | Credits |
| :--- | :--- | ---: |
| Courses with an asterisk can double count for |  |  |
| ancillary/lab science requirements for the major) |  |  |
| BI-141 |  |  |
|  | Intro to Cellular and |  |
| Molecular Biology (*) |  |  |$\quad 4$

Total Credits
20-23

1. Understand the intersectionality of biology, computer science, and mathematics in the context of the field
2. Utilize existing tools to evaluate bioinformatics data, discover patterns, and draw conclusions
3. Communicate bioinformatics information in both written and oral forms
4. Develop laboratory skills that are used in the bioinformatics field

## Bioinformatics Minor for non-Biology, Biotechnology, Chemistry, or Computer Science Majors

The purpose of this interdisciplinary minor is to prepare students to enter the computer-intensive fields of bioinformatics, computational biology, computational chemistry, and molecular modeling, including genomics and proteomics. With the everincreasing number of fully sequenced genomes, including the human genome, biological databases have grown at such a rate that storing, organizing, indexing, and ultimately mining the data have become key to answering biological questions. The methodologies of genomics, transcriptomics, and proteomics analyze genome structures, patterns of gene expression, and protein structure and function, respectively. Information obtained by computational biology and computational chemistry is used in the design of new drugs to treat a variety of diseases. Major drug and biotechnology companies are eager to hire people trained in the combination of biology and computer science skills that this minor provides.

## Bioinformatics Minor (for majors other than Biology, Biotechnology, Chemistry, or Computer Science) Program Requirements

| Code | Title | Credits |
| :---: | :---: | :---: |
| CS-135 | Programming for Non-CS | 3 |
|  | Majors |  |
| BI-141 | Intro to Cellular and | 4 |
|  | Molecular Biology |  |
| BI-203 | Genetics | 4 |
| BT-378 | Bioinformatics | 4 |
| Electives - take two courses |  | 5-8 |
| CS-131 | Data Visualization and Statistical Analysis |  |
|  |  |  |
| CS-234 | Data Mining for Non-Cs |  |
|  | Majors |  |
| BT-350 | Genomics |  |
| BI-354 | Systematics and Evolution |  |


| BI-401 | Selected Topics: Biological Sciences ((as approved by the Bioinformatics advisory board)) |
| :---: | :---: |
| MA-260 | Linear Algebra |
| MA-302 | Probability and Statistics |
| MA-303 | Mathematical Modeling |
| CH-450 | Computational Chemistry |
| PH-134 | Computing Ethics |
| Research/Internship in Bioinformatics |  |
| BI-240 | Research Experience |
| BI-403 | Internship: Biology |
| BI-440 | Advanced Research <br> Experience for <br> Undergraduates |
| CS-498 | Internship: Computer Science |
| CS-499 | Independent Study: Computer Science |
| CH-480 | Internship: Chemistry |
| Total Credits |  |

1. Understand the intersectionality of biology, computer science, and mathematics in the context of the field
2. Utilize existing tools to evaluate bioinformatics data, discover patterns, and draw conclusions
3. Communicate bioinformatics information in both written and oral forms
4. Develop laboratory skills that are used in the bioinformatics field

## Biology Major

Requirements for a Major in Biology

| Code | Title | Credits |
| :---: | :---: | :---: |
| Required Biology courses |  | (38 |
|  |  | credits) |
| BI-140 | Introduction to Organismal | 4 |
|  | Biology |  |
| BI-141 | Intro to Cellular and | 4 |
|  | Molecular Biology |  |
| BI-200 | Human Biology (OR BI-161 | 4 |
|  | AND BI-162 (Human |  |
|  | Anatomy \& Physiology I \& II)) |  |
| BI-202 | Principles of Ecology | 4 |
| BI-203 | Genetics | 4 |
| BI-204 | Microbiology | 4 |



## Total Credits

Students who also complete $\mathrm{CH}-203$ and $\mathrm{CH}-204$, and 3 additional credits in 200-level or higher chemistry courses can earn a chemistry minor.

## Biology Upper-Level Electives

| Code | Title | Credits |
| :--- | :--- | ---: |
| Cellular \& Molecular Pathways |  |  |
| BI-306 | Developmental Biology | 4 |
| BI-324 | Endocrinology | 4 |
| BI-341 | Mycology | 4 |
| BI-371 | Advanced Topics in Cell and | 4 |
|  | Molecular Biology |  |
| BI-372 | Immunology | 4 |
| BI-375 | Virology | 4 |
| BI-398 | Cancer Biology | 4 |
| BT-375 | Tissue Culture | 4 |
| BT-376 | Biotechnology | 4 |
| BT-377 | Fermentation Technology | 4 |
| BT-378 | Bioinformatics | 4 |
| BI/CH-410 | Biochemistry I | 4 |
| Organismal \& Ecological Systems | 4 |  |
| BI-301 |  | 4 |
| BI-303 | Topics in Invertebrate | 4 |
| BI-304 | Zoology | 4 |
| BI-321 | Parasitology | 4 |
|  | Comparative Vertebrate | 4 |
|  | Comparative Neurobiology | 4 |
|  | Marine Biology | 4 |


| BI-333 | Topics in Vertebrate Zoology | 4 |
| :--- | :--- | :--- |
| BI-334 | Wildlife Biology | 4 |
| BI-340 | Plant Sciences | 4 |
| BI-344 | Soil Biology | 4 |
| BI-360 | Animal Behavior | 4 |
| BI-380 | Biodiversity and | 4 |
|  | Conservation Biology |  |

(Note: Pre-med and graduate school candidates should also take $\mathrm{CH}-203$ \& $\mathrm{CH}-204$ in addition to $\mathrm{CH}-201$ and $\mathrm{CH}-202$ )

A minimum of three upper division laboratory courses (BI 300- or BI 400-level) are to be selected. Students must take at least one course from each category. Additional upper level elective courses or graduate research/internships are strongly encouraged. The courses should be selected with the advice and consent of the faculty advisor. A grade point average of 2.0 must be maintained in biology courses and in the ancillary science and mathematics courses. Students considering graduate and professional work should take, as a recommended minimum, calculus and introduction to computer science.

## Sample Timeline for Completion of Degree

Year One

| Semester One | Credits |  |
| :--- | :--- | ---: |
| BI-140 | Introduction to Organismal | 4 |
|  | Biology |  |
| CH-120 | General Chemistry I | 4 |
| EN-101 | College Writing I | 3 |
| MA-190 | Pre-calculus | 4 |
| LASC | First-Year Seminar (p. 50) | 3 |
|  | Credits | 18 |

Semester Two

| BI-141 | Intro to Cellular and <br> Molecular Biology | 4 |
| :--- | :--- | ---: |
| CH-121 | General Chemistry II | 4 |
| EN-102 | College Writing II ${ }^{1}$ | 3 |
| MA-150 | Statistics I | 3 |
|  | Credits | $\mathbf{1 4}$ |
| Year Two |  |  |
| Semester Three |  | 4 |
| BI-204 | Microbiology | 3 |
| CH-201 | Organic Chemistry I (lecture) |  |
|  | 5 |  |


| LASC | LASC Elective (ICW) (p. 55) | 4 |
| :--- | :--- | :--- |
| LASC | LASC Elective (CON) $(\text { p. 47) })^{4}$ | 3 |
| LASC | LASC Elective (USW) $($ p. 60) | 3 |
|  | 4 |  |
|  | Credits | $\mathbf{1 6}$ |


| Semester Four |  |  |
| :--- | :--- | ---: |
| BI-203 | Genetics | 4 |
| CH-202 | Organic Chemistry II (lecture) | 3 |
|  | 5 |  |
| LASC | LASC Elective (GP) (p. 51) |  |
| LASC | LASC Elective (CA) (p. 48) |  |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
|  | Credits | 3 |


| Year Three |  |  |
| :--- | :--- | ---: |
| Semester Five |  | 4 |
| BI-202 | Principles of Ecology | 4 |
| PY-221 | General Physics I $^{6,7}$ | 3 |
| LASC | Ancillary or LASC | 3 |
| LASC | Distribution (p. 46) |  |

## Semester Six

| BI-200 | Human Biology $^{4}$ | 4 |
| :--- | :--- | ---: |
| BI-3XX+ | 300 or 400 Major Elective |  |
| PY-222 | General Physics II $^{6}$ | 4 |
| LASC | LASC Elective (HBS) (p. 53) ${ }^{4}$ | 3 |
|  | Credits | $\mathbf{1 1}$ |

## Year Four

Semester Seven

| BI-3XX+ | 300 or 400 Major Elective <br> Lab | 4 |
| :--- | :--- | ---: |
| BI-3XX+ | Lab <br>  <br> LASC | LASC Elective (p. 46) |


| Semester Eight |  |  |
| :--- | :--- | ---: |
| BI-3XX+ | Lab | 4 |
|  | Biology Seminar ${ }^{8}$ | 2 |
| BI-404 | Additional Science | 4 |
| SELECT | General Elective | 3 |
| SELECT | Credits | 13 |
|  | Total Credits | $\mathbf{1 1 6}$ |

${ }^{3}$ MA-150 requires an Accuplacer score of 4 or higher.
${ }^{4}$ The sequence of LASC courses is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.
${ }^{5}$ Pre-med and Graduate school candidates should also take CH-203 \& CH-204
in addition to $\mathrm{CH}-201$ and $\mathrm{CH}-202.200$ level Biology courses may be taken in any order.
${ }^{6}$ Physics Requirements: PY-221 \& PY-222 OR PY-241 \& PY-242 satisfies LASC NSP.
${ }^{7}$ All biology core courses must be completed before taking $\mathrm{BI}-404$ (BI-140, $\mathrm{BI}-141, \mathrm{BI}-200$ or $\mathrm{BI}-161$ \& BI-162, BI-202, BI-203, BI-204).

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Cellular \& Molecular Biology Minor

The Cellular \& Molecular Biology minor will give you broad understanding of the foundational building blocks of all life, making connections between molecules, cells, and tissues, and exploring their functions in healthy and diseased states. The minor curriculum will develop your critical thinking and communication skills, as well as training you in modern laboratory techniques used in the field to prepare you for a multitude of careers in the life sciences, healthcare, education, and beyond. One course in chemistry or biochemistry is required, but there are several options to fulfill this requirement, making this minor accessible to students pursuing many different majors.

| Code | Title | Credits <br> Required Courses |
| :--- | :--- | ---: |
|  |  | $(12$ <br> credits) |
| One course from: |  | 4 |
| CH-120 | General Chemistry I |  |
| CH-112 | Survey of Chemistry |  |

${ }^{1}$ EN-101 and EN-102 satisfy LASC Writing.
${ }^{2}$ MA-190 requires an Accuplacer score of 6 or higher.

| BI-410 | Biochemistry I Chemistry majors should take Biochemistry I as BI-410 and count it towards the minor rather than the major. |  |
| :---: | :---: | :---: |
| BI-141 | Intro to Cellular and Molecular Biology | 4 |
| BI-203 | Genetics | 4 |
| Electives - three cour the $\mathbf{3 0 0}$ or $\mathbf{4 0 0}$ level) | urses from (including one at ): | $\begin{array}{r} (0 \\ \text { credits) } \end{array}$ |
| Microbiology - only one course from this group |  |  |
| BI-112 | Diseases and Mankind |  |
| BI-204 | Microbiology |  |
| BI-206 | Medical Microbiology |  |
| BI-207 | Public Health Microbiology |  |
| Electives |  |  |
| BI-240 | Research Experience |  |
| BI-303 | Parasitology |  |
| BI-306 | Developmental Biology |  |
| BI-324 | Endocrinology |  |
| BI-341 | Mycology |  |
| BI-342 | Plant Physiology |  |
| BI-344 | Soil Biology |  |
| BI-354 | Systematics and Evolution |  |
| BI-371 | Advanced Topics in Cell and Molecular Biology |  |
| BI-372 | Immunology |  |
| BI-375 | Virology |  |
| BI-398 | Cancer Biology |  |
| BI-410 | Biochemistry I |  |
| BT-350 | Genomics |  |
| BT-376 | Biotechnology |  |
| BT-378 | Bioinformatics |  |

Total Credits

Or another course approved by the Biology chair

1. Students will be able to describe the structure and functions of biological macromolecules and how they come together to form the structures and perform the fundamental activities of cells.
2. Students will be able to describe the pathways of information flow in cells.
3. Students will be able to relate the behaviors of molecules and cells to features of whole organisms.
4. Students will demonstrate competence in basic cell and molecular biology laboratory skills, including: pipetting, microscopy, cellular fractionation, molecular separation, performing enzymatic reactions, etc.
5. Students will be able to relate their knowledge of cell and molecular biology to topics that are important in everyday life.

## Ecology Minor

The Ecology minor will provide you with a broad understanding of the fundamental ecological processes that shape the diversity, distribution, and abundance of organisms across the planet. Through a combination of classroom learning, fieldwork, and laboratory experiments, this minor will provide you with the practical and quantitative skills to collect, analyze, and interpret ecological data. The minor emphasizes critical thinking, problem solving, and communication skills that will prepare you well for a diversity of career paths, including environmental science, natural resource management, and conservation.

| Code | Title | Credits |
| :--- | :--- | ---: |
| BI-140 | Introduction to Organismal <br> Biology | 4 |
| BI-202 | Principles of Ecology | 4 |
| MA-150 | Statistics I | 3 |
| or MA-302 | Probability and Statistics |  |
| GS-165 | Geographic Information <br> Systems I | 4 |
| or CS-135 | Programming for Non-CS Majors |  |

## Minor Electives

Select 2 of the following:

| BI-301 | Topics in Invertebrate <br> Zoology <br> or BI-304 |
| ---: | :--- |
| or BI-331 | Comparative Vertebrate Anatomy |
| or BI-333 | Marine Biology |
| or BI-334 | Wildlife Biology |
| or BI-340 | Plant Sciences |
| or BI-360 | Animal Behavior |
| or BI-380 | Biodiversity and Conservation Biology |
| Total Credits |  |

1. Identify and describe the mechanisms that influence the structure and function of ecological systems
2. Critically evaluate the primary literature in ecology
3. Analyze complex ecological data-sets

## Honors Program in Biology

Honors in Biology is a distinction bestowed on those outstanding undergraduate Biology majors who have demonstrated distinct competence in overall biology coursework and who have completed an independent research project of substantial merit. This program offers motivated students the opportunity to develop research and communication skills in preparation for graduate school or a professional career. For more information and specific program requirements, contact Dr. Randall Tracy in the Biology Department.

## Requirements for the Honors Program in Biology

| Code | Title | Credits |
| :--- | :--- | ---: |
| Required Biology courses | $(38$ <br> credits) |  |
| BI-140 | Introduction to Organismal <br> Biology | 4 |
| BI-141 | Intro to Cellular and |  |
|  | Molecular Biology | 4 |
| BI-200 | Human Biology | 4 |
| BI-202 | Principles of Ecology | 4 |
| BI-203 | Genetics | 4 |
| BI-204 | Microbiology | 4 |
| BI-404 | Biology Seminar | 2 |
| 3 Upper Division Electives (300 or 400 level lab | 12 |  |
| courses) |  |  |

Ancillary Requirements
credits)

| MA-150 | Statistics I | 3 |
| :--- | :--- | ---: |
| MA-190 | Pre-calculus (or Higher) | 4 |
| CH-120 | General Chemistry I <br> and General Chemistry II | 8 |
| \& CH-121 | Organic Chemistry I (lecture) <br> and Organic Chemistry II <br> (lecture) | 6 |
| \& CH-202 | General Physics I <br> and General Physics II | 8 |
| PY-221 | \& PY-222 | Physics I (Mechanics) <br> or PY-241 <br> \& PY-242 |
|  | and Physics II ( Electricity, Magnetism <br> and Optics ) |  |


| Honors Program Requirements | (3-8 <br> credits) |  |
| :--- | :--- | ---: |
| BI-205 | Research Techniques and <br> Experimental Design | 2 |
| BI-440 | Advanced Research <br> Experience for <br> Undergraduates | $1-6$ |
| Total Credits | 70-75 |  |
| 1 "Commendation in Biology" requires 3 credits of |  |  |
| BI-440 and a minimum 3.0 GPA in biology courses. <br> "Honors in Biology" requires 5 credits of BI-440 and <br> a minimum of 3.5 GPA in biology courses. |  |  |

Students who also complete CH-203 and CH-204 can earn a chemistry minor.

For more information and specific program requirements, contact Dr. Randall Tracy in the Department of Biology.

## Biology Major and Prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Sciences

## Requirements for a Major in Biology and to meet the prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Sciences

| Code | Title | Credits |
| :--- | :--- | ---: |
| Required Biology courses | (38 <br> credits) |  |
| BI-140 | Introduction to Organismal <br> Biology | 4 |
| BI-141 | Intro to Cellular and <br> Molecular Biology | 4 |
| BI-200 | Human Biology (Or BI-161 <br> Human Anatomy and | 4 |
|  | Physiology I and BI-162 <br>  <br> Physiology II (8 credits)) |  |


| BI-202 | Principles of Ecology | 4 | MA-201 | Calculus II | 4 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| BI-203 | Genetics | 4 | LASC | Distribution Elective (CON) ${ }^{1}$ | 3 |
| BI-204 | Microbiology | 4 |  | Credits | 18 |
| BI-404 | Biology Seminar | 2 | Year Two |  |  |
| 3 Upper Division Electives ( 300 or 400 level lab courses) |  | 12 | Semester Three BI-203 | Genetics | 4 |
| Ancillary Requirements |  | $\begin{array}{r} (29 \\ \text { credits) } \end{array}$ | $\begin{aligned} & \text { CH-201 } \\ & \& \text { CH-203 } \end{aligned}$ | Organic Chemistry I (lecture) and Organic Chemistry Laboratory I | 5 |
| MA-150 | Statistics I | 3 | $\& \mathrm{CH}-203$ |  |  |
| MA-190 | Pre-calculus (or Higher) | 4 | PY-221 | General Physics I ${ }^{2}$ | 4 |
| CH-120 | General Chemistry I and General Chemistry II | 8 | or PY-241 | or Physics I (Mechanics) |  |
| \& CH-121 |  |  | LASC | Distribution Elective (HBS)(p. 53) | 3 |
| CH-201 | Organic Chemistry I (lecture) and Organic Chemistry II (lecture) | 6 |  |  |  |
| \& CH-202 |  |  | Semester Four | Credits | 16 |
| PY-221 | General Physics I and General Physics II | 8 | BI-204 | Microbiology | 4 |
| \& PY-222 <br> or PY-241 <br> \& PY-242 | Physics I (Mechanics) and Physics II (Electricity, Magnetism and Optics ) |  | $\begin{aligned} & \text { CH-202 } \\ & \& \mathrm{CH}-204 \end{aligned}$ | Organic Chemistry II (lecture) and Organic Chemistry Laboratory II | 5 |
| Accelerated Pharmacy Program |  | credits) | or PY-242 | or Physics II (Electricity, Magnetism and Optics ) |  |
| CH-203 | Organic Chemistry Laboratory I | 2 | LASC | LASC Elective (ICW) (p. 55) | 3 |
| MA-200 | Calculus I | 4 |  | Credits | 16 |
| Math or Computer Science Elective (e.g.: MA-190, MA-201, CS-101) |  | 3 | Semester Five |  |  |
| Total Credits |  | 76 | B1-200 | Human Biology | 4 |
|  |  |  | MA-150 | Statistics I | 3 |
| Department of Biology: WSU/ MCPHS 3+3 Curriculum Guide for Biology Majors |  |  | LASC | Distribution Elective (USW) (p. 60) | 3 |
|  |  |  | LASC | Distribution Elective (GP) (p. 51) | 3 |
| Sample Timeline for Completion |  |  | BI-202 | Principles of Ecology | 4 |
| of Degree |  |  |  | Credits | 17 |
|  |  |  | Semester Six |  |  |
| Year One |  |  | LASC | Distribution Elective (CA) | 4 |
| Semester One |  | Credits |  | (p. 48) |  |
| EN-101 | College Writing I | 3 | BI-404 | Biology Seminar | 2 |
| $\mathrm{CH}-120$ | General Chemistry I | 4 | Optional | Upper Level Elective | 4 |
| BI-140 | Introduction to Organismal | 4 |  | (Optional) |  |
|  | Biology |  | LASC | Distribution Elective (TLC) | 3 |
| LASC | First-Year Seminar (p. 50) | 3 |  | (p.61) |  |
| MA-200 | Calculus I | 4 | LASC | Distribution Elective (p. 46) | 3 |
|  | Credits | 18 |  | Credits | 16 |
| Semester Two |  |  |  | Total Credits | 101 |
| EN-102 | College Writing II | 3 |  |  |  |
| CH-121 | General Chemistry II | 4 | ${ }^{1}$ Winter session or Summer after 1st and 2nd years: one course that meets LASC requirements ( 6 credits total). LASC requirements should |  |  |
| BI-141 | Intro to Cellular and Molecular Biology | 4 |  |  |  |  |  |

include: Introduction to Psychology, Introduction to Sociology, a course that fulfills the Constitutions, Economics, and an upper level (beyond first semester) behavioral science (Psychology or Sociology).
${ }^{2}$ PY-241 and can be taken in place of PY-221 andPY-222, however these should be taken concurrently with or after calculus. The 200 level Biology courses may be taken in any order.

Note: Total Credits taken at $\mathrm{WSU}=105$. Remaining credits are transferred from MCPHS and fulfill upper level biology electives.

Students interested in pursuing the 3+3 Pharmacy program should meet with Dr. Daron Barnard in the Biology Department as early as possible in their undergraduate studies to ensure they are on track to apply for the program in the fall of their third year.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Psychobiology Minor

Psychobiology, the study of human and animal biology and behavior, is an interdisciplinary minor offered at Worcester State consisting of 6-7 classes (18-24 credits), with significant course contributions from the Biology and Psychology Departments. The Psychobiology minor allows students to explore the links between mind, body, and behavior, learning from accomplished faculty with expertise in the areas of neuroscience, animal behavior, human perception, cognition, and learning along with other specialties within psychology and biology.

Introductory courses include both Biology and Psychology, grounding students in the basics of both disciplines. Advanced courses provide an in-depth understanding of the nervous system, evolutionary biology, cellular physiology, and sensation and perception. Students will have the opportunity for hands-on learning to put course concepts into action.

All students are eligible to pursue the Psychobiology minor by following either the General Track or one of two specialized tracks: Biology Major Track or Psychology Major Track. These tracks are specialized to assure that students who major in Biology and Psychology receive an appropriate breadth of experiences within the field of Psychobiology to complement their chosen major.

## Requirements for a Psychobiology Minor

## General Track

(Available to all majors except Biology and Psychology)

| Code | Title | Credits |
| :---: | :---: | :---: |
| Core |  | (11 |
|  |  | credits) |
| PS-101 | General Psychology | 3 |
| BI-116 | Animal Biology | 4 |
| PB-200 | Introduction to | 4 |
|  | Psychobiology |  |
| Electives |  | (10-11 |
|  |  | credits) |
| Students must select ONE course from Group A, ONE course from Group B, and ONE course from Group C: |  | 10-11 |
|  |  |  |
|  |  |  |
| Group A (200-level) |  |  |
| PS-280 | Sensation and Perception |  |
| BI-200 | Human Biology |  |
| Group B (300-level Psychology) |  |  |
| PS-325 | Psychology of Learning |  |
| PS-230 | Brain and Behavior |  |

Group C (300-level Biology w/lab)

| BI-315 | Comparative Neurobiology |  |
| ---: | :--- | ---: |
| BI-360 | Animal Behavior |  |
| Capstone |  | $(\mathbf{2}$ |
| credits) |  |  |

## Biology Major Track (Only available to Biology majors)

| Code | Title | Credits |
| :--- | :--- | ---: |
| Core/Foundation |  | $(16$ |
|  |  | credits) |
| PS-101 | General Psychology | 3 |


| PB-200 | Introduction to <br>  <br>  <br> Psychobiology | 4 |
| :--- | :--- | ---: |
| PS-280 | Sensation and Perception | 3 |
| PS-325 | Psychology of Learning | 3 |
| PS-230 | Brain and Behavior | 3 |
| Capstone |  | $(\mathbf{2}$ |
|  |  | credits) |
| PB-400 | Capstone in Psychobiology | 2 |
| Total Credits |  | $\mathbf{1 8}$ |

## Psychology Major Track (Only

 available to Psychology majors)| Code | Title | Credits |
| :--- | :--- | ---: |
| Core/Foundation |  | $(20$ <br> credits) |
| BI-116 | Animal Biology | 4 |
| PB-200 | Introduction to |  |
|  | Psychobiology | 4 |
| BI-200 | Human Biology | 4 |
| BI-315 | Comparative Neurobiology | 4 |
| BI-360 | Animal Behavior | 4 |
| Capstone |  | $\mathbf{( 2}$ |
|  |  | credits) |
| PB-400 | Capstone in Psychobiology | 2 |
| Total Credits |  | $\mathbf{2 2}$ |

Note: Completing this minor also satisfies the LASC requirements of HBSP, NSP w/ Lab (2x), and the capstone requirement.

1. Students will demonstrate a working knowledge of the following core content areas, as they specifically pertain to the relationship between biological and psychological functioning in human and non-human animals: cellular and molecular neurobiology, evolution, sensory and motor systems, learning and memory, mental disorders, and social behavior
2. Students will use and evaluate contemporary theories to explain and make novel predictions regarding the relationship between biological and psychological functioning.
3. Students will integrate core concepts from biological and psychological approaches to explain the bidirectional interaction between biological and psychological functioning, including articulating the relationship between structure and function, as well as similarities and differences across human and non-human animals.
4. Students will conduct basic psychobiology research, use scientific reasoning to interpret claims, justify methodological decisions, and utilize proper laboratory protocols.
5. Students will demonstrate effective communication of scientific information through clear and concise written communication and oral presentations for various audiences.
6. Students will collaborate successfully on group activities
7. Students will conduct themselves respectfully toward others in the context of scientific discussions and debates.
8. Students will demonstrate self-reflection through the incorporation of feedback from educators and peers
9. Students will describe, explain, and practice ethical standards and integrity within the discipline of psychobiology.
10. Students will discuss historical and contemporary examples of the impact of psychobiological research on society.

## Biotechnology <br> Department of Biology: Biotechnology Major

The Biotechnology major is housed in the Biology Department but is sponsored jointly by the departments of Biology (p. 176)and Chemistry (p. 202). The Biotechnology major is designed to meet the need for skilled laboratory associates in the experimental laboratory and manufacturing facilities of the biotechnology industry. Biotechnology graduates are trained in tissue culture, molecular biology, protein purification, analytical chemistry, and regulatory affairs and are eligible for internships in local biotechnology companies. Graduates are qualified for careers in research and development, quality assurance, quality control, and manufacturing as well as for further graduate or professional education. Students who meet the requirements for the 4+1 Program in Biotechnology may complete both B.S. and M.S. degrees in Biotechnology in 5 years, beginning to take graduate courses in their fourth year of study. Students interested in the health professions may opt for a major in Biotechnology with a concentration in Pre-medicine, and those interested in applying computer-based analysis to biological problems may complete a concentration in Bioinformatics, sponsored jointly with the Computer Science Department. Biotechnology majors are not eligible for a Chemistry minor.

- 4+1 BS/MS Program in Biotechnology (p. 196)
- Biotechnology (p. 197)
- Honors Program in Biotechnology (p. 200)
- Major in Biotechnology and prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Sciences (p. 200)
- Major in Biotechnology, Concentration in Bioinformatics (p. 201)
- Major in Biotechnology, Concentration in PreMedicine (p. 309)


## Faculty

Roger S. Greenwell, Co-Coordinator of the Biotechnology Program, Associate Professor (2014), B.S., Western Kentucky University; Ph.D., University of Wisconsin-Madison

Jeffry C. Nichols, Professor (2006), B.A., Texas Tech
University; Ph.D., Rice University
Maura Pavao, Professor (2001), B.S., Worcester
Polytechnic Institute; M.S., Ph.D. Rutgers University
Weichu Xu, Co-Coordinator of the Biotechnology Program, Associate Professor (2016), B.S., Suzhou
University Suzhou China; M.S., Ph.D., Chinese
Academy of Sciences

## Courses

BT-101 Introduction to Forensic Sciences LASC Categories: NSP, HBS, LAB
Prerequisites: Math placement code of 3 or higher. Survey of forensic case studies and the laboratory techniques used to solve crimes including microscopy, chromatography, ballistics and DNA analysis.
Every year. 4 Credits
BT-240 Research Experience for Undergraduates
Lab and/or field based research on a specific research topic under the supervision of a faculty member. Permission of instructor and department chair required.
Fall and Spring. 1-6 Credits

## BT-350 Genomics

Prerequisites: $\mathrm{BI}-141$ and $\mathrm{BI}-203$.
This course will examine the structure and function of genomes, as well as the tools and techniques of this multidisciplinary and growing field, with emphasis on how bioinformatic approaches can be utilized to address biological problems at the level of the entire genome. A major topic will be the application of computer-based techniques for the identification, comparison, and analysis of genomes and their products. Three lecture hours and three laboratory hours per week.
Fall and Spring and every 2-3 years. 4 Credits
BT-360 Introduction to Bioprocessing
LASC Categories: NLL
Prerequisites: $\mathrm{BI}-204$ as a pre-requisite, or $\mathrm{CH}-410$ as a co-requisite.
This laboratory course covers the process development and manufacturing of biologics. It includes process development, upstream, downstream and other topics central to large scale production. At the end of the course, students will see the importance of every step from discovery to bulk fill in providing safe drugs to market. Fall only and every 2-3 years. 4 Credits

## BT-375 Tissue Culture <br> LASC Categories: NLL

Prerequisites: $\mathrm{BI}-204$ and $\mathrm{CH}-210$ with a grade of C or above.
A review of the methods of animal and plant tissue culture. Media preparation, aseptic techniques and cell culture technology. Three lecture hours and three laboratory hours per week.
Spring only and every year. 4 Credits

## BT-376 Biotechnology

LASC Categories: NLL
Prerequisites: $\mathrm{CH}-120, \mathrm{CH}-121, \mathrm{BI}-141$ and $\mathrm{BI}-204$
with a grade of C - or above.
Principles, applications of recombinant DNA
(molecular/microbial aspects). The Biotechnology industry including bioreactor manufacturing standards and government rules. Three lecture hours and three laboratory hours per week.
Fall only and every year. 4 Credits

## BT-377 Fermentation Technology LASC Categories: NLL

Prerequisites: $\mathrm{BI}-141$ and $\mathrm{BI}-204$ with a grade of C - or above.
Explores the application of biological and engineering principles involved in manufacturing pharmaceutical products.
Every 2-3 years. 4 Credits

## BT-378 Bioinformatics

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-141$ and $\mathrm{BI}-203$ with a grade of C - or above.
Provides an overview of Bioinformatics including database structure, genomics, computational biology and proteomics. Three lecture hours and three laboratory hours per week.
Every 2-3 years. 4 Credits

## BT-408 Directed Study: Biotechnology

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Other or on demand. 3 Credits

## BT-410 Biotechnology Seminar

LASC Categories: CAP
Up-to-date developments in Biotechnology; reparation and presentation of technical literature. Students will study new techniques and procedures used by the industry.
Spring only and every year. 1-4 Credits

## BT-440 Advanced Research Experience

Prerequisites: BI-205. Instructor permission required. Junior/Senior standing required.
Advanced lab and/or field based research on a specific research topic under the supervision of a faculty member. Permission of instructor and department chair required.
Fall and Spring. 1-6 Credits

## BT-450 Internship in Biotechnology

Qualified upper-level biotechnology majors can learn experimental techniques by working in a company laboratory or a professional manufacturing environment. Permission of faculty sponsor and department chair required.
Fall and Spring. 3-6 Credits

## Program Learning Outcomes

- Apply broad knowledge of the sciences as they apply to biotechnology, including the following core content areas:
- Cell biology
- General chemistry principles
- Molecular biology and genomics
- Biochemistry
- Physics and mathematics
- The application of cells and organisms for industrial purposes
- Think critically and apply analytical skills
- Gather, organize, interpret and evaluate data
- Design appropriate experiments to test a hypothesis
- Employ reason and logic, analyze pros and cons, and evaluate the validity of conclusions
- Perform laboratory techniques and practices used in the field
- Proper use of tools, equipment/ instrumentation, and materials
- Demonstration of safety procedures.
- Effectively communicate scientific information to lay and scientific audiences using written and oral forms of communication.
- Prepare poster presentation
- Prepare written material (reports, SOPs, etc.)
- Prepare oral presentations
- Exhibit an awareness of the social implications of biotechnology including how biotechnology shaped human development and the ethics of biotechnology, by addressing
- The effect of biotechnology on the environment
- The ethical issues that influence decisions related to biotechnology
- The impact of biotechnology on society


## 4+1 BS/MS Program in Biotechnology

The Five Year Combined 4+1 BS/MS Program in Biotechnology is open to eligible students and includes three courses ( 10 credits) that count toward both the undergraduate and graduate degrees. Students should apply in the fall semester of the junior year. The first three years are the same as the Biotechnology B.S. Program. Students begin a research project in the Spring semester of the fourth (senior) year. Application requirements include a minimum of 3.0 GPA, two letters of recommendation, and the GRE.

## Recommended Timeline for Completion of BS/MS Program



| Semester Two |  |  |
| :--- | :--- | ---: |
| EN-102 | College Writing II | 3 |
| CH-121 | General Chemistry II | 4 |
| MA-190 <br> or MA-200 | Pre-calculus <br> or Calculus I <br> BI-141 | Intro to Cellular and <br> Molecular Biology |
|  | Credits | 4 |

Year Two
Semester Three

| CH-201 | Organic Chemistry I (lecture) | 3 |
| :--- | :--- | ---: |
| CH-203 | Organic Chemistry <br> Laboratory I | 2 |
| BI-204 | Microbiology | 4 |
| MA-200 | Calculus I ((or LASC <br> Elective)) | 4 |
| EN-252or EN-253 <br> or CS-120 | Technical Writing <br> or Business <br> Communications <br> or Microcomputer <br> Applications | 3 |

Credits 16

| Semester Four |  |  |
| :--- | :--- | ---: |
| MA-150 | Statistics I | 3 |
| MA-201 | Calculus II | 4 |
| LASC | LASC Elective (p. 46) | 3 |
| LASC | LASC Elective (p. 46) | 3 |
| Select one of the following: | $3-5$ |  |
| CH-202 | Organic Chemistry II (lecture) |  |
| \& CH-204 | and Organic Chemistry  <br>  Laboratory II |  |
| LASC | LASC Elective (p. 46) |  |
|  | Credits | $\mathbf{1 6 - 1 8}$ |

Year Three
Semester Five

| CH-210 | Chemical Analysis: an <br> Introduction to Modern <br> Methods | 5 |
| :--- | :--- | ---: |
|  | General Physics I | 4 |
| PY-221 | LASC Elective (p. 46) | 3 |
| LASC | LASC Elective (p. 46) | 3 |
| LASC | Credits | $\mathbf{1 5}$ |
|  |  |  |
| Semester Six | Biochemistry I | 4 |
| CH-410 | General Physics II | 4 |
| PY-222 | LASC Elective (p. 46) | 3 |
| LASC | LASC Elective (p. 46) | 3 |
| LASC | Credits | $\mathbf{1 4}$ |

## Year Four

## Semester Seven

| BI-521 | Biotechnology and DNA | 4 |
| :--- | :--- | ---: |
| BI-440 | Advanced Research | $1-6$ |
|  | Experience for <br> Undergraduates |  |
|  | Major Upper Level Elective | 4 |
| BI-3XX | LASC Elective (p. 46) | 3 |


| LASC | LASC Elective (p. 46) | 3 |
| :---: | :---: | :---: |
|  | Credits | 15-20 |
| Semester Eight |  |  |
| BI-527 | Tissue Culture Techniques | 3 |
| BI-440 | Advanced Research | 3 |
|  | Experience for |  |
|  | Undergraduates |  |
| BT-410 | Biotechnology Seminar | 1 |
| BT-5XX | Major Upper Level Elective |  |
| SELECT | Major or LASC Elective | 3 |
|  | Credits | 10 |
| Summer I |  |  |
| BT-9XX | Graduate Level Elective | 3 |
|  | Credits | 3 |
| Summer II |  |  |
| BI-996 | Thesis Research I (or BT-9XX Graduate Level Elective) | 3 |
|  | Credits | 3 |
| Year Five |  |  |
| Semester One |  |  |
| $\begin{aligned} & \mathrm{BI}-942 \\ & \quad \text { or BI-943 } \end{aligned}$ | Biostatistical Analysis or Experimental Design | 3 |
| BI-9XX | Graduate Level Elective | 3 |
| Select One of the Following |  |  |
| BI-996 | Thesis Research I | 3 |
| BI-997 | Thesis Research II | 4 |
|  | Credits | 13 |
| Semester Two |  |  |
| BI-998 | Thesis Writing | 2 |
| BI-9XX:Graduate Level Elective |  | 3 |
| BI-997 | Thesis Research II (or BI-9XX Graduate Level Elective) | 4 |
|  | Credits | 9 |
|  | Total Credits | 145-153 |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Biotechnology <br> Requirements for a Major in Biotechnology



Select 8 credits from the following electives: 8

| $\mathrm{BI}-313$ | Cancer Biology |
| :--- | :--- |
| $\mathrm{BI}-398$ | Immunology |
| $\mathrm{BI}-372$ | Advanced Topics in Cell and <br> Molecular Biology |
| $\mathrm{BI}-371$ | Virology |
| $\mathrm{BI}-375$ | Medicinal Chemistry |
| $\mathrm{CH}-350$ | Organic Chemistry II (lecture) <br> and Organic Chemistry <br> Laboratory II (5) |
| CH-202 |  |
| \& CH-204 | Modern Physics |
| PY-310 | Biochemistry II |
| CH-411 | Fermentation Technology |
| BT-377 | Bioinformatics |
| BT-378 | Internship in Biotechnology |
| BT-450 | Green Chemistry |
| CH-335 | Computational Chemistry |
| CH-450 | Special Topics in Chemistry <br> (Organometallics in Organic |
| CH-455 |  |

And certain other $\mathrm{BI}-300, \mathrm{CH}-300$ and $\mathrm{PY}-300$
level courses with Biotech coordinator approval.
Ancillary courses

| MA-190 | Pre-calculus (may be waived) | 4 |
| :---: | :--- | :---: |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| or BI-203 | Genetics |  |

Select one of the following: 3

| EN-252 | Technical Writing |
| :--- | :--- |
| EN-253 | Business Communications |
| CS-120 | Microcomputer Applications |

Select one of the following: 8

| PY-221 | General Physics I |  |
| :--- | :--- | :--- |
| \& PY-222 | and General Physics II (8) |  |
| PY-241 | Physics I (Mechanics) |  |
| \& PY-242 | and Physics II (Electricity, <br> Magnetism and Optics ) (8) |  |
| Total Credits |  | 73 |

## Sample Timeline for Completion of Degree

Year One

| Semester One |  | Credits |
| :---: | :---: | :---: |
| EN-101 | College Writing ${ }^{1}$ | 3 |
| CH-120 | General Chemistry I | 4 |
| $\begin{aligned} & \text { MA-180 } \\ & \quad \text { or MA-190 } \end{aligned}$ | Introduction to Functions (LASC QR) ${ }^{2}$ <br> or Pre-calculus | 3-4 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| LASC | First-Year Seminar (p. 50) | 3 |
|  | Credits | 16-17 |
| Semester Two |  |  |
| EN-102 | College Writing II ${ }^{1}$ | 3 |
| CH-121 | General Chemistry II | 4 |
| $\begin{aligned} & \text { MA-190 } \\ & \text { or MA-200 } \end{aligned}$ | Pre-calculus (LASC QR) or Calculus I | 4 |
| BI-141 | Intro to Cellular and Molecular Biology | 4 |
|  | Credits | 15 |

Year Two

| Semester Three |  |  |
| :--- | :--- | ---: |
| BI-204 | Microbiology | 4 |
| CH-201 | Organic Chemistry I (lecture) | 3 |
| CH-203 | Organic Chemistry <br> Laboratory I | 2 |
| Select One of the Following | $\mathbf{3 - 4}$ |  |


| LASC | LASC Elective $\left(\right.$ p. 46) ${ }^{3}$ |
| :--- | :--- |
| MA-200 | Calculus I |

Select One of the Following 3
EN-252 Technical Writing

| EN-253 | Business Communications |  |
| :---: | :---: | :---: |
| CS-120 | Microcomputer Applications |  |
|  | Credits | 15-16 |
| Semester Four |  |  |
| LASC | LASC Elective (p. 46) | 3 |
| LASC | LASC Elective (p. 46) | 3 |
| MA-150 | Statistics I ${ }^{4}$ | 3 |
| Select One of the Following |  | 4 |
| BI-203 | Genetics |  |
| MA-201 | Calculus II |  |
| Select One of the Following |  | 3-5 |
| LASC | LASC Elective (p. 46) |  |
| $\begin{aligned} & \text { CH-202 } \\ & \& \mathrm{CH}-204 \end{aligned}$ | Organic Chemistry II (lecture) and Organic Chemistry Laboratory II |  |
|  | Credits | 16-18 |

## Year Three

Semester Five

| CH-210 | Chemical Analysis: an <br> Introduction to Modern <br> Methods | 5 |
| :--- | :--- | ---: |
|  | General Physics I (NSP) | 4 |
| PY-221 | LASC Elective (p. 46) ${ }^{3}$ | 3 |
| LASC | LASC Elective (p. 46) ${ }^{3}$ | 3 |
| LASC | Credits | $\mathbf{1 5}$ |

Semester Six

| CH-410 | Biochemistry I | 4 |
| :--- | :--- | :--- |
| PY-222 | General Physics II (NSP) | 4 |

LASC LASC Elective (p. 46) ${ }^{3}$ 3

| LASC | LASC Elective $(\mathrm{p} .46)^{3}$ | 3 |
| :--- | :--- | ---: |
| Credits | $\mathbf{1 4}$ |  |

## Year Four

Semester Seven


## Semester Eight

| BT-375 | Tissue Culture | 4 |
| :--- | :--- | ---: |
| BI-440 | Advanced Research <br> Experience for <br> Undergraduates | $1-6$ |
|  | Biotechnology Seminar | 1-4 |
| BT-410 | LASC Elective $(\text { p. 46 })^{3}$ | 3 |


${ }^{3}$ The sequence of LASC courses marked with ${ }^{3}$ is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.
${ }^{4}$ MA-150 requires an Accuplacer score of 4 or higher.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Honors Program in Biotechnology

Honors in Biotechnology is a distinction bestowed on those outstanding undergraduate Biotechnology majors who have demonstrated distinct competence in overall biotechnology course work and who have completed an independent research project of substantial merit. This program offers motivated students the opportunity to develop research and communication skills in preparation for graduate study or a professional career.

## Requirements for the Honors Program in Biotechnology

- A written thesis describing the student's original research
- Grade point average in major and ancillary courses of at least 3.5
- Successful completion of BI-205
- Enrollment in a minimum of one semester of independent study credit (BI-440) totaling at least 4 credits

Major in Biotechnology and prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Sciences

Requirements for a Major in Biotechnology and to meet the prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Sciences (MCPHS)
$\left.\begin{array}{llr}\text { Code } & \text { Title } \\ \text { Requirements for a Major in Biotechnology }\end{array} \quad \begin{array}{r}\text { Credits } \\ \text { (39 } \\ \text { credits) }\end{array}\right\}$

| Select two of the following electives: |
| :--- | :--- |
| $\mathrm{BI}-313$  <br> $\mathrm{BI}-398$ Cancer Biology <br> $\mathrm{BI}-372$ Immunology <br> $\mathrm{BI}-371$ Advanced Topics in Cell and <br> Molecular Biology <br> $\mathrm{BI}-375$ Virology <br> $\mathrm{CH}-350$ Medicinal Chemistry <br> $\mathrm{CH}-202$ Organic Chemistry II (lecture) <br> $\mathrm{CH}-204$ Organic Chemistry <br> Laboratory II |



## Major in Biotechnology, <br> Concentration in Bioinformatics

This concentration has been replaced by the minor in Bioinformatics Minor for Biology/Biotechnology Majors (p. 183).

## Chemistry

## Department of Chemistry

The chemistry program provides education and training to students who wish to pursue careers in chemistry, biotechnology, medicine, dentistry, allied health fields, science teaching, environmental science, materials science, and engineering. Chemistry is considered the central science because it is required for a full understanding of many other sciences as well as medicine. The Chemistry Department offers courses for general education and for majors in chemistry, biology, biotechnology, and nursing. The chemistry department offers indepth offerings in the areas of biochemistry, green chemistry and environmental chemistry, materials science and inorganic chemistry. The department offers opportunities for undergraduate research in organic chemistry, bioanalytical chemistry, nanoscience, and molecular modeling. The Chemistry Department promotes green chemistry in its curriculum and research. Majors in chemistry may be eligible for the Accelerated Pharmacy Program with the Massachusetts College of Pharmacy and Health Sciences. In addition, students may opt to major in Chemistry with a concentration in Pre-Medicine.

Certification by the American Chemical Society: The Chemistry Department at Worcester State University is among the programs approved by the American Chemical Society (ACS). The chemistry curriculum is reviewed by the ACS Committee on Professional Training on a five-year cycle and reports are made to the ACS annually.

Undergraduate chemistry majors who have demonstrated academic excellence and interest in research may participate in the Chemistry Honors Program. The department has a chapter of the Gamma Sigma Epsilon National Honor Society in chemistry for those who qualify.

- Bioinformatics Minor for Chemistry Majors (p. 184)
- Chemistry (p. 206)
- Chemistry Honors Program (p. 208)
- Major in Chemistry and prerequisites for the Accelerated Pharmacy Program (p. 209)
- Major in Chemistry, Concentration in Medicinal Chemistry (p. 209)
- Minor in Chemistry for the Medical Professions (p. 211)
- Minor in Pharmaceutical Science (p. 211)
- Minor in STEM (p. 211)


## Faculty

Jeremy R. Andreatta, Associate Professor (2012), B.S., Tarleton University; Ph.D., Texas A\&M University

Meghna Dilip, Department Chair, Professor (2008), B.S., University of Madras, India; M.S., Anna University India; M.S., Ph.D., University of Alabama

Eihab Jaber, Professor (2006), B.A., Hunter College; M.S., Ph.D., State University of New York Stony Brook

Margaret E. Kerr, Professor (2000), B.S., University of Maine; Ph.D., Wesleyan University

Susan Mitroka-Batsford, Associate Professor (2013), B.A., Rutgers University; Ph.D., Virginia Polytechnic Institute and State University

Kathleen Murphy, Associate Professor (2014), B.S., College of William and Mary; M.S., Ph.D., University Of Massachusetts, Amherst

Jeffry C. Nichols, Professor (2006), B.A., Texas Tech
University; Ph.D., Rice University
Joseph G. Quattrucci, Professor (2011), B.A., University of Southern Maine; Ph.D., University of Massachusetts Amherst

Weichu Xu, Co-Coordinator of the Biotechnology Program, Associate Professor (2016), B.S., Suzhou
University Suzhou China; M.S., Ph.D., Chinese
Academy of Sciences

## Courses

## CH-106 Paper Or Plastics?

LASC Categories: NSP
Students will study modern issues related to chemistry. These will include sustainability, green chemistry, climate change and the ozone layer. Every year. 3 Credits

## CH-112 Survey of Chemistry <br> LASC Categories: LAB, NSP

Chemical and physical properties of inorganic, organic and biochemical compounds with implications for human health and environment. Ancillary course - Nursing program. Three lecture hours and three laboratory hours per week.
Fall and Spring and every year. 4 Credits

## CH-120 General Chemistry I

LASC Categories: NLL, QR
Prerequisites: Math placement exam score of 5 or above required.
Modern survey of chemistry. Topics include chemical equations, properties of gases, atomic structure, periodic table, chemical bonding, chemistry of carbon. Three lecture hours and three laboratory hours per week. $\mathrm{CH}-120$ and $\mathrm{CH}-121$ provide the foundation for further courses in chemistry. Every year. 4 Credits

## CH-121 General Chemistry II

LASC Categories: NLL
Prerequisites: $\mathrm{CH}-120$ with a minimum grade of C Continuation of CH 120 . Topics include elements of thermodynamics, acids and bases, reaction rates, oxidation-reduction reactions, and electrochemistry. Three hours of lecture and a three-hour laboratory per week.
Spring only and every year. 4 Credits

## CH-193 Special Topics in Chemistry for First Year

 StudentsLASC Categories: FYS
Introductory level course covering topics of special interest to first-year students.
Every year. 3 Credits

## CH-201 Organic Chemistry I (lecture)

Prerequisites: $\mathrm{CH}-120$ and $\mathrm{CH}-121$ with a C - or above. Structure, reactions, mechanisms, and stereochemistry of the alkanes, alkenes, alkynes, dienes, alkyl halides. Introduction to aromatic chemistry.
Every year. 3 Credits
CH-202 Organic Chemistry II (lecture)
Prerequisites: $\mathrm{CH}-201$ with a C - or above.
Continuation of $\mathrm{CH}-201$. Reactions and mechanisms of aromatic chemistry; structures and reactions of alcohols, ethers, carboxylic acids, aldhydes, ketones. Every year. 3 Credits

## CH-203 Organic Chemistry Laboratory I

LASC Categories: NLL
Prerequisites or Corequisite: $\mathrm{CH}-201$ with a C- or above.
Techniques of preparation, purification, and identification of aliphatic compounds. One four- hour laboratory per week.
Every year. 2 Credits

## CH-204 Organic Chemistry Laboratory II

LASC Categories: NLL
Prerequisites: $\mathrm{CH}-203$ with a C- or above.
Prerequisites or Corequisite: Corequisite: $\mathrm{CH}-202$ (Cor better)
Application of basic and more advanced techniques to increasingly complicated synthetic problems. One four-hour laboratory per week.
Every year. 2 Credits
CH-210 Chemical Analysis: an Introduction to Modern Methods
LASC Categories: NLL, WAC
Prerequisites: $\mathrm{CH}-120, \mathrm{CH}-121$ (minimum grade C -), and EN-102.
Introduction to modern methods of chemical analysis including gravimetry, acid-base and redox titrations, potentiometry, UV-visible and atomic absorption spectrophotometry, and gas and HPLC chromatography. Three lecture hours and four laboratory hours per week.
Every year. 5 Credits
CH-215 Science of Stuff
LASC Categories: NSP
Students will engage in both lecture and hands-on activities to explore the synthesis/production, and properties of the "stuff" that makes up the world around us (e.g. concrete, plastic, paper, etc.). There will be a focus on the application of the scientific method, scientific reporting, and increasing scientific literacy by accessing the primary literature, studying current events, and the public perception of "science". Every year. 4 Credits
CH-250 Instrumental Technology for Forensic Analysis
LASC Categories: NSP, QAC, NLL
Prerequisites: $\mathrm{CH}-120$ and $\mathrm{CH}-121$, minimum grade C or take $\mathrm{CH}-112$, minimum grade C -
Introduction to instrumental techniques used to analyze crime scene evidence. Includes HPLC, IR spectrometry, Atomic spectroscopy, and GC-MS. Three lecture hours and three lab hours per week. Other or on demand. 4 Credits

## CH-260 Chemistry Literature Seminar <br> Prerequisites: $\mathrm{CH}-201$ and $\mathrm{CH}-203$

This course will serve to provide a foundation for chemistry majors in searching, evaluating, and using up-to-date chemical literature resources. Additionally, students will gain first-hand experience in scientific word processing, production of presentations (posters and slide shows), presentation (written and oral) scientific data, and chemical drawing software. This course will also introduce students to the wide variety of career and post-bachelor degree opportunities for chemists in addition to the different fields of chemistry (organic, inorganic, biochemistry, physical, analytical, etc.).
Spring only and every year. 1 Credit

## CH-290 Ind Study: Chemistry

Students will be introduced to the concepts of laboratory research through involvement in an original research project.
Fall and Spring and every year. 1-6 Credits
CH-301 Physical Chemistry I (Lecture Only)
Prerequisites: CH-120, CH-121, MA-200, MA-201, PY-241, and PY-242 with a C- or above.
Study of quantum theory, chemical bonding, spectroscopy, molecular structure, and computational molecular modeling. Three lecture hours per week.
Every year. 3 Credits

## CH-302 Physical Chemistry II (Lecture Only)

Prerequisites: $\mathrm{CH}-301$ with a grade of C - or better. Continuation of $\mathrm{CH}-301$. Study of first, second, and third laws of thermodynamics, and of chemical solution, and phase equilibria. Three lecture hours per week.
Every year. 3 Credits

## CH-303 Physical Chemistry Laboratory I LASC Categories: NLL

Prerequisites or Corequisite: $\mathrm{CH}-301$ with a C - or above.
Laboratory deals with methods of physical measurement of chemical systems and their application to the determination of molecular structure, spectroscopy and thermodynamic data. One four-hour laboratory per week, lecture is CH301. Other or on demand. 2 Credits

## CH-312 Tackling Global Issues using STEM

Prerequisites: Complete 15 credits at the 100/200 level in at least 4 categories from the STEM minor. The STEM Seminar is aimed to engage cohorts of students to develop and communicate solutions to real-world problems using the knowledge they've garnered during the courses above but also bringing the advanced skills they've gained during their major coursework to bear on a problem of their choosing. They will gain first-hand experience in choosing and defining a problem, identifying the issues that need to be addressed, developing plausible solutions, and communicating those ideas/solutions to a broad audience. Rotating global issues will be chosen each semester.
Every year. 3 Credits

## CH-320 Environmental Chemistry

LASC Categories: NLL
Prerequisites: $\mathrm{CH}-120$ and $\mathrm{CH}-121$ with a C - or above. Chemistry of the atmosphere, soil, and natural water systems, air and water pollution, water treatment, hazardous wastes and pollution control. Lab techniques including sampling and analysis of environmental media. Lecture 3 hours per week and Lab will meet once a week for 3 hours.
Fall only and every year. 4 Credits

## CH-330 Environmental Toxicology

Prerequisites: $\mathrm{CH}-201$ or $\mathrm{CH}-320$ with a C - or above. Topics include the pharmacological and biochemical properties of toxins and the effects of toxins on human health, including the assessment of risk(s). Every 2-3 years. 3 Credits

## CH-335 Green Chemistry

Prerequisites: $\mathrm{CH}-201$ or $\mathrm{CH}-320$ with a C- or above. This course will provide an understanding of the fundamentals of green chemical design that either eliminates or reduces the use or generation of hazardous substances. Three hours of lecture/lab per week.
Every 2-3 years. 3 Credits
CH-340 Advanced Inorganic Chemistry
Prerequisites: $\mathrm{CH}-120, \mathrm{CH}-121, \mathrm{CH}-201$, or $\mathrm{CH}-202$, with a C - or above. $\mathrm{CH}-301$ recommended. This course is a survey of the chemistry of the inorganic elements, focusing on the relationship between electronic structure, physical properties, and reactivity across the periodic table.
Every 2-3 years. 3 Credits

## CH-350 Medicinal Chemistry

Prerequisites: $\mathrm{CH}-201$ and $\mathrm{CH}-202$ with a C - or above. A study of how drugs work and the science and technology of modern drug discovery illustrated with case histories. Three lecture hours per week. Every 2-3 years. 3 Credits

CH-355 Molecular Pharmacology
Prerequisites: $\mathrm{CH}-201, \mathrm{CH}-202, \mathrm{BI}-141$, with a C - or above.
Prerequisites or Corequisite: $\mathrm{CH}-410$, with a C - or above.
Course examines the interdisciplinary science of pharmacology from a chemical perspective. Topics include pharmacotherapeutics, pharmacokinetics, pharmacodynamics, pharmacognosy, pharmacy and toxicology. Three lecture hours per week.
Every 2-3 years. 3 Credits

## CH-360 Introduction to Materials Science

Prerequisites: $\mathrm{CH}-120, \mathrm{CH}-121$ and either PY-221 and PY-222 or PY-241 and PY-242 with a C- or above. Physical structure of solids. Electrical, magnetics, thermal, and optical properties of solids, liquids, and soft matter. Structure-property relationships in materials.
Every year. 3 Credits

## CH-370 Introduction to Nuclear Science

Prerequisites: $\mathrm{CH}-120, \mathrm{CH}-121, \mathrm{MA}-200$, and either PY-221 and PY-222 or PY-241 and PY-242 with a C- or above.
Fundamentals of nuclear science. Topics include nuclear structure and forces, radioactive decays, nuclear reactions, and modern applications.
Every 2-3 years. 3 Credits

## CH-402 Advanced Organic Chemistry

Prerequisites: $\mathrm{CH}-202$ and $\mathrm{CH}-204$ with a C - or above. This advanced organic chemistry course will continue the study of synthetic organic reactions and mechanisms: stereochemical features including conformation and stereoelectronic effects; reaction dynamics and special reactive intermediates. It is a course built on the foundation of Organic Chemistry I \& II and is appropriate for upperlevel undergraduates. This course will also be an immersive overview of organic reactivity, the use and synthetic manipulations of functional groups, and total synthesis tactics.
Alternating and other or on demand. 3 Credits

## CH-408 Directed Study: Chemistry

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3-4 Credits

## CH-410 Biochemistry I

LASC Categories: NLL
Prerequisites: CH-201 with a C- or above.
The chemistry of proteins, nucleic acids, carbohydrates, and lipids; enzymes, biological oxidations; and correlations in intermediary metabolism. Three hours of lecture and a three-hour laboratory per week.
Every year. 4 Credits

## CH-411 Biochemistry II

Prerequisites: $\mathrm{CH}-410$ or $\mathrm{BI}-410$ with a C - or above. The generation and storage of metabolic energy; biosynthesis of macromolecular precursors, DNA, RNA, and protein; and biochemical regulation. Three hours of lecture per week.
Every 2-3 years. 3 Credits

## CH-435 Advanced Laboratory Experience

LASC Categories: LAB
Prerequisites: $\mathrm{CH}-204$ and $\mathrm{CH}-210$ and $\mathrm{CH}-303$
$\mathrm{CH}-303$ with a C - or above.
Problem based laboratory class that incorporates topics from the various disciplines within chemistry. This course requires laboratory skills learned in previous lab courses. Students will devise and execute their own experiments associated with the topics being covered. This course is intended to provide a more realistic approach to solving research type problems. With guidance from the instructors, students will bring their project to completion and present their findings.
Spring only and every 2-3 years. 2 Credits

CH-440 Organometallics for Organic Synthesis
Prerequisites: CH-201 CH-201 with a C- or above. Have you ever wondered about the elements below carbon on the periodic table that we never talk about in organic chemistry? Now is your chance to learn about the transition metals and the role they play in organic synthesis. We will learn about organometallic complexes and how they are used in modern industrial processes. Knowledge of 18electron complexes, ligand types, and organometallic mechanisms will allow us to study catalysis and its role in the manufacture of modern commodity products such as polymers, pharmaceuticals, and fine chemical precursors.
Fall only and every 2-3 years. 3 Credits

## CH-450 Computational Chemistry

Prerequisites: $\mathrm{CH}-301$ with a C - or above.
Modern theoretical methods used in studying molecular structure, bonding, and reactivity. Application of these theories to various chemical systems.
Every 2-3 years. 3 Credits

## CH-455 Special Topics in Chemistry

Exploration of frontier areas of chemistry, including chemical kinetics, quantum chemistry, polymers, spectroscopy, materials science, environmental bioinorganic and medicinal bioinorganic and medicinal chemistry. Prerequisites: 18 credits in Chemistry and consent of Department.
Every 2-3 years. 3-4 Credits

## CH-470 Instrumental Analysis

LASC Categories: NLL
Prerequisites: $\mathrm{CH}-120, \mathrm{CH}-121$, and $\mathrm{CH}-210$ or $\mathrm{CH}-301$ with a C- or above.
Advanced level survey of instrumental methods of separation and analysis including spectrophotometry, potentiometry, polarography, and chromatography. Laboratories are project-oriented. Two lecture hours and six laboratory hours per week.
Every 2-3 years. 4 Credits

## CH-475 Chemistry Seminar

LASC Categories: CAP
Prerequisites: $\mathrm{CH}-260$ and 25 credits in Chemistry. Contemporary developments in chemistry, review of technical literature in both print and electronic format, preparation and presentation of technical paper. [Prerequisite: Successful completion of 25 Chemistry credits or special permission of instructor.] Every year. 1 Credit

## CH-480 Internship: Chemistry

Project completed at an institution other than Worcester State by a student with a non-Worcester State sponsor and Worcester State liaison. Every year. 1-6 Credits

## CH-492 Advanced Chemistry Research Methods

Students develop and execute a research project in a field of chemistry under the direction of a faculty member. This may include the development of a formal research proposal in collaboration with the faculty mentor, conducting needed background literature search, data collection through appropriate lab experiments and, analysis of data and production of a research paper summarizing the findings.
Permission of instructor.
Every year. 1-6 Credits

## Program Learning Outcomes

- Describe properties of matter, explain the changes it undergoes and calculate the energy associated with these changes
- Identify appropriate equipment to perform analyses and safely execute a previously published procedure with minimal input from the instructor
- Read and communicate accurate scientific information to different audiences using a variety of media (lab reports, scientific reviews, oral presentations)
- Define green chemistry and critically assess greenness of a process
- Apply critical thinking and logical reasoning skills to chemical systems


## Chemistry

Students must earn a C- or higher in all prerequisite courses in order to register for a chemistry or ancillary course.

## Requirements for a Major in Chemistry

| Code | Title | Credits <br> Core |
| :--- | :--- | ---: |
| $(46$ <br> credits) |  |  |
| \& CH-121 | General Chemistry I <br> and General Chemistry II | 8 |
| $\mathrm{CH}-201$ | Organic Chemistry I (lecture) | 6 |
| $\& \mathrm{CH}-202$ | and Organic Chemistry II <br> (lecture) |  |
|  |  |  |


| CH-203 | Organic Chemistry | 4 |
| :--- | :--- | :---: |
|  | Laboratory I <br> and Organic Chemistry <br> Laboratory II |  |
| CH-301 | Physical Chemistry I (Lecture <br> Only) <br> and Physical Chemistry II <br> (Lecture Only) | 6 |
|  | Chemistry Literature <br> Seminar | 1 |
| CH-260 | Physical Chemistry <br> Laboratory I | 2 |


| CH-210 | Chemical Analysis: an <br> Introduction to Modern <br> Methods | 5 |
| :--- | :--- | ---: |
| CH-475 | Chemistry Seminar | 2 |

Plus a minimum of 12 credits at the 300 level 12 or above, at least one of which must be a lab course. Internships and Independent Study may contribute no more than 3 credits toward this requirement.
Ancillary Courses $\begin{array}{r}\text { (16 } \\ \text { credits) }\end{array}$

| MA-200 | Calculus I <br> \& MA Calculus II | 8 |
| :--- | :--- | ---: |
| PY-241 | Physics I (Mechanics) <br> and Physics II (Electricity, | 8 |
| \& PY-242 | Magnetism and Optics ) |  |

## Total Credits

To complete a chemistry degree certified by the American Chemical Society, students should complete all of the requirements for the Chemistry Major, plus $\mathrm{CH}-340, \mathrm{CH}-410, \mathrm{CH}-470, \mathrm{CH}-492$, and one of the following: $\mathrm{CH}-335, \mathrm{CH}-350, \mathrm{CH}-355, \mathrm{CH}-411$, $\mathrm{CH}-435, \mathrm{CH}-450$, or $\mathrm{CH}-295$. By completing 6 credits of $\mathrm{CH}-492$, students will also be eligible for Chemistry Honors.

## Sample Timeline for Completion of Degree

| Year One |  | Credits |
| :--- | :--- | ---: |
| Semester One |  | 3 |
| LASC | First-Year Seminar (p. 50) | 3 |
| EN-101 | College Writing I | 4 |
| CH-120 | General Chemistry I | 4 |
| MA-200 | Calculus I (LASC QR or Math <br> according to accuplacer |  |
|  | score) ${ }^{1}$ |  |

## Semester Two

| EN-102 | College Writing II | 3 |
| :--- | :--- | ---: |
| LASC | U.S. Constitution | 3 |
| CH-121 | General Chemistry II | 4 |
| MA-201 | Calculus II (LASC QR or Math <br> according to accuplacer <br> score) | 4 |
|  | Distribution Elective (p. 46) | 3 |
| LASC | Credits | $\mathbf{1 7}$ |

Year Two

## Semester Three

| CH-201 | Organic Chemistry I (lecture) | 3 |
| :--- | :--- | ---: |
| CH-203 | Organic Chemistry <br> Laboratory I | 2 |
| PY-241 | Physics I (Mechanics) (LASC <br> NSP, QLAC) | 4 |
| CH-210 |  |  |
| or MA-200 | Chemical Analysis: an <br> Introduction to Modern <br> Methods (LASC WAC) |  |
|  | or Calculus I | $4-5$ |
| LASC | Distribution Elective (p. 46) | 3 |
|  | Credits | $\mathbf{1 6 - 1 7}$ |

## Semester Four

| CH-202 | Organic Chemistry II (lecture) | 3 |
| :--- | :--- | ---: |
| CH-204 | Organic Chemistry <br> Laboratory II | 2 |
| CH-260 | Chemistry Literature <br> Seminar | 1 |
| PY-242 | Physics II ( Electricity, <br> Magnetism and Optics ) <br> (LASC NSP) | 1,2 |

## Year Three

Semester Five

| CH-301 | Physical Chemistry I (Lecture <br> Only) | 3 |
| :--- | :--- | ---: |
| CH-303 | Physical Chemistry <br> Laboratory I | 2 |
| LASC | Distribution Elective or <br> Chemical Analysis (if not <br> taken previously) |  |
|  | Free Elective | 5 |
| SELECT | Free Elective | 3 |
| SELECT | Credits | 3 |
|  |  | $\mathbf{1 6}$ |


| Semester Six |  |  |
| :---: | :---: | :---: |
| CH-302 | Physical Chemistry II (Lecture Only) | 3 |
| CH3XX/4XX | Chemistry Upper Level Elective | 3-4 |
| LASC | Distribution Elective (p. 46) | 3 |
| LASC | Distribution Elective (p. 46) | 3 |
| SELECT | Free Elective | 3 |
|  | Credits | 15-16 |
| Year Four |  |  |
| Semester Seven |  |  |
| CH-475 | Chemistry Seminar ${ }^{5}$ | 2 |
| CH3XX/4XX | Chemistry Upper Level Elective | 3-4 |
| LASC | Distribution Elective (p. 46) | 3 |
| SELECT | Free Elective | 3 |
| SELECT | Free Elective | 3 |
|  | Credits | 14-15 |
| Semester Eight |  |  |
| CH3XX/4XX | Chemistry Upper Level Elective | 3-4 |
| SELECT | Free Elective (Chemistry or other) | 3-4 |
| SELECT | Free Elective (Chemistry or other) | 3-4 |
| SELECT | Free Elective | 3 |
|  | Credits | 12-15 |
|  | Total Credits | 123-130 |

${ }^{1}$ It is recommended that students take Calculus (MA-200/MA-201) in their first-year and calculusbased physics (PY-241/PY-242) in their second year. This gives the best preparation for physical chemistry in the third year. EN-101 satisfies LASC writing and MA-200/MA-201 satisfies QR.
${ }^{2}$ PY-241/PY-242 each satisifes NSP. CH-210 satisfies WAC.
${ }^{3}$ If not taken previously.
${ }^{4} 3+3$ Pre-Pharmacy students must take Chemistry Seminar in the Fall semester of Junior year. Others take in Senior year.
${ }^{5}$ Students who have not taken Chemistry Seminar (a Capstone Experience) must take it in their senior year Fall semester.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students
with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Chemistry Honors Program

The Chemistry Honors Program is an upper-level program designed to challenge students majoring in chemistry to excel in their course work, extend their program beyond the basic requirements of the major, and complete an independent research project including a written thesis. The Chemistry Honors Program rewards and recognizes students for so doing. Students are required to have a 3.5 GPA in chemistry and ancillary courses and a 3.2 GPA overall.

## Requirements for the Chemistry Honors Program

Students would need to complete the following courses in chemistry.

| Code | Title | Credits |
| :---: | :---: | :---: |
| $\begin{aligned} & \mathrm{CH}-120 \\ & \& \mathrm{CH}-121 \end{aligned}$ | General Chemistry I and General Chemistry II | 8 |
| $\begin{aligned} & \text { CH-201 } \\ & \& \text { CH-202 } \end{aligned}$ | Organic Chemistry I (lecture) and Organic Chemistry II (lecture) | 6 |
| $\begin{aligned} & \mathrm{CH}-203 \\ & \& \mathrm{CH}-204 \end{aligned}$ | Organic Chemistry Laboratory I and Organic Chemistry Laboratory II | 4 |
| CH-210 | Chemical Analysis: an Introduction to Modern Methods | 5 |
| $\begin{aligned} & \mathrm{CH}-301 \\ & \& \mathrm{CH}-302 \end{aligned}$ | Physical Chemistry I (Lecture Only) and Physical Chemistry II (Lecture Only) | 6 |
| CH-260 | Chemistry Literature Seminar | 1 |
| CH-303 | Physical Chemistry Laboratory I | 2 |
| CH-475 | Chemistry Seminar | 2 |
| 300- and 400-level electives |  |  |
| The follow of the requ electives: | ourses must be taken as part redits of 300 and 400 -level | 12 |

CH-340
Advanced Inorganic Chemistry

| CH-410 | Biochemistry I |
| :--- | :--- |
| Research | Advanced Chemistry <br> Research Methods |
| CH-492  <br> Total Credits  <br> In addition, students would be expected to  <br> the ancillary requirements for the chemistry  <br> calculus and physics.  |  |
| Major in Chemistry and |  |
| prerequisites for the |  |
| Accelerated Pharmacy |  |
| Program |  |

(Please see program description (p. 76) in this catalog.)

Requirements for a Major in Chemistry and to meet the prerequisites for the Accelerated Pharmacy Program with Massachusetts College of Pharmacy and Health Sciences

| Code | Title | Credits |
| :---: | :---: | :---: |
| Chemistry Major Core |  | (34 |
|  |  | credits) |
| $\begin{aligned} & \mathrm{CH}-120 \\ & \& \mathrm{CH}-121 \end{aligned}$ | General Chemistry I and General Chemistry II | 8 |
| $\begin{aligned} & \mathrm{CH}-201 \\ & \& \mathrm{CH}-202 \end{aligned}$ | Organic Chemistry I (lecture) and Organic Chemistry II (lecture) | 6 |
| $\begin{aligned} & \text { CH-203 } \\ & \& \mathrm{CH}-204 \end{aligned}$ | Organic Chemistry <br> Laboratory I and Organic Chemistry Laboratory II | 4 |
| $\begin{aligned} & \text { CH-301 } \\ & \& \text { CH-302 } \end{aligned}$ | Physical Chemistry I (Lecture Only) and Physical Chemistry II (Lecture Only) | 6 |
| CH-260 | Chemistry Literature Seminar | 1 |
| CH-303 | Physical Chemistry Laboratory I | 2 |
| CH-210 | Chemical Analysis: an Introduction to Modern Methods | 5 |
| CH-475 | Chemistry Seminar | 2 |


| Prerequisites for the Accelerated Pharmacy <br> Program | $(28$ <br> credits) |  |
| :--- | :--- | ---: |
| BI-140 | Introduction to Organismal <br> Biology | 4 |
| BI-141 | Intro to Cellular and <br> Molecular Biology | 4 |
| PY-241 | Physics I (Mechanics) | 4 |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| BI-204 | Microbiology | 4 |
| PY-242 | Physics II ( Electricity, | 4 |

Total Credits

Students must earn a C- or higher in all prerequisite courses in order to register for a chemistry or ancillary course.

## Major in Chemistry, Concentration in Medicinal Chemistry

In addition to courses required for the Chemistry Major, 12 additional credits are required for the Medicinal Chemistry Concentration.


## Minor in Chemistry

The chemistry minor provides students with a solid foundation in the discipline of chemistry with a strong emphasis on the development of laboratory skills. The minor will allow students to understand chemistry as a central science and relate it to everyday life and the environment. Students will develop the skills to think critically and quantitatively evaluate data using the scientific method. Any student who is interested in applying the scientific methodology to solve problems should pursue this minor.

## Requirements for a Minor in Chemistry

| Code | Title | Credits |
| :--- | :--- | ---: |
| CH-120 | General Chemistry I | 8 |
| $\&$ CH-121 | and General Chemistry II |  |
| Thirteen (13) additional credits in 200-level or | 13 |  |
| higher chemistry courses |  |  |
| The courses at the 200-level or higher must |  |  |
| include: a lab at 200-level or higher and at least 3 |  |  |
| credits at 300-level or higher. |  |  |

Total Credits

## Minor in Chemistry for the Medical Professions

| Code | Title | Credits |
| :--- | :--- | ---: |
| CH-120 | General Chemistry I | 4 |
| CH-121 | General Chemistry II | 4 |
| CH-201 | Organic Chemistry I (lecture) | 3 |
| CH-203 | Organic Chemistry <br> Laboratory I | 2 |
| CH-202 | Organic Chemistry II (lecture) | 3 |
| CH-204 | Organic Chemistry <br> Laboratory II | 2 |
| CH-410 | Biochemistry I | 4 |
| BI-211 | Pre-Medical Seminar. <br> Preparing for a Career in <br> Medicine | 1 |
|  |  |  |
|  |  |  |

These courses satisfy the requirements for the minor. However, to apply to medical, dental, or veterinary school, additional courses must be completed, including BI 140, BI 141, PY 221 or PY 241, PY 222 or PY 242, and MA 190. MA 150, MA 200, and PS 101 are strongly recommended. Specific courses should be planned with the guidance of a member of the Pre-Medical Advisory Committee.

## Total Credits

## Minor in Pharmaceutical Science

The Pharmaceutical Science minor includes advanced coursework covering aspects of drug design and synthesis, mechanisms of drug action, pharmacology and toxicology. The minor will allow students to gain critical skills in these areas and will allow students to pursue diverse positions in industrial, academic, or other research environments within the areas of drug discovery, development, and commercialization. This minor is particularly suited for Biotechnology majors who may want to explore opportunities in advanced drug discovery.

## Minor in Pharmaceutical Science

| Code | Title | Credits |
| :--- | :--- | ---: |
| Required Courses |  |  |
| $\mathrm{CH}-202$ | Organic Chemistry II (lecture) | 3 |
| $\mathrm{CH}-204$ | Organic Chemistry <br> Laboratory II | 2 |
| $\mathrm{CH}-350$ | Medicinal Chemistry | 3 |
| $\mathrm{CH}-355$ | Molecular Pharmacology | 3 |


| Electives - 7 credits from: |  |
| :--- | :--- |
| $\mathrm{CH}-330$ | Environmental Toxicology |
| $\mathrm{CH}-402$ | Advanced Organic Chemistry |
| $\mathrm{CH}-411$ | Biochemistry II |
| $\mathrm{CH}-435$ | Advanced Laboratory <br> Experience |
| $\mathrm{CH}-440$ | Organometallics for Organic <br> Synthesis |
| $\mathrm{CH}-470$ | Instrumental Analysis |
| $\mathrm{CH}-480$ | Internship: Chemistry |
| or $\mathrm{CH}-492$ | Advanced Chemistry Research <br> Methods |

Total Credits
18

## Minor in STEM

The STEM minor provides students with a broad foundation of scientific knowledge. The minor reinforces the scientific method across disciplines, and will allow students to gain increased scientific literacy across the disciplines. Students will also learn to communicate science to a diverse audience. Any non-science major with an interest in science and its applications to real world problems should pursue this major.

| Code | Title | Credits |
| :--- | :--- | ---: |
| Requirements |  | 18 <br> credits) |
| Choose 5 courses including one lab science. No |  |  |
| more than two from Chemistry, Biology, Computer |  |  |
| Science, Physics or DEEP. |  |  |$\quad$| Chemistry |  |
| :--- | :--- |
| CH-106 | Paper Or Plastics? |
| $\mathrm{CH}-112$ | Survey of Chemistry |
| $\mathrm{CH}-120$ | General Chemistry I |

Biology (BI-104 must be taken with $\mathrm{BI}-103$ to count in the minor.)

| $\mathrm{BI}-101$ | Concepts of Biology |
| :--- | :--- |
| $\mathrm{BI}-103$ | The Human Animal <br> $\mathrm{BI}-104$ |
| $\mathrm{BI}-111$ | The Human Animal |
| $\mathrm{BI}-112$ | Social Biology |
| $\mathrm{BI}-114$ | Plants and Human Affairs |
| $\mathrm{BI}-116$ | Animal Biology |
| $\mathrm{BI}-117$ | Humans and the |
| $\mathrm{BI}-118$ | Environment |
| $\mathrm{BI}-119$ | Dinosaurs |


| BI-120 | Darwinian Revolution | GS-250 | Hydrology |  |
| :---: | :---: | :---: | :---: | :---: |
| BI-125 | Women in Science | GS-260 | Introduction to Soil Science |  |
| BI-130 | Field Biology | GS-270 | The Sedimentary Record |  |
| BI-140 | Introduction to Organismal | STEM Minor Seminar |  |  |
|  | Biology | CH-312 | Tackling Global Issues using | 3 |
| BI-141 | Intro to Cellular and Molecular Biology |  | STEM |  |
|  |  | Total Credits |  | 18 |
| BI-205 | Research Techniques and Experimental Design |  |  |  |
| BI-266 | Biology of Aging |  |  |  |
| Computer Science |  |  |  |  |
| CS-101 | Basics of Computer Science |  |  |  |
| CS-131 | Data Visualization and Statistical Analysis |  |  |  |
| CS-135 | Programming for Non-CS Majors |  |  |  |
| CS-140 | Introduction to Programming |  |  |  |
| CS-141 | Data Cleaning and Preprocessing |  |  |  |
| CS-155 | Computer Networking and Security |  |  |  |
| CS-234 | Data Mining for Non-Cs Majors |  |  |  |
| CS-265 | Database Applications |  |  |  |
| CS-282 | Unix Systems Programming |  |  |  |
| CS-286 | Database Design and Applications |  |  |  |
| Physics |  |  |  |  |
| PY-101 | Introduction to Astronomy |  |  |  |
| PY-105 | Concepts in Physics I |  |  |  |
| PY-114 | Physics of Waves |  |  |  |
| PY-221 | General Physics I |  |  |  |
| PY-241 | Physics I (Mechanics) |  |  |  |
| DEEP |  |  |  |  |
| EV-120 | Integrated Environmental Science for Educators |  |  |  |
| EV-130 | Environmental Problems and Solutions |  |  |  |
| EV-150 | Environmental Science |  |  |  |
| $\begin{aligned} & \text { GS-101 } \\ & \quad \text { or GS-110 } \end{aligned}$ | Physical Geography <br> Meteorology |  |  |  |
| GS-140 | Physical Geology |  |  |  |
| GS-165 | Geographic Information Systems I |  |  |  |
| GS-210 | Geomorphology |  |  |  |
| GS-225 | Oceanography |  |  |  |
| GS-230 | Biogeography |  |  |  |
| GS-235 | Contemporary Climate Change |  |  |  |

## Communication Sciences and Disorders

## Department of Communication Sciences and Disorders

Mission: The Department of Communication Sciences and Disorders at WSU serves to meet the needs of its students by providing a rigorous, scientifically sound, culturally responsive, evidencebased education with experiential learning opportunities. In doing so, students receive the opportunity to gain the knowledge and skill necessary for personal, professional, and intellectual achievement within their community.

Vision: The Communication Sciences and Disorders Department will be a respected partner in the community by fostering academic, research, and clinical excellence, as well as engaged citizenship. Students are prepared to be valued members and leaders of their communities.

- 4+1 Masters in Communication Sciences and Disorders (p. 221)
- Communication Sciences and Disorders Major (p. 216)
- Communication Sciences and Disorders Honors Program (p. 218)
- Communication Sciences and Disorders Minor (p. 218)
- Interdisciplinary Minor in Disabilities Studies (p. 219)
- Normal and Disordered Speech, Language and Hearing Minor (p. 220)


## Faculty

Suzanne Crawford-Stacy, Clinical Instructor (2013), B.S., Worcester State University; M.S., University of Vermont

Kristina A. Curro, Department Chair, Associate Professor (2015), B.A., University of Rochester; M.A., University of Massachusetts-Amherst; Ph.D., University of Massachusetts-Amherst

Keith N. Darrow, Professor (2010), B.S., University of Massachusetts; M.S., Brooklyn College; Ph.D., Massachusetts Institute of Technology and Harvard Medical School

Colleen Karow, Associate Professor (2017), B.A., M.A., Western Illinois University; Ph.D., University of Texas at Austin

Jaime L. Marino, Clinical Instructor (2021), B.A., Simmons College; M.S., Worcester State University

Kenneth S. Melnick, Associate Professor (2004), B.A., University of Michigan; M.A., University of Cincinnati; Ph.D., Vanderbilt University

Kym Meyer, Assistant Professor (2022), B.A., Hofstra University; M.S., Gallaudet University; Ph.D., University of Massachusetts-Amherst

Samantha L. Scripture, Assistant Professor
(2022), B.A., Elms College; M.A., University of

Massachusetts-Amherst; Ph.D., University of
Massachusetts-Amherst

## Courses

CD-100 Introduction to Human Communication and its Disorders
LASC Categories: HBS, ICW
Nature and causes of organic and functional speech/ language and hearing problems, general awareness of diagnostic and therapeutic techniques. Fall and Spring and every year. 3 Credits

## CD-103 Language Science

LASC Categories: TLC
Introduction to basic linguistic knowledge including theoretical areas of pragmatics, semantics, syntax, morphology and phonology in a multicultural perspective.
Fall and Spring and every year. 3 Credits

## CD-105 Phonetics

Introduction to the study of English speech sounds, their articulation and acoustic characteristics, and speech transcription using the International Phonetic Alphabet.
Fall and Spring and every year. 3 Credits
CD-110 Anatomy and Physiology of Speech And Hearing
LASC Categories: NSP, TLC
Normal anatomy and physiology of the speech and hearing mechanisms with emphasis on respiration, phonation, resonance, articulation, and audition. Fall and Spring and every year. 3 Credits

## CD-115 Normal Development of Speech and Language

An in-depth coverage of the normal acquisition and development of speech and language, including phonology, morphology, syntax, and semantics. Fall and Spring and every year. 3 Credits

CD-120 An Introduction to American Sign Language
An introduction to American Sign Language; vocabulary, grammar and colloquialism as used in the Deaf community. Deaf culture, history, and social justice themes will be introduced through readings and movies.
Fall and Spring and every year. 3 Credits

## CD-193 Special Topics in Communication Sciences And Disorders for First-Year Students <br> LASC Categories: FYS <br> Introductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar. <br> Every year. 3 Credits

## CD-201 Hearing Science

LASC Categories: QAC
Prerequisites: CD-110. Math placement code of 3 needed.
Basic information to understand concepts in audiology. physical concepts, acoustics, psychoacoustics, measurement of sound and speech perception theories.
Fall and Spring and every year. 3 Credits

## CD-202 Speech Science

Prerequisites: CD-110 and CD-205 with C or above and Math placement code of 3 needed.
Basic information to understand concepts in speech; physical and psychophysical bases, linguistic and psycholinguistic aspects and clinical instruments.
Fall and Spring and every year. 3 Credits

## CD-203 Language Science

LASC Categories: TLC
Basic linguistic knowledge including theoretical areas of pragmatics, semantics, syntax, morphology and phonology in a multicultural perspective.
Fall and Spring and every year. 3 Credits

## CD-207 Intermediate Sign Language

Prerequisites: CD-120 with a grade of $C$ or above.
Students gain more facility in sign usage. Receptive and expressive vocabularies are expanded and fluency increased.
Spring only and every year. 3 Credits

CD-230 Neuroscience for Communication Sciences and Disorders
LASC Categories: NSP
Prerequisites: CD-110
Structure and function of the nervous system and its relation to normal and disordered speech, language, and hearing.
Fall and Spring and every year. 3 Credits

## CD-301 Directed Observations

LASC Categories: WAC
Prerequisites: EN-102
Prerequisites or Corequisite: CD-305 CD-310 CD-320
Beginning aspects of clinical issues including objectives, rapport and timing. Therapy/diagnostic sessions will be viewed and highlighted by the instructor.
Spring only and every year. 2 Credits
CD-305 Introduction to Audiology
Prerequisites: CD-201 with a minimum grade of $C$. Introduction to audiometric testing techniques and interpretation as related to ear pathologies.
Spring only and every year. 3 Credits

## CD-310 Language Disorders

Prerequisites: CD-100 CD-103 CD-110 CD-115 CD-205
CD-202 with a minimum grade of $C$.
Examiniation of the processes interfering with normal language acquisition and the disorders which disturb established language skills in children and adults.
Spring only and every year. 3 Credits

## CD-320 Speech Disorders

Prerequisites: CD-100 CD-110 CD-115 CD-201 CD-202
CD-205 with a minimum grade of $C$.
Study of the theoretical bases of articulation, voice and fluency disorders. Etiology, characteristics, evaluation and rehabilitation of these disorders.
Spring only and every year. 3 Credits

## CD-400 Introduction to Aural Rehabilitation

LASC Categories: DAC
Prerequisites: CD-201 CD-202 CD-305 CD-310 CD-320 with a minimum grade of $C$.
Study of the theoretical bases of the characteristics, evalutation and treatment of individuals with hearing impairment across the life span.
Fall only and every year. 3 Credits

## CD-401 Advanced Directed Observations <br> LASC Categories: WAC

Prerequisites: CD-301 with a minimum grade of C and EN-102/EN-250
Advanced aspects of clinical issues including procedures and material selection. Therapy/ diagnostic sessions will be viewed and highlighted by the instructor.
Fall only and every year. 2 Credits

## CD-408 Directed Study: Communication Sciences and Disorders

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## CD-410 Professional Guidelines and Skills LASC Categories: CAP

Prerequisites: CD-305 CD-310 CD-320 with a minimum grade of $C$. Exploration of topics related to career preparation, personal wellness and professional practice in communication sciences \& disorders and allied fields.
Fall only and every year. 3 Credits

## CD-475 Selected Topics in Communication Sciences and Disorders

Prerequisites: CD-310 CD-320 with a minimum grade of $C$.
Selection of topics of mutual interest to the student and faculty. Timely topics and issues will be covered. Spring only and every year. 3 Credits

## CD-490 Independent Study in Communication Sciences and Disorders

The student will pursue an area of special interest in speech pathology or audiology through research or field experience, under faculty supervision. Junior and senior majors only.
Fall and Spring and every year. 1-6 Credits

## Program Goals

- Students will demonstrate knowledge and skills of the science underlying human communication, including anatomy and physiology, speech science, phonetics, language science, hearing science, and neuroscience.
- Students will demonstrate introductory knowledge and application regarding etiology and characteristics of communication disorders.
- Students will demonstrate introductory knowledge and application of assessment, prevention, and intervention of communication disorders.
- Students will demonstrate pre-professional written and oral language skills pertaining to communication sciences and disorders.
- Students will develop critical thinking skills pertaining to their understanding of the normal and disordered processes of communication.


## Program Learning Outcomes

- Students will demonstrate growth in understanding and application of knowledge associated with anatomy and physiology of the speech and hearing mechanisms and processes.
- Students will demonstrate growth in understanding and application of knowledge and skills associated with phonetics.
- Students will demonstrate growth in understanding and application of knowledge associated with speech science.
- Students will demonstrate growth in understanding and application of knowledge associated with language science.
- Students will demonstrate growth in understanding and application of knowledge associated with hearing science.
- Students will demonstrate growth in understanding and application of knowledge associated with neuroscience.
- Students will demonstrate growth in understanding and applying knowledge regarding etiology and characteristics of communication disorders
- Students will demonstrate growth in understanding and applying knowledge of assessment, prevention, and intervention of communication disorders
- Students will demonstrate growth in preprofessional written language skills pertaining to communication sciences and disorders
- Students will demonstrate growth in preprofessional oral language skills pertaining to communication sciences and disorders
- Students will apply critical thinking skills pertaining to communication sciences and disorders


## Communication Sciences and Disorders Major

The undergraduate program immerses students in an academically rigorous and challenging course of study. Students learn about the normal development and processes of speech, language, and hearing, as well as its disorders across the lifespan. In addition to the courses offered within the Department of Communication Sciences and Disorders, students are required to take courses in biological sciences, physical sciences, behavioral sciences, and mathematics.

The undergraduate curriculum allows the opportunity for students who may be interested to study abroad or be part of the National Student Exchange. The second semester of year one or the first semester of year two or three are good choices for these pursuits. Students must plan their semester away with their department advisor at least one year in advance to assure that they complete their major requirements in a timely manner. The curriculum also allows students to declare a minor in an area of interest.

Overall, the Communication Sciences and Disorders major provides students with knowledge and skills that enable them to do well in either graduate school or in the work place. Students will have an excellent liberal arts education with a strong basis of normal and disordered communication. Students acquire interpersonal, critical thinking, and problem-solving skills, as well as scientific reasoning, strong writing ability, and strong presentation skills.

The Communication Sciences and Disorders Department's Program Goals ensure that students will be able to demonstrate knowledge and skills of the science underlying human communication, including anatomy and physiology, speech science, phonetics, language science, and hearing science. Students will also be able to demonstrate knowledge of the etiology, characteristics, assessment, prevention, and intervention of communication disorders. In addition, students will demonstrate
written language, oral language, and critical thinking skills pertaining to normal and disordered communication.

## Requirements for Major in Communication Sciences and Disorders

| Code | Title | Credits |
| :---: | :---: | :---: |
| CD-100 | Introduction to Human Communication and its Disorders | 3 |
| CD-103 | Language Science | 3 |
| CD-110 | Anatomy and Physiology of Speech And Hearing | 3 |
| CD-115 | Normal Development of Speech and Language | 3 |
| CD-201 | Hearing Science | 3 |
| CD-202 | Speech Science | 3 |
| CD-205 | Phonetics | 3 |
| CD-230 | Neuroscience for Communication Sciences and Disorders | 3 |
| CD-301 | Directed Observations | 2 |
| CD-305 | Introduction to Audiology | 3 |
| CD-310 | Language Disorders | 3 |
| CD-320 | Speech Disorders | 3 |
| CD-400 | Introduction to Aural Rehabilitation | 3 |
| CD-401 | Advanced Directed Observations | 2 |
| CD-410 | Professional Guidelines and Skills | 3 |
| CD-475 | Selected Topics in Communication Sciences and Disorders | 3 |

Total Credits
46

Students must obtain a minimum grade of a C in any prerequisite major course. In addition, a major course may be repeated only once to obtain a passing grade.

Out of department requirements include the following courses: one biological science (human or animal based), one physical science (introductory physics or chemistry course), MA-180, one statistics, and two behavioral sciences of which one must be in developmental psychology. These requirements cannot be taken pass/fail. Advisors
in the Department of Communication Sciences and Disorders will help students choose appropriate courses in these areas.

## Department of Communication Sciences and Disorders Sample Timeline for Completion of Degree

| Year One |  |  |
| :---: | :---: | :---: |
| Semester One |  | Credits |
| LASC | First-Year Seminar LASC FYS | 3 |
| EN-101 | College Writing I (LASC WRI) | 3 |
| CD-100 | Introduction to Human Communication and its Disorders | 3 |
| MA-180 | Introduction to Functions $(\text { LASC QR })^{1}$ | 3 |
| Biological Science (LASC NSP \& Lab) |  |  |
| Select one of the following |  | 4 |
| $\begin{aligned} & \mathrm{BI}-103 \\ & \& \mathrm{BI}-104 \end{aligned}$ | The Human Animal and The Human Animal Laboratory |  |
| BI-101 | Concepts of Biology |  |
|  | Credits | 16 |


| Semester Two |  | 3 |
| :--- | :--- | ---: |
| EN-102 | College Writing II (LASC <br> WRII) | 3 |
| CD-103 | Language Science | 3 |
| CD-110 | Anatomy and Physiology of <br> Speech And Hearing | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |


| Statistics |  |  |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { MA-150 } \\ & \text { or PS-275 } \end{aligned}$ | Statistics I (LASC QR) ${ }^{1}$ <br> or Psychological Statistics | 3 |
|  | Credits | 15 |


| Year Two |  |  |
| :--- | :--- | :--- |
| Semester Three |  | 3 |
| CD-201 | Hearing Science | 3 |
| CD-205 | Phonetics | 3 |
| LASC | LASC Elective (GP) (p. 51) |  |
| LASC | LASC Elective (CA) (p. 48) |  |
| PS-101 | General Psychology (LASC | 3 |
|  | HBS) | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Semester Four

CD-115
Normal Development of 3

| CD-202 | Speech Science | 3 |
| :--- | :--- | :--- |
| PS-210 | Developmental Psychology | 3 |

Physical Science
Select one of the following: (LASC NSP) ${ }^{3} 4$

| PY-105 | Concepts in Physics I |  |
| :---: | :--- | ---: |
| PY-114 | Physics of Waves |  |
| CH-112 | Survey of Chemistry |  |
| LASC | LASC Elective (TLC) (p. 61) ${ }^{2}$ | 3 |
|  | Credits | $\mathbf{1 6}$ |

Year Three
Semester Five

|  | Neuroscience for <br> Communication Sciences <br> and Disorders | 3 |
| :--- | :--- | ---: |
|  | LASC Elective (NSP) $(\text { p. 58) })^{2}$ | 3 |
| LASC | LASC Elective (ICW) $\left(\right.$ p. 55) ${ }^{2}$ | 3 |
| LASC | LASC Elective (CON) $\left(\right.$ p. 47) ${ }^{2}$ | 3 |
| LASC | General Elective | 3 |
| SELECT | Credits | $\mathbf{1 5}$ |


| Semester Six |  |
| :--- | :--- |
| CD-301 | Directed Observations ${ }^{6}$ |


| CD-310 | Language Disorders $^{6}$ | 3 |
| :--- | :--- | ---: |
| CD-320 | Speech Disorders $^{6}$ | 3 |
| CD-305 | Introduction to Audiology ${ }^{6}$ | 3 |
| LASC | Distribution Elective (p. 46) | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 7}$ |

Year Four
Semester Seven
CD-401 Advanced Directed Observations

| CD-400 | Introduction to Aural <br> Rehabilitation | 3 |
| :--- | :--- | ---: |
| CD-410 | Professional Guidelines and | 3 |
| SELECT | Skills |  |
| SELECT | General Elective | 3 |
|  | General Elective | 3 |
|  | Credits | $\mathbf{1 4}$ |

Semester Eight

| CD-475 | Selected Topics in <br> Communication Sciences <br> and Disorders | 3 |
| :--- | :--- | :--- |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |


| SELECT | General Elective | 3 |
| :--- | :--- | ---: |
|  | Credits | 15 |
|  | Total Credits | $\mathbf{1 2 3}$ |

${ }^{1}$ MA-180 requires a math placement code of 5 or higher. MA-150 requires and a math placement code of 4 or higher. PS- 275 requires a math placement code of 3 or higher.
${ }^{2}$ LASC courses indicated with ${ }^{2}$ are suggestions and serve as a reminder that LASC Distribution Electives must be taken to satisfy the LASC requirements.
${ }^{3}$ See advisor for a full list of approved courses.
${ }^{4}$ CD-201 requires a math placement code of 3 or higher.
${ }^{5}$ CD-202 requires a math placement code of 3 or higher.
${ }^{6}$ CD-301, CD-305, CD-310 and CD-320 are corequisite courses.

## Note:

1. Most major courses have prerequisites that must be completed before enrolling into the subsequent course.
2. Once major and LASC requirements are satisfied, students may elect any courses of interest to fulfill a minimum of 120 credits for graduation.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Communication Sciences and Disorders Honors Program

The CSD Honors Program is intended for outstanding students within the CSD major. Students completing the requirements will graduate with departmental honors. Applicants must submit a letter of application to the CSD Undergraduate Committee, a research proposal, and a letter of support from a faculty sponsor. Applications are due November 1st for Spring semester and April 1st for Fall semester.

## Requirements for the Communication Sciences and Disorders Honors Program

To be part of the program, CSD students must have:

- A minimum GPA of 3.5
- No grade less that a B in all CSD courses and non-CSD required courses
- Completed a total of 60 credits
- Completed the following prior to application:

| Code | Title | Credits |
| :--- | :--- | ---: |
| CD-110 | Anatomy and Physiology of <br> Speech And Hearing | 3 |
| CD-115 | Normal Development of <br> Speech and Language | 3 |
| CD-201 | Hearing Science | 3 |
| CD-202 | Speech Science | 3 |
| CD-205 | Phonetics | 3 |
| CD-230 | Neuroscience for <br> Communication Sciences <br> and Disorders | 3 |

Once accepted into the CSD Honors Program, students will:

- Complete a research project in collaboration with a CSD faculty mentor
- Present the project in at least one venue

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Communication Sciences and Disorders Minor

The Communication Sciences and Disorders Minor was designed for those students who may be interested in applying to a Graduate Program in Speech-Language Pathology or Audiology. Note that
some courses in this minor have prerequisites. See a CSD advisor for assistance with course selection and graduate program requirements.

21 credits within the department.
The Communication Sciences and Disorders (CSD) Minor was designed for students who may be interested in applying to a Graduate Program in Speech-Language Pathology or Audiology. Note that some courses in this minor have prerequisites. See a CSD advisor for assistance with course selection and graduate program requirements.

## Requirements for a Communication Sciences and Disorders Minor

21 credits within the department.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Required Courses |  | (21 |
|  |  | credits) |
| CD-110 | Anatomy and Physiology of Speech And Hearing | 3 |
| CD-115 | Normal Development of Speech and Language | 3 |
| CD-201 | Hearing Science | 3 |
| CD-202 | Speech Science | 3 |
| CD-205 | Phonetics | 3 |
| CD-230 | Neuroscience for Communication Sciences and Disorders | 3 |
| CD-305 | Introduction to Audiology | 3 |
| Total Credits |  | 21 |

The minimum grade requirement for a course to count toward the minor is a "C".

## Interdisciplinary Minor in Disabilities Studies

This interdisciplinary minor will explore various topics that focus on disabilities and provide the students with an understanding of disability issues in today's society. This minor provides the students with a unique understanding as it draws from a variety of disciplines across the university. It allows students to gain knowledge and skills from numerous perspectives including: social sciences, humanities, natural sciences and education.

Students will take 6 courses for 18 credits. At least one course must be at the 200/300 level.

## Required Courses

| Code | Title | Credits |
| :--- | :--- | ---: |
| CD-100 | Introduction to Human <br> Communication and its | 3 |
|  | Disorders |  |
| CS-124 | Health Informatics | 3 |
| PS-101 | General Psychology | 3 |

## One Ethics Course Required

| Code | Title | Credits |
| :--- | :--- | ---: |
| HC-228 | Health Ethics | 3 |
| PH-131 | Medical Ethics | 3 |

Select at least two of the courses

| Code | Title | Credits |
| :--- | :--- | ---: |
| BI-112 | Diseases and Mankind | 3 |
| CD-120 | An Introduction to American <br> Sign Language | 3 |
| ED-206 | Development and Learning <br> of Typical and Atypical <br> Children Birth to Age 8 | 3 |
| ED-285 | Understanding and <br> Supporting Children And <br> Youth With Disabilities | 3 |
| PS-222 | Introduction to Health <br> Psychology | 3 |
| PS-240 | Introduction to Abnormal <br> Psychology | 3 |
| PS-310 | Development of Exceptional <br> Children/Youth | 3 |
| SO-215 | Medical Sociology | 3 |
| SO-255 | Sociology of Disability | 3 |

## NOTES:

Students must take the four required courses (CD 100, CS 124, PS 101 and HC 228 or PH 131) for 12 credits, plus two from the approved list ( 6 credits).

CD majors must take the three required courses (CS 124, PS 101 and HC 228 or PH 131 -- CD 100 is required of the major), plus three from the approved list ( 9 credits).

PBH majors must take the four required courses (CD 100, CS 124, PS 101, and PH 131 - HC 228 is required of the major), plus two from the approved list (6 credits).

PS majors must take the three required courses (CD 100, CS 124 and HC 228 or PH 131 -- PS 101 is required for the major), plus three from the approved list (9 credits).

## Normal and Disordered Speech, Language and Hearing Minor

Students will obtain basic knowledge in human communication sciences with an emphasis on understanding either speech and language disorders or hearing disorders. See a CSD advisor for assistance with course selection.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Required Courses |  | 15 |
|  |  | credits) |
| CD-100 | Introduction to Human Communication and its Disorders | 3 |
| CD-110 | Anatomy and Physiology of Speech And Hearing | 3 |
| CD-115 | Normal Development of Speech and Language | 3 |
| CD-230 | Neuroscience for Communication Sciences and Disorders | 3 |
| $\begin{aligned} & \text { CD-103 } \\ & \quad \text { or CD-201 } \end{aligned}$ | Language Science Hearing Science | 3 |
| Elective Courses |  | $\begin{array}{r} (3 \\ \text { credits) } \end{array}$ |
| Take one of the following courses |  | 3 |
| CD-305 | Introduction to Audiology |  |
| CD-310 | Language Disorders |  |
| CD-320 | Speech Disorders |  |

## 4+1 Masters in Communication Sciences and Disorders

Program Requirements: Students would be eligible to apply if they meet the following conditions:

- Earned an cumulative GPA requirement of 3.5 in Worcester State University's undergraduate Communication Sciences and Disorders major.
- Has completed a minimum of 60 credits
- Two letters of recommendation, one must be from a department member
- Include any transcripts from other accredited undergraduate programs
- Completion of the graduate application essay
- Completion of the SLP Cover Sheet (included with the typical graduate SLP program application)

Conditional acceptance: Undergraduate students will maintain their conditional acceptance in the graduate SLP program so long as the student meets the following criteria:

- Maintains an cumulative GPA of 3.5 or higher,
- Earns a B- or higher in 500 -level courses (this requirement is aligned with the current graduate program policy requiring students to earn a $B$ - or higher to be considered a passing grade)
- Successfully completes the undergraduate degree in the time stated.

Upon completion of the BS, the student will be matriculated into the MS-SLP program.

Cross-Listed Courses: Students who are accepted into the $4+1.5$ program will complete up to 12 credits cross listed between undergraduate and graduate programs.

Application Review: Applications for this program will be accepted between Feb 1 and March 1 (unless March 1 falls on a weekend, in which case it will be moved to the next business day). These applications will be reviewed by the graduate SLP admissions
committee, separately from the cohort of traditional applications for the graduate SLP program received before Feb 1. Decision letters will be sent out in April and require students to accept or deny admissions by May 15 th. Note - this new $4+$ program will accommodate undergraduate students that graduate in the Fall or Spring term, i.e. December or May, respectively.

## Plan of Study - May Graduates

Year One

| Semester One |  | Credits |
| :---: | :---: | :---: |
| EN-101 | College Writing I | 3 |
| CD-100 | Introduction to Human Communication and its Disorders | 3 |
| $\begin{aligned} & \text { BI-103 } \\ & \quad \text { or MA-180 } \end{aligned}$ | The Human Animal or Introduction to Functions | 3 |
| BI-104 | The Human Animal Laboratory | 1 |
| CD-193 | Special Topics in Communication Sciences And Disorders for First-Year Students | 3 |
| LASC/Minor |  | 3 |
|  | Credits | 16 |


| Semester Two |  |  |
| :--- | :--- | ---: |
| EN-102 | College Writing II | 3 |
| CD-103 | Language Science | 3 |
| CD-110 | Anatomy and Physiology of | 3 |
| LASC/Minor |  | 3 |
| Physical Science |  | 4 |
|  | Credits | $\mathbf{1 6}$ |

Year Two
Semester Three

| CD-201 | Hearing Science | 3 |
| :--- | :--- | ---: |
| CD-105 | Phonetics | 3 |
| PS-101 | General Psychology | 3 |
| MA-180 | Introduction to Functionsand <br> or Bl-103 | Bl-104 1 credit  <br>  or The Human Animal |
| LASC/Minor |  | 3 |
|  | Credits | $\mathbf{1 5}$ |


| Semester Four |  | 3 |
| :--- | :--- | ---: |
| CD-115 | Normal Development of <br> Speech and Language | 3 |


| PS-210 | Developmental Psychology | 3 | LASC/Minor |  | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| MA-150 | Statistics I | 3 | LASC/Minor |  | 3 |
| LASC/Minor |  | 3 | UNDEGRADUATE COMMENCEMENT |  |  |
|  | Credits | 15 |  | Credits | 15 |
| Year Three |  |  | Summer |  |  |
| Semester Five |  |  | CD-924 | Voice Disorders | 3 |
| CD-230 | Neuroscience for Communication Sciences and Disorders | 3 | CD-947 | Augmentative/Alternative Communication | 1 |
|  |  |  | Elective |  | 1 |
| LASC/Minor |  | 3 |  | Credits | 5 |
| LASC/Minor |  | 3 | Year Five |  |  |
| LASC/Minor |  | 3 | Summer |  |  |
| LASC/Minor |  | 3 | CD-937 | Counseling in Communication Disorders | 2 |
|  | Credits | 15 |  |  |  |
| Semester Six |  |  | CD-946 | Organization of Speech Language Programs In Schools | 1 |
| APPLY HERE |  |  |  |  |  |
| CD-301 | Directed Observations | 2 |  |  |  |
| CD-305 | Introduction to Audiology | 3 | CD-926 | Reading and Writing Disabilities | 2 |
| CD-310 | Language Disorders | 3 |  |  | 3 |
| CD-320 | Speech Disorders | 3 |  | Practicum: Externships |  |
| LASC/Minor |  | 3 | Year 6-FALL |  |  |
| LASC/Minor |  | 3 | CD-925 | Motor Speech Disorders | 3 |
| Summer | Credits | 17 | CD-991 | Speech-Language-Hearing Practicum: Externships | 3 |
|  |  |  |  |  |  |
| CD-901 | Intro to Graduate and Clinical Skills ${ }^{\text {as CD-501 }}$ | 2 |  | Credits | 14 |
|  | Credits | 2 | CD-920 | Speech-Sound Disorders and Differences | 3 |
| Year Four |  |  |  |  |  |
| Semester Seven |  |  | CD-950 | Cognitive Communication Disorders | 3 |
| CD-400 | Introduction to Aural Rehabilitation | 3 |  |  |  |
|  |  |  | CD-923 | Fluency Disorders | 3 |
| CD-401 | Advanced Directed Observations | 2 | CD-990 | Speech-Language-Hearing Practicum: On-Campus Clinic | 3 |
| CD-410 | Professional Guidelines and Skills | 3 | Spring | Credits | 12 |
| CD-921 | Language Disorders in Children ${ }^{\text {as } \mathrm{CD}-521}$ | 3 | CD-928 | Aural Rehabilitation | 3 |
| LASC/Minor |  | 3 | CD-980 | Research in Communication Sciences and Disorders | 3 |
| Semester Eight | Credits | 14 | $\begin{aligned} & \text { CD-929 } \\ & \hline \text { CD-990 } \end{aligned}$ | Dysphagia | 3 |
|  |  |  |  | Speech-Language-Hearing <br> Practicum: On-Campus Clinic | 3 |
| CD-475 | Selected Topics in Communication Sciences and Disorders | 3 |  |  |  |
|  |  |  |  | Credits | 12 |
| CD-922 | Language Disorders in Adults as CD-522 | 3 |  | Total Credits | 168 |
| CD-940 | Evaluation and Diagnosis in Speech-Language Pathology as CD-540 | 3 |  |  |  |



| Year Five |  |  | LASC/Minor |  | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Summer |  |  |  | Credits | 16 |
| CD-937 | Counseling in Communication Disorders | 2 | Semester Two |  |  |
|  |  |  | EN-102 | College Writing II | 3 |
| CD-946 | Organization of Speech Language Programs In Schools | 1 | CD-103 | Language Science | 3 |
|  |  |  | CD-110 | Anatomy and Physiology of Speech And Hearing | 3 |
| CD-926 | Reading and Writing Disabilities | 2 | LASC/Minor |  | 3 |
| CD-991 | Speech-Language-Hearing Practicum: Externships | 3 | Physical Science |  | 4 |
|  |  |  |  | Credits | 16 |
| Year 6-FALL |  |  | Year Two |  |  |
| CD-925 | Motor Speech Disorders | 3 | Semester Three |  |  |
| CD-991 | Speech-Language-Hearing Practicum: Externships | 3 | CD-105 | Phonetics | 3 |
|  |  |  | CD-201 | Hearing Science | 3 |
| FallCD-920 | Credits | 14 | PS-101 | General Psychology | 3 |
|  | Speech-Sound Disorders and Differences | 3 | $\begin{aligned} & \mathrm{MA}-180 \\ & \quad \text { or } \mathrm{BI}-103 \end{aligned}$ | Introduction to Functions and B1-104 1 credit <br> or The Human Animal | 3 |
|  |  |  |  |  |  |
| CD-950 | Cognitive Communication Disorders | 3 | LASC/Minor |  | 3 |
|  |  |  |  | Credits | 15 |
| CD-923 | Fluency Disorders | 3 | Semester Four |  |  |
| CD-990 | Speech-Language-Hearing <br> Practicum: On-Campus Clinic | 3 | CD-115 | Normal Development of Speech and Language | 3 |
|  | Credits | 12 | CD-202 | Speech Science | 3 |
| Spring |  |  | PS-210 | Developmental Psychology | 3 |
| CD-928 | Aural Rehabilitation | 3 | MA-150 | Statistics I | 3 |
| CD-929 | Dysphagia | 3 | LASC/Minor |  | 3 |
| CD-990 | Speech-Language-Hearing Practicum: On-Campus Clinic | 3 | Year Three | Credits | 15 |
|  | Credits | 9 | Semester Five |  |  |
| Total Credits <br> Plan of Study - Psychology Mino |  | 153 | CD-230 | Neuroscience for Communication Sciences and Disorders | 3 |
| Year One |  | Credits | LASC/Minor |  | 3 |
| Semester One |  |  | LASC/Minor |  | 3 |
| EN-101 | College Writing I | 3 | PS-XXX Psychology | Elective | 3 |
| CD-100 | Introduction to Human Communication and its Disorders | 3 | PS-XXX Psychology Elective |  | 3 |
|  |  |  | Semester Six | Credits | 15 |
| $\begin{aligned} & \mathrm{BI}-103 \\ & \quad \text { or MA-180 } \end{aligned}$ | The Human Animal or Introduction to Functions | 3 | APPLY HERE |  |  |
|  |  |  | CD-301 | Directed Observations | 2 |
|  |  |  | CD-305 | Introduction to Audiology | 3 |
| BI-104 | The Human Animal Laboratory | 1 | CD-310 | Language Disorders | 3 |
| CD-193 | Special Topics in Communication Sciences And Disorders for First-Year Students | 3 | CD-320 | Speech Disorders | 3 |
|  |  |  | PS-XXX Psychology Elective |  | 3 |
|  |  |  | LASC/Minor |  | 3 |
|  |  |  |  | Credits | 17 |



## Computer Science

## Department of Computer Science

The Computer Science program offers an undergraduate education that promotes lifelong intellectual growth and prepares students for professional careers and advanced study. The program is grounded in the principles, theories, and application of the science of computing with special emphasis in the areas of Big Data Analytics and Software Development.

Students will develop the ability to effectively apply discipline knowledge to solve real-world problems, adapt as the field changes, and make ethical decisions. The curriculum provides the foundations of team skills and allows students to improve their interpersonal skills and professional attitudes. Students will have an opportunity to participate in an internship and in undergraduate research.

A laptop computer running Windows, macOS, or Linux is required for courses in the Computer Science program. 16GB of memory is suggested. A Chromebook will not work.

- Computer Science Major (p. 229)
- Computer Science Major, Concentration in Big Data Analytics (p. 231)
- Computer Science Major, Concentration in Software Development (p. 233)
- Computer Science Minor (p. 235)
- Bioinformatics Minor for Computer Science Majors (p. 185)
- Data Science Mino (p. 236)r


## Faculty

Ali Al-Faris, Assistant Professor (2021), B.S., College of Electronic Technology at Bani-Walid, Libya; M.S., University of Technology, Malaysia; Ph.D., University of Science, Malaysia

Nada AlSallami, Assistant Professor (2019), B.S., University of Technology, Iraq; M.S., University of Technology, Iraq; Ph.D., University of Technology, Iraq

Elena Braynova, Department Chair, Professor (2003), M.S., State University of New York, Buffalo; M.S., Ph.D., Moscow State University, Russia

Saba Kadady, Instructor (2022), B.S., MS., AI Nahrain University, Iraq

Karl R. Wurst, Professor (1999), B.S., Central Connecticut State University; M.S., Ph.D., University of Connecticut

## Courses

CS-101 Basics of Computer Science LASC Categories: QR
Prerequisites: Familiarity with basic computer operations. Pass math placement test with code of 3 or above, or a passing grade in a college level math course.
A survey course that provides a foundation in computer science by presenting a practical and realistic understanding of the field.
Fall and Spring and every year. 3 Credits
CS-120 Microcomputer Applications
LASC Categories: QR
Prerequisites: Familiarity with basic computer operations. Pass math placement test with code of 3 or above, or a passing grade in a college level math course.
Learning state-of-the-art application packages including but not limited to word processing, file and database management systems and spreadsheets. Fall and Spring and every year. 3 Credits

## CS-124 Health Informatics

LASC Categories: QR
Prerequisites: Familiarity with basic computer
operations. Pass math placement test with code of 3 or above, or a passing grade in a college level math course.
Use of computers and information systems in health care. Databases and spreadsheets. electronic health records. [Credit will not be awarded for both CS-120 and CS-124.]
Spring only and every year. 3 Credits
CS-131 Data Visualization and Statistical Analysis LASC Categories: QR
Prerequisites: Familiarity with basic computer operations such as using a text editor, saving and opening files, and MA 150 or MA 302 or EC 150 or PS 275 or SO 275 or familiarity with basics of Statistics. The course focuses on basic data visualization methods; basic statistical analysis; use of R; current visualization and statistical analysis tools.
Every year. 3 Credits

## CS-135 Programming for Non-CS Majors LASC Categories: QR

Prerequisites: Familiarity with basic computer operations. Pass math placement test with code of 3 or above, or a passing grade in a college level math course.
Introduction to programming. Emphasis on practical skills, working with data sets, doing analysis and visualization. No prior programming experience required.
Fall only and every year. 3 Credits

## CS-140 Introduction to Programming

LASC Categories: NLL
Prerequisites or Corequisite: CS-101
Introduction to fundamental structures and concepts of Computer Science including object-oriented programming; three lecture hours and one two-hour laboratory.
Every year. 4 Credits
CS-141 Data Cleaning and Preprocessing
Prerequisites: Familiarity with basic computer operations such as using a text editor, saving and opening files, and Math placement code of 3 or above or successful completion of a College level Math course.
The course focuses on basic data cleaning and preprocessing tasks, basic methods to perform them; methods to generalize and summary data.
Every year. 3 Credits
CS-155 Computer Networking and Security LASC Categories: QR
This course covers network protocols and the Internet; computer security fundamentals. Spring only and every year. 3 Credits

## CS-161 Web Design Using HTML

Introduces concepts needed for creation, design and implementation of effective web pages. Latest versions of mark-up language(s) will be used. Every year. 3 Credits

## CS-165 Digital Forensics

Prerequisites: CS-155
Digital forensics investigation; data acquisition; processing crime and incident scenes; multiple operating systems and file fomats; digital forensics tools, analysis and validation.
Every year. 3 Credits

CS-193 Special Topics in Computer Science for First Year Students
LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
3 Credits
CS-225 Discrete Structures I
Prerequisites: MA 180 or math placement code 6 or above.
Asymptotic notation, sequences, recursions and methods to solve them, proof techniques, relations, functions, sets and their basic properties.
Every year. 3 Credits

## CS-234 Data Mining for Non-Cs Majors

Prerequisites: MA 150 or MA 302 or EC 150 or PS
275 or SO 275 or familiarity with basic statistical methods, and familiarity with basic computer operations such as using a text editor, saving and opening files.
This course introduces basic Data Mining problems and methods to solve them: Classification, Numerical Prediction, Clustering, Association Rule Mining. Every year. 3 Credits
CS-242 Data Structures
LASC Categories: QAC
Prerequisites: CS-140.
Prerequisites or Corequisite: Pre-requisite or corequisite of CS-225.
Introduces time complexity and covers fundamental data structures: lists, stacks, ques, search trees, dictionaries, priority ques, $B$-trees and inverted files. Every year. 3 Credits

## CS-248 Algorithm Analysis

Prerequisites: CS-242
Prerequisites or Corequisite: CS-295.
Different algorithm design strategies, sorting, searching graph algorithms, parallel algorithms, algorithm complexity, turing machines, NP-hard and NP-complete problems.
Every year. 3 Credits

## CS-254 Computer Organization and Architecture LASC Categories: NLL

Prerequisites: CS-140 EN-102.
Prerequisites or Corequisite: Pre-requisite or corequisite of CS-295.
Combinational and sequential circuits, assembly language programming, digital computer architecture, instruction sets, addressing modes, memory hierarchies, I/O, and control circuits. Three lecture hours and two laboratory hours per week. Fall only and every year. 4 Credits

## CS-265 Database Applications <br> LASC Categories: QR

Prerequisites: Familiarity with basic computer operations. Pass math placement test with code of 3 or above, or a passing grade in a college level math course.
This course introduces basic database concepts and teaches how to create and manage a database; relational databases, use SQL; NoSQL databases.
Credit will not be awarded for both CS 265 and CS 286.

Fall only and every 2-3 years. 3 Credits

## CS-282 Unix Systems Programming

Prerequisites: CS-135 with a minimum grade of C-, or CS-140 with a minimum grade of C-, or CS-242.
Problem solving and software design using C ; introduction to UNIX programming utilities and text manipulation; low-level system programming in UNIX and C .
Spring only and every year. 3 Credits
CS-286 Database Design and Applications
Prerequisites: CS-135 or CS-140
Covers relational databases; database design using
ER model; query processing using SQL; NoSQL
databases. Credit will not be awarded for both CS 265 and CS 286.
Fall only and every year. 3 Credits
CS-295 Discrete Structures II
Prerequisites: CS-225
Logic, basic counting techniques, probabilities, basic graph theory.
Every year. 3 Credits
CS-335 Networking and Web Security
Prerequisites: CS-282
This course covers web and security problems, solutions, and techniques. Encryption, worms, viruses, firewall, safe practices, etc. are covered. Every 2-3 years. 3 Credits

## CS-343 Software Construction, Design and Architecture <br> Prerequisites: CS-286 <br> Prerequisites or Corequisite: CS-348

Software construction techniques and tools, software architectures and frameworks, design patterns, object-oriented design and programming. efficiency, reliability and maintainability of software.
Fall only and every year. 3 Credits

## CS-348 Software Process Management <br> Prerequisites: CS-140.

Prerequisites or Corequisite: PH-134 or UR-230.
Project management including planning, progress measurement, estimation, and risk assessment. Functional and non-functional requirements. Software licenses, contracts and intellectual property. Fall only and every year. 3 Credits

## CS-373 Operating Systems

Prerequisites: CS-254 and CS-282
Hardware and Software as an integrated system;
development of system software for process
management, resource allocation, memory
management and I/O processing. [Formerly CS 385
Operating Systems]
Every year. 3 Credits
CS-383 Cloud, Parallel an Distributed Computing
Prerequisites or Corequisite: CS-135 or CS-140 or CS-141.
The course introduces basics of Cloud Computing and fundamental computing technologies used for Big Data platforms such as Parallel, Distributed Computing.
Spring only and every year. 3 Credits
CS-405 Data Communications and Networking Prerequisites: CS-373
Data transmission, encoding, interfacing, synchronization, data-link control, multiplexing, networking, circuit switching, packet switching, radio and satellite, local area networks, network access protocols.
Other or on demand and other or on demand. 3 Credits

## CS-408 Directed Study: Computer Science

Directed study offers students, who because of unusual circumstances may be unable to register fro a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

CS-443 Software Quality Assurance and Testing Prerequisites: CS-242 and CS-295
Requirements analysis and test plan design. Testing strategies and techniques. Test coverage using statistical techniques. Code reviews and insepctions. Spring only and every year. 3 Credits

## CS-448 Software Development Capstone

LASC Categories: CAP
Prerequisites: CS-343
Prerequisites or Corequisite: CS-373 and CS-443 as prereq or coreq.
Development of a significant software system, following appropriate project and team management techniques. Requirements, design, implementation, quality assurance, professional, social and ethical issues.
Every year. 3 Credits

## CS-453 Data Mining

Prerequisites or Corequisite: CM-110, UR-230 or PH-134 Take MA-150 or MA-302;
Topics include data warehousing and mediation techniques; data mining meathods: rule-based learning; decision trees, association rules and sequence mining.
Fall only and every year. 3 Credits

## CS-472 Robotics

Prerequisites: CS-282
Design and implementation of robotic systems, snesors and sensing, effectors, mechanics, control startegies and architectures, hardware and software issues.
Other or on demand and other or on demand. 3 Credits

CS-483 Big Data Analytics Capstone
LASC Categories: CAP
Prerequisites: CS-453
Prerequisites or Corequisite: CS-383
The course introduces methods and techniques used for Big Data analysis. The course discusses Analytics tools for a variety of data applications and includes a major team project.
Every year. 3 Credits
CS-497 Selected Topics: Computer Science
Prerequisites: CS-282
Selection of topics of mutual interest to student and faculty.
Other or on demand. 1-6 Credits

CS-498 Internship: Computer Science
Prerequisites: 21 credit hours in Computer Science courses including CS-282
Working in and for an organization where skills can be tested in real situations in order to gain experience, increase knowledge in various functional areas, and establish important contacts with an organization.
Every year. 3 Credits
CS-499 Independent Study: Computer Science
Prerequisites: 18 credit hours in Computer Science including CS-282.
An opportunity for advanced students to examine topics not normally taught in other mathematics or computer courses. Geared to the interests of both the student and the instructor.
Every year. 1-6 Credits

## Program Learning Outcomes

- Analyze a problem, design/develop multiple solutions and evaluate and document the solutions based on the requirements.
- Communicate effectively in both oral and written form.
- Identify professional and ethical considerations and apply ethical reasoning to technological solutions to problems.
- Demonstrate an understanding of and appreciation for the importance of negotiation, effective work habits, leadership, and good communication with teammates and stakeholders.
- Learn new models, techniques, and technologies as they emerge and appreciate the necessity of such continuing professional development.


## Computer Science Major

## Program Outcomes for the Major in Computer Science

Upon completion of the Computer Science Major students will be able to:

- Analyze a problem, develop/design multiple solutions, and evaluate and document the solutions based on the requirements.
- Communicate effectively both in written and oral form.
- Identify professional and ethical considerations and apply ethical reasoning to technological solutions to problems.
- Demonstrate an understanding of and appreciation for the importance of negotiation, effective work habits, leadership, and good communication with teammates and stakeholders.
- Learn new models, techniques, and technologies as they emerge and appreciate the necessity of such continuing professional development.

It is highly recommended that entering students have four years of high school mathematics including the equivalent of pre-calculus.

Students wishing to apply courses transferred from other institutions to the Computer Science major should meet with the department chair to determine the applicability of the courses before registering for any Computer Science courses at Worcester State University.

A laptop computer running Windows, macOS, or Linux is required for courses in the Computer Science program. 16GB of memory is suggested. A Chromebook will not work.

## Requirements for a Major in Computer Science

Students must complete a core of ten Computer Science courses, one of the three Computer Science concentrations, two Computer Science Elective courses, and 31 credits of Ancillary courses.

If a CS student completed two of the three CS concentrations, he/she will be able to declare another concentration and two of the courses in the subsequent concentration can be used to fulfill the 6 credits of required CS electives.

| Code | Title | Credits |
| :--- | :--- | ---: |
| Core Courses |  | $(38$ <br> credits) |
| CS-101 | Basics of Computer Science | 3 |
| CS-140 | Introduction to Programming | 4 |
| CS-155 | Computer Networking and | 3 |
| CS-225 | Security | 3 |
| CS-242 | Discrete Structures I | 3 |
| CS-248 | Data Structures | 3 |


| CS-254 | Computer Organization and Architecture | 4 |
| :---: | :---: | :---: |
| CS-282 | Unix Systems Programming | 3 |
| CS-286 | Database Design and Applications | 3 |
| CS-295 | Discrete Structures II | 3 |
| CS-348 | Software Process Management | 3 |
| CS-373 | Operating Systems | 3 |
| Elective Courses |  | $\begin{array}{r} (3 \\ \text { credits) } \end{array}$ |
| Credits in Compute level or above ${ }^{1}$ | Science courses at the 300 | 3 |
| Required CS Conce | ntration | $\begin{array}{r} (9 \\ \text { credits) } \end{array}$ |
| One of the CS Conc or Software Develo | entrations (Big Data Analytics ment) | 9 |
| Ancillary Requirem | nts ${ }^{2}$ | (31 credits) |
| CM-110 | Public Speaking | 3 |
| EN-252 | Technical Writing | 3 |
| UR-230 | Technology, Public Policy and Urban Society | 3 |
| or PH-134 | Computing Ethics |  |
| MA-150 | Statistics I ${ }^{3}$ | 3 |
| or MA-302 | Probability and Statistics |  |
| MA-200 | Calculus I | 4 |
| 2 lab science courses |  | 8 |
| 2 approved math or science course chosen from a department-approved list of courses ${ }^{4}$ |  | 7 |

## Total Credits

81
${ }^{1}$ Up to 3 credits of Internship (CS-498) and up to 3 credits of Independent Study (CS-499) may be used to satisfy the major elective requirements.
${ }^{2} 31$ credits (may apply to LASC requirements). These ancillary courses cannot be taken on a pass/fail basis
${ }^{3}$ Students planning a Mathematics minor or a Computer Science/Mathematics double major should take MA-302.
${ }^{4}$ Students planning a Mathematics minor or a Computer Science/Mathematics double major should take math courses required for the Mathematics minor/major.

## Computer Science Major, Concentration in Big Data Analytics

Data is being generated at high speed, in large volumes, and by a variety of systems around the world. In such a data-driven and information-centric world, the ability to analyze information and make informed decisions is crucial to every field including business, medicine, the sciences, entertainment, and government. This concentration provides students with the skills, techniques, and knowledge needed to pursue a career in this field.

## Program Outcomes for the Major in Computer Science, Concentration in Big Data Analytics

Graduates of the Big Data Analytics Concentration will be able to (in addition to the Computer Science Major Program Learning Outcomes):

- Apply basic models, methods, programming languages, and tools for data storage, management and processing.
- Apply current data visualization techniques, programming languages and tools.
- Apply basic statistical data analysis methods, programming languages and tools.
- Apply cloud and distributed computing techniques, tools and services to solve real-word Big Data problems.
- Evaluate, select and apply data mining models, methods and tools for real-word problems.
- Evaluate, select and apply tools and technologies to analyze and solve Big Data problems.

A laptop computer running Windows, macOS, or Linux is required for courses in the Computer Science program. 16GB of memory is suggested. A Chromebook will not work.

## Requirements for the Concentration in Big Data Analytics


${ }^{1}$ Up to 3 credits of Internship (CS-498) and up to 3 credits of Independent Study (CS-499) may be used to satisfy the major elective requirements.
${ }^{2} 31$ credits (may apply to LASC requirements). These ancillary courses cannot be taken on a pass/fail basis
${ }^{3}$ Students planning a Mathematics minor or a Computer Science/Mathematics double major should take MA-302.
${ }^{4}$ Students planning a Mathematics minor or a Computer Science/Mathematics double major should take math courses required for the Mathematics minor/major.

Department of Computer Science: Big Data Analytics Concentration Sample Timeline for Completion of Degree
This four-year plan assumes a Math Placement score of at least 6 .

| Year One |  | Credits |
| :--- | :--- | ---: |
| Semester One |  | 3 |
| CS-101 | Basics of Computer Science | 3 |
| EN-101 | College Writing I | 4 |
| MA-190 | Pre-calculus (or Math/ <br> Science Course) |  |
| LASC | First-Year Seminar (FYS) <br> $($ p. 50 $)$ | 3 |
| LASC | LASC Elective (CON) (p. 47) ${ }^{3}$ | 3 |
|  | Credits | $\mathbf{1 6}$ |

## Semester Two

| CS-140 | Introduction to Programming | 4 |
| :--- | :--- | ---: |
| CS-155 | Computer Networking and <br> Security | 3 |
|  | College Writing II | 3 |
| EN-102 | Calculus I | 4 |
|  | Credits | $\mathbf{1 4}$ |


| Year Two |  |  |
| :--- | :--- | ---: |
| Semester Three |  | 3 |
| CS-225 | Discrete Structures I | 3 |
| CS-242 | Data Structures | 3 |
| CS-286 | Database Design and <br> Applications | 3 |
| EN-252 | Technical Writing |  |


| UR-230 <br> or PH-134 | Technology, Public Policy <br> and Urban Society <br> or Computing Ethics | 3 |
| :---: | :--- | :---: |
|  | Credits | $\mathbf{1 5}$ |


| Semester Four |  |  |
| :--- | :--- | ---: |
| CS-282 | Unix Systems Programming | 3 |
| CS-295 | Discrete Structures II | 3 |
| CM-110 | Public Speaking | 3 |
| LASC | LASC Elective (GP) (p. 51) |  |
| LASC | LASC Elective (CA) (p. 48) | 3 |
|  | Credits | 3 |

## Year Three

Semester Five

| CS-248 | Algorithm Analysis | 3 |
| :---: | :---: | :---: |
| CS-254 | Computer Organization and Architecture | 4 |
| CS-348 | Software Process Management | 3 |
| $\begin{aligned} & \text { MA-150 } \\ & \quad \text { or MA-302 } \end{aligned}$ | Statistics ${ }^{4}$ or Probability and Statistics | 3 |
| LASC | Lab Science (DAC) | 3 |


| Semester Six |  |  |
| :--- | :--- | ---: |
| CS-373 | Operating Systems | 3 |
| CS-383 | Cloud, Parallel an Distributed <br> Computing | 3 |
| LASC | Math or Science course ${ }^{2}$ | $3-4$ |
| LASC | Lab Science (NSP) (p. 58) | 4 |
| LASC | ${ }_{3}$ LASC Elective (USW) (p. 60) | 3 |
|  | Credits | $\mathbf{1 6 - 1 7}$ |

## Year Four

Semester Seven

| CS-453 | Data Mining | 3 |
| :--- | :--- | ---: |
| LASC | ${\text { LASC Elective (NSP) }(\text { p. 58) })^{3}}^{4}$ |  |
| SELECT | General Elective | 4 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 3}$ |

## Semester Eight

| CS-483 | Big Data Analytics Capstone | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective (ICW) (p. 55) |  |
| SELECT | $300+$ Level Elective in Major | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 3 |
|  | Total Credits | $\mathbf{1 5}$ |
|  | $\mathbf{1 2 0 - 1 2 1}$ |  |

${ }^{1}$ If the students math placement score requires her/him to take MA-190, it should be taken this semester, so that MA-200 can be taken in the Spring semester. EN-101 \& EN-102 satisfy LASC writing requirements.
${ }^{2}$ All Math and Science courses must be selected from a list of department approved courses.
${ }^{3}$ The sequence of LASC courses marked with ${ }^{3}$ is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements
${ }^{4}$ Students planning a Mathematics minor or a Computer Science/Mathematics double major should take MA-302.

## Note:

The sequence of LASC courses marked with ${ }^{3}$ is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Once LASC requirements are satisfied, students may select general requirements. Please refer to the University Catalog for specific curriculum details regarding major and LASC requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Computer Science Major, Concentration in Bioinformatics

The concentration has been replaced by the new Interdisciplinary Minor in Bioinformatics for Computer Science Majors (p. 185). Please see your departmental academic advisor for more information.

## Computer Science Major, Concentration in Software Development

Software systems impact all aspects of life, from phones, to cars, to work lives, and beyond. Software developers analyze the software and infrastructure needs of people and organizations and then coordinate the design, implementation, and testing of the solutions. This concentration provides students with the skills, techniques, and knowledge needed to pursue a career in this field.

## Program Outcomes for the Major in Computer Science, Concentration in Software Development

Graduates of the Software Development Concentration will be able to (in addition to the Computer Science Major Program Learning Outcomes):

- Work with stakeholders to specify, design, develop, test, modify, and document a software system.
- Organize, plan, follow, and improve on, appropriate software development methodologies and team processes for a software project.
- Evaluate, select, and use appropriate tools for source code control, build, test, deployment, and documentation management.
- Evaluate, select, and apply appropriate testing techniques and tools, develop test cases, and perform software reviews.
- Apply professional judgement, exhibit professional behavior, and keep skills up-to- date

A laptop computer running Windows, macOS, or Linux is required for courses in the Computer Science program. 16GB of memory is suggested. A Chromebook will not work.

## Requirements for the Concentration in Software Development

12 credits in addition to the Core, Elective, and Ancillary courses.

| Code | Title | Credits <br> (38 |
| :--- | :--- | ---: |
| Core Courses |  | credits) |
| CS-101 | Basics of Computer Science | 3 |
| CS-140 | Introduction to Programming | 4 |
| CS-155 | Computer Networking and <br> Security | 3 |
| CS-225 | Discrete Structures I | 3 |
| CS-242 | Data Structures | 3 |
| CS-248 | Algorithm Analysis | 3 |
| CS-254 | Computer Organization and | 4 |
|  | Architecture |  |
| CS-282 | Unix Systems Programming | 3 |
| CS-286 | Database Design and | 3 |
|  | Applications |  |
| CS-295 | Discrete Structures II | 3 |
| CS-348 | Software Process | 3 |
| Management |  |  |
| CS-373 | Operating Systems | 3 |
| Elective Courses |  | 3 |
|  |  | credits) |


| Credits in Computer Science courses at the 300 level or above ${ }^{1}$ |  | 3 |
| :---: | :---: | :---: |
| Ancillary Requirements ${ }^{2}$ |  | (31 |
| CM-110 | Public Speaking | 3 |
| EN-252 | Technical Writing | 3 |
| UR-230 | Technology, Public Policy and Urban Society | 3 |
| or PH-134 | Computing Ethics |  |
| MA-150 | Statistics I ${ }^{3}$ | 3 |
| or MA-302 | Probability and Statistics |  |
| MA-200 | Calculus I | 4 |

2 lab science courses 8

2 approved math or science course chosen from 7
a department-approved list of courses ${ }^{4}$
Requirements for the Concentration in Software (9
Development

| Cs-343 | Software Construction, <br> Design and Architecture | 3 |
| :--- | :--- | :--- |
| Cs-443 | Software Quality Assurance <br> and Testing | 3 |

${ }^{1}$ Up to 3 credits of Internship (CS-498) and up to 3 credits of Independent Study (CS-499) may be used to satisfy the major elective requirements.
${ }^{2} 31$ credits (may apply to LASC requirements). These ancillary courses cannot be taken on a pass/fail basis
${ }^{3}$ Students planning a Mathematics minor or a Computer Science/Mathematics double major should take MA-302.
${ }^{4}$ Students planning a Mathematics minor or a Computer Science/Mathematics double major should take math courses required for the Mathematics minor/major.

## Department of Computer Science: Software Development Concentration Sample Timeline for Completion of Degree

This four-year plan assumes a Math Placement score of at least 6 .

## Year One

| Semester One | Credits |  |
| :--- | :--- | ---: |
| CS-101 | Basics of Computer Science | 3 |
| EN-101 | College Writing I | 3 |
| MA-190 | Pre-calculus (or Math/ | 4 |
|  | Science Course) ${ }^{1,2}$ |  |
| LASC | Freshman Seminar (FYS) | 3 |
| LASC | LASC Elective (CON) (p. 47) ${ }^{3}$ | 3 |
|  | Credits | $\mathbf{1 6}$ |

Semester Two

| CS-140 | Introduction to Programming | 4 |
| :--- | :--- | ---: |
| CS-155 | Computer Networking and <br> Security | 3 |
|  | College Writing II | 3 |
| EN-102 | Calculus I (QR) | $\mathbf{4}$ |
|  | Credits | $\mathbf{1 4}$ |

Year Two
Semester Three

| CS-225 | Discrete Structures I | 3 |
| :--- | :--- | :--- |
| CS-242 | Data Structures | 3 |


| CS-286 | Database Design and Applications | 3 |
| :---: | :---: | :---: |
| EN-252 | Technical Writing | 3 |
| $\begin{aligned} & \text { UR-230 } \\ & \text { or PH-134 } \end{aligned}$ | Technology, Public Policy and Urban Society (HBS) or Computing Ethics | 3 |
|  | Credits | 15 |
| Semester Four |  |  |
| CS-282 | Unix Systems Programming | 3 |
| CS-295 | Discrete Structures II | 3 |
| CM-110 | Public Speaking (TLC) | 3 |
| LASC | LASC Elective (GP) (p. 51) ${ }^{3}$ | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
|  | Credits | 15 |
| Year Three |  |  |
| Semester Five |  |  |
| CS-248 | Algorithm Analysis | 3 |
| CS-254 | Computer Organization and Architecture | 4 |
| CS-348 | Software Process Management | 3 |
| $\begin{aligned} & \text { MA-150 } \\ & \quad \text { or MA-302 } \end{aligned}$ | Statistics ${ }^{4}$ <br> or Probability and Statistics | 3 |
| LASC | LASC Elective (p. 46) | 3 |
|  | Credits | 16 |
| Semester Six |  |  |
| CS-373 | Operating Systems | 3 |
| CS-443 | Software Quality Assurance and Testing | 3 |
| LASC | Math or Science course ${ }^{2}$ | 3-4 |
| LASC | Lab Science (NSP) (p. 58) | 4 |
| LASC | LASC Elective (USW) (p. 60) 3 | 3 |

## Year Four

Semester Seven

| CS-343 | Software Construction, Design and Architecture | 3 |
| :---: | :---: | :---: |
| LASC | LASC Elective (NSP) (p.58) ${ }^{3}$ | 4 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 13 |

## Semester Eight

| CS-448 | Software Development <br> Capstone | 3 |
| :--- | :--- | :--- |
| LASC | LASC Elective (ICW) $($ p. 55) |  | 3 $\quad 3$| 3 |
| :--- |
| SELECT |


| SELECT | General Elective | 3 |
| :--- | :--- | ---: |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
|  | Total Credits | $\mathbf{1 2 0 - 1 2 1}$ |

${ }^{1}$ If the students math placement score requires her/him to take MA-190, it should be taken this semester, so that MA-200 can be taken in the Spring semester. EN-101 \& EN-102 satisfy LASC writing requirements.
${ }^{2}$ All Math and Science courses must be selected from a list of department approved courses.
${ }^{3}$ The sequence of LASC courses marked with ${ }^{3}$ is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements
${ }^{4}$ Students planning a Mathematics minor or a Computer Science/Mathematics double major should take MA-302.

## Note:

Once LASC requirements are satisfied, students may select general requirements. Please refer to the University Catalog for specific curriculum details regarding major and LASC requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Computer Science Minor <br> Requirements for a Minor in Computer Science

| Code | Title | Credits |
| :--- | :--- | ---: |
| CS-101 | Basics of Computer Science | 3 |
| CS-135 | Programming for Non-CS <br> Majors | $3-4$ |
| or CS-140 | Introduction to Programming |  |
| CS-155 | Computer Networking and <br> Security | 3 |
| PH-134 | Computing Ethics (Or take a <br> 200+ level CS course) | 3 |
|  |  |  |


| or UR-230 | Technology, Public Policy and Urban <br> Society |
| :--- | :--- | ---: |
| Take a 3-4 credit 200 + level CS course | $3-4$ |
| Take a $300+$ level CS course | 3 |
| Total Credits | $\mathbf{1 8 - 2 0}$ |

Students in the Computer Science Minor will be able to:

- Understand basic concepts in variety of Computer Science fields.
- Understand basic syntax of programming languages and apply a programming language to solve real-word problems.
- Understand the fundamentals of networks, protocols, the Internet and computer security.
- Analyze a problem, develop/design multiple solutions, and evaluate and document the solutions based on the requirements.
- Communicate effectively both in written and oral form.
- Learn new models, techniques, and technologies as they emerge and appreciate the necessity of such continuing professional development.
- Identify professional and ethical considerations and apply ethical reasoning to technological solutions to problems.


## Data Science Minor

| Code | Title | Credits |
| :--- | :--- | ---: |
| CS-131 | Data Visualization and <br> Statistical Analysis | 3 |
| CS-141 | Data Cleaning and <br> Preprocessing | 3 |
| CS-265 | Database Applications | 3 |
| CS-234 | Data Mining for Non-Cs <br> Majors | 3 |
| CS-383 | Data Mining | 3 |
| UR-230 | Cloud, Parallel an Distributed <br> Computing | 3 |
| or PH-134 | Technology, Public Policy <br> and Urban Society <br> Computing Ethics |  |

Total Credits
Students in the Computer Science Data Science
Minor will be able to:

- Clean and preprocess a given dataset for further analysis.
- Analyze a given dataset using visualization, statistical analysis and Data Mining/Machine Learning methods.
- Manage and process data stored in relational and NoSQL databases.
- Apply basic Cloud, Parallel and Distributive Computing methods solving a Big Data problem.
- Communicate effectively both in written and oral form.
- Learn new models, techniques, and technologies as they emerge and appreciate the necessity of such continuing professional development.
- Apply ethical principals working with data.


## Environmental Science Department of Earth, Environment, and Physics

Environmental Science is an interdisciplinary science major for students interested in the exploration of human interactions with the natural world. Course work includes fundamental concepts in biology, chemistry, earth science, and physics and emphasizes an interdisciplinary approach to environmental science. The major provides a broad foundation, introducing students to scientific techniques, analyses, and tools for assessing human impacts on environmental systems and for mitigating or remediating environmental harm. Hands-on field and laboratory investigations of environmental systems are emphasized in course work and through opportunities for guided research with faculty mentors.

The Environmental Science major provides a pathway into a variety of careers and graduate programs. The major is appropriate for students interested in careers in education, environmental conservation, natural resource management, environmental consulting, planning, and a wide variety of specialized scientific disciplines. Environmental science majors are well prepared for graduate studies in the earth and environmental sciences as well as diverse fields such as business, law, environmental management, or sustainability studies. Students are encouraged to participate in study abroad opportunities to develop a global awareness of environmental issues and approaches to solving these issues.

Undergraduate Environmental Science majors who have demonstrated academic excellence and an interest in Environmental Science research may participate in the Honors in Environmental Science program

- Environmental Science Major (p. 241)
- Environmental Science Minor (p. 242)


## Faculty

Anne Armstrong, Assistant Professor (2022), B.A., Hamilton College; M.P.S., SUNY College of Environmental Science and Forestry; M.S., Ph.D., Cornell University

Andrew Burkhardt, Assistant Professor (2022), B.S., University of Michigan; M.S., Ph.D., University of Virginia

Allison Dunn, Department Chair, Professor (2007), B.A., Oberlin College; M.A., Ph.D., Harvard University

William Hansen, Professor (2005), B.A., State
University of New York Albany; M.A., Hunter College; Ph.D., City University of New York Graduate Center

Matthew Kaufman, Assistant Professor (2023), B.S.E.S., Keene State College; Ph.D., University of Texas at Austin's Jackson School of Geosciences

Margaret E. Kerr, Professor (2000), B.S., University of Maine; Ph.D., Wesleyan University

Nabin K. Malakar, Associate Professor (2017), M.S., Ph.D., University at Albany, State University of New York (SUNY)

Kathleen Murphy, Associate Professor (2014), B.S., College of William and Mary; M.S., Ph.D., University Of Massachusetts, Amherst

Steven J. Oliver, Professor (2003), B.A., University of Montana; Ph.D., Boston University

Laura C. Reynolds, Assistant Professor (2020), B.A., Dartmouth College; Ph.D., University of California

Randall Tracy, Professor (2003), B.S., M.S., University of Connecticut; Ph.D., Arizona State University

Sebastian Velez, Professor (2012), B.S., University of Puerto Rico; M.S., University of Notre Dame; Ph.D., Harvard University

## Courses

EV-110 Meteorology
LASC Categories: NSP
Understanding the atmosphere and worldwide weather, Earth-Sun relationships, atmospheric humidity and precipitation, air pressure and winds, circulation of the atmosphere, climate change, air pollution, stratospheric ozone depletion, and extreme weather.
Fall and Spring and every year. 3 Credits

## EV-120 Integrated Environmental Science for Educators <br> LASC Categories: NSP, LAB

Introduction to the scientific method. Physical, biological and earth sciences as applied to problems in environmental science. Three lecture hours and Two laboratory hours per week.
Fall and Spring and every year. 4 Credits

## EV-130 Environmental Problems and Solutions

LASC Categories: NSP, WAC
Prerequisites: Writing II
The course is an introduction to human impacts on the earth and ecosystem processes. The complexity of these issues is examined through a series of case studies examining global, regional and local issues. Fall and Spring and every year. 3 Credits

## EV-150 Environmental Science

LASC Categories: NSP
Interdisciplinary scientific study of human impacts on natural systems. Introduction to fundamental concepts and tools of environmental impact analysis. Fall and Spring and every year. 3 Credits

## EV-193 Special Topics in Environmental Science For

 First Year StudentsLASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Other or on demand. 3 Credits
EV-199 Special Topics in Environmental Science Lecture or laboratory course in selected areas of Environmental Science presented by departmental instructor. Topics will be announced in advance. 1-6 Credits

EV-210 Chemical Analysis: an Introduction to Modern Methods
LASC Categories: NLL, WAC
Prerequisites: $\mathrm{CH}-120, \mathrm{CH}-121$ (minimum grade C -), and EN-102.
Introduction to modern methods of chemical analysis including gravimetry, acid-base and redox titrations, potentiometry, UV-visible and atomic absorption spectrophotometry, and gas and HPLC chromatography. Three lecture hours and four laboratory hours per week. [Cross-listed with CH-210.] Every year. 5 Credits

## EV-218 Introduction to Remote Sensing <br> LASC Categories: NSP

Prerequisites: GS-101 or GS-140 or EV-150 or BI-101 or BI-140
Introduction to the use and analysis of remotely sensed images such as aerial photographs and satellite imagery. [Cross-listed with GS-218.]
Every year. 3 Credits
EV-220 Energy and the Environment
LASC Categories: NSP
Prerequisites: A college level math course or a math placement code 3.
Explore the important questions surrounding energy, environment, and climate.
Fall only and every 2-3 years. 3 Credits

## EV-230 Biogeography

Prerequisites: GS-101 or GS-110 or $\mathrm{BI}-101$ or $\mathrm{BI}-140$ The distribution patterns of plants and animals, processes affecting this distribution, and how these patterns change in space and time. [Cross-listed with GS-230.]
Every 2-3 years. 3 Credits

## EV-235 Contemporary Climate Change

Prerequisites: GS-101 or GS-110 or EV-150 or CH-106. The global climate system, factors influencing climate, recent climate change and the role of human activity. [Cross-listed with GS-235.]
Every 2-3 years. 3 Credits

## EV-301 Topics in Invertebrate Zoology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-202$ with a grade of C - or above.
Considers anatomy, taxonomy (including selected articles of the international code of zoological nomenclature), natural history, and evolutionary relationships of selected invertebrate phyla. Three hours of lecture and a three-hour laboratory per week. [Cross-listed with BI-301.]
Spring only and every 2-3 years. 4 Credits

## EV-320 Environmental Chemistry LASC Categories: NLL

Prerequisites: $\mathrm{CH}-120$ and $\mathrm{CH}-121$ with a grade of C or above.
Chemistry of the atmosphere, soil, and natural water systems, air and water pollution, water treatment, hazardous wastes and pollution control. Lab techniques including sampling and analysis of environmental media. Lecture 3 hours per week and Lab will meet once a week for 3 hours. [Cross-listed with $\mathrm{CH}-320$.]
Fall only and every year. 4 Credits
EV-330 Environmental Toxicology
Prerequisites: $\mathrm{CH}-201$ or $\mathrm{CH}-320$ with a grade of C - or above.
Topics include the pharmacological and biochemical properties of toxins and the effects of toxins on human health, including assessment of risk(s).
[Cross-listed with $\mathrm{CH}-330$.]
Every 2-3 years. 3 Credits
EV-331 Marine Biology
LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-202$ with a grade of C - or above.
Considers the marine environment, its flora and fauna, distribution and production of plankton-nekton-benthos, zoogeography, bioeconomic factors and potential. Three lecture hours and a three-hour laboratory per week. [Cross-listed with BI-331.] Every 2-3 years. 4 Credits

## EV-333 Topics in Vertebrate Zoology LASC Categories: NLL

Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-202$ with grade of C - or above.
Life histories, adaptations, distribution, systematics, and economic importance of selected vertebrates taxa. Each semester will focus on a particular taxon. Three hours of lecture and a three-hour laboratory per week. [Cross-listed with BI-333.]
Every 2-3 years. 4 Credits

## EV-334 Wildlife Biology <br> LASC Categories: NLL

Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-202$ with grade of C - or above.
Theory and Practice of wildlife management. Considers procedures for collection and analysis of field and laboratory data on vertebrate game populations useful to wildlife biologists. Three hours of lecture and a three-hour laboratory per week.
[Cross-listed with BI-334.]
Every 2-3 years. 4 Credits

## EV-335 Hydrogeology

Prerequisites: GS-140 or GS-250 and a math placement exam score of 3 , or a college level math course.
Underground water and its movement. Aquifer identification and test; wells, contamination and remediation, ground water as a geologic agent.
[Cross-listed with GS-335.]
Every 2-3 years. 3 Credits

## EV-340 Plant Sciences

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140$ and $\mathrm{BI}-202$ with a grade of C - or above.
Morphology, anatomy, physiology of flowering plants with studies on life cycles, ecological relationships, biochemical processes and evolution of plant diversity. Three lecture hours and three laboratory hours per week. [Cross-listed with BI-340.]
Every 2-3 years. 4 Credits

## EV-344 Soil Biology

LASC Categories: NLL
Prerequisites: $\mathrm{BI}-140, \mathrm{BI}-141, \mathrm{BI}-204, \mathrm{CH}-120$, and $\mathrm{CH}-121$ with a grade of C - or above.
Includes study of nutrient cycling, relations between plants, animals, and microbes, ecology of polluted soils and soil biotechnology. Three lecture hours and three laboratory hours per week. [Cross-listed with BI-344.]
Every 2-3 years. 4 Credits
EV-345 Green Chemistry
LASC Categories: NLL
Prerequisites: $\mathrm{CH}-201$ or $\mathrm{CH}-320$ with a grade of C - or above.
This course will provide an understanding of the fundamentals of green chemical design that either eliminates or reduces the use of generation of hazardous substances. Three hours of lecture/lab per week. [Cross-listed with $\mathrm{CH}-335$.]
Every 2-3 years. 3 Credits

## EV-348 Fundamentals of Earth Data Analytics LASC Categories: NSP, QR, QAC

Prerequisites: GS-101 Take 1 course from Subject GS and level 200.
The theory and practice of data analytics using remote sensing and in-situ earth observations, and communicating the science.
Every 2-3 years. 4 Credits
EV-360 Animal Behavior
LASC Categories: NLL
Prerequisites: $\mathrm{BI}-202$ or PB-200 with a grade of C - or above.
Survey of ethology and behavioral ecology from an historical and evolutionary perspective. Laboratory involves observation, recording and analysis of animal behavior. Three lecture hours and three laboratory hours per week.[Cross-listed with BI-360.] Every 2-3 years. 4 Credits

## EV-370 Lakes \& Environmental Change <br> LASC Categories: WAC, NLL

Prerequisites: GS-140 Take one earth science course at the 200-level or above.
Modern physical, biogeochemical, and sedimentary processes in lakes. Lake sediments as archives of past climate and environmental change. Includes fieldwork. [Cross-listed with GS-370.]
Every 2-3 years. 4 Credits
EV-380 Biodiversity and Conservation Biology LASC Categories: LAB
Prerequisites: $\mathrm{BI}-140, \mathrm{BI}-141, \mathrm{BI}-202$, and $\mathrm{BI}-203$ with a grade of C - or above.
A theoretical and quantitative approach to species, genetic, ecosystem and community diversity in the context of modern conservation biology principles. Three lecture hours and three laboratory hours per week. [Cross-listed with BI-380.]
Every 2-3 years. 4 Credits

## EV-400 Environmental Science Seminar LASC Categories: CAP

Prerequisites: 50 credits in the major. Students with senior standing who have completed the core courses.
Capstone course for Environmental Science majors. Creation and presentation of a review or research paper and career preparation.
Fall and Spring and every year. 3 Credits

EV-408 Directed Study: Environmental Science
Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3-4 Credits
EV-410 Independent Study in Environmental Science
Opportunity for advanced students to pursue a topic of special interest involving extensive reading, experimentation, and research.
1-6 Credits
EV-412 Special Topics in Environmental Science Intended for the undergraduate who wishes to undertake study of selected topics in Environmental Science of mutual interest to student and faculty. 1-6 Credits

## EV-420 Advanced Environmental Research and

 FieldworkLab and or field-based research on a specific environmental topic under supervision of a faculty member. [Permission of instructor.]
Other or on demand and other or on demand. 1-6 Credits

## EV-460 Internship: Environmental Science

Students assigned to various government and private agencies under joint supervision of agency and faculty. Major GPA of 3.0 or above required.
Other or on demand. 1-6 Credits

## Program Learning Outcomes

- Demonstrate a command of fundamental concepts of earth science, biology, chemistry, physics, and mathematics as applied to environmental problems.
- Demonstrate expertise in an environmental focus area.
- Apply the scientific method to solve environmental problems.
- Locate, evaluate, and utilize various information sources and content.
- Communicate environmental data and concepts.
- Obtain entry level employment and/or gain admission into graduate school.


## Environmental Science Major Requirements for a major in Environmental Science: $\mathbf{3 0}$ credits

| Code | Title | Credits |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Required Foundation Courses |  | (6-7 <br> credits) | Students in the Environmental Science major are not required to take LASC NSP or QR courses outside |  |  |
| EV-150 | Environmental Science | 3 | of the major. Students are required to meet with their department advisor to review their upcoming semester academic choices. |  |  |
| $\begin{aligned} & \text { GS-140 } \\ & \quad \text { or GS-101 } \end{aligned}$ | Physical Geology <br> Physical Geography | 3-4 |  |  |  |
| Intermediate Courses |  |  | Department of Earth, Environment and Physics - |  |  |
| Change |  |  |  | ence Major | Environmental Science Major |
| Select two of the following: |  | 6 | Sample Timeline for Completion of |  |  |
| GS-225 | Oceanography |  | Degree |  |  |
| GS-250 | Hydrology |  | Year One |  |  |
| GS-260 | Introduction to Soil Science |  | Semester One |  | Credits |
| Advanced Courses |  | (12 | EV-150 | Environmental Science | 3 |
|  |  | credits) | GS-140 | Physical Geology | 3-4 |
| Environmental science electives approved by the student's advisor. ${ }^{1}$ |  | 12 | or GS-101 | or Physical Geography |  |
|  |  | MA-150 | Statistics I | 3 |
| Capstone |  |  |  | or MA-302 or Probability and Statistics |  |  |
| EV-400 | Environmental Science <br> Seminar (Ancillary Courses) | 3 | EN-101 | College Writing I | 3 |
|  |  |  | LASC | First-Year Seminar (FYS) | 3 |
| Ancillary Courses |  | credits) | (p. 50) |  |  |
|  |  |  | Credits | 15-16 |
| BI-140 | Introduction to Organismal |  | 4 | Semester Two |  |  |
|  | Biology | BI-140 |  | Introduction to Organismal | 4 |
| BI-202 | Principles of Ecology | 4 |  | Biology |  |
| CH-120 | General Chemistry I | 4 | MA-190 | Pre-calculus ${ }^{1}$ | 4 |
| CH-121 | General Chemistry II | 4 | or MA-200 | or Calculus I |  |
| GS-165 | Geographic Information | 4 | EN-102 | College Writing II | 3 |
|  | Systems I |  | LASC | LASC Elective (CON) (p. 47) ${ }^{2}$ | 3 |
| $\begin{aligned} & \text { MA-150 } \\ & \quad \text { or MA-302 } \end{aligned}$ | Statistics I | 3 | LASC | LASC Elective (DIV) ${ }^{2}$ | 3 |
|  | Probability and Statistics |  | Credits |  | 17 |
| MA-190 or MA-200 | Pre-calculus | 4 | Year Two <br> Semester Three |  |  |
|  | Calculus I |  |  |  |  |
| PY-221 <br> or PY-241 | General Physics I | 4 | CH-120 | General Chemistry I | 4 |
|  | Physics I (Mechanics) |  | GS-165 | Geographic Information Systems I | 4 |
| Total Credits |  | 61-62 |  |  |  |
|  |  |  | GS-250 | Hydrology | 3 |
| ${ }^{1}$ Must include at least two 300 - or 400 -level courses and at least one lab course. No more than 5 credits may be from internship, independent study, and/ or independent research courses. Students may |  |  | LASC | LASC Elective (USW) (p. 60) | 3 |
|  |  |  | LASC | LASC Elective (HBS) (p. 53) ${ }^{2}$ | 3 |
|  |  |  |  | Credits | 17 |

than $\mathrm{BI}, \mathrm{CH}, \mathrm{EV}$, or GS towards their environmental science electives. A list of courses counting as electives will be made available prior to preregistration each semester.

Students in the Environmental Science major are not required to take LASC NSP or QR courses outside of the major. Students are required to meet with their department advisor to review their upcoming semester academic choices.

Department of Earth, Environment and Physics -
Environmental Science Major

## Sample Timeline for Completion of Degree

| Semester Four |  |  |
| :---: | :---: | :---: |
| CH-121 | General Chemistry II | 4 |
| $\begin{aligned} & \text { GS-225 } \\ & \text { or GS-260 } \end{aligned}$ | Oceanography or Introduction to Soil Science | 3 |
| BI-202 | Principles of Ecology | 4 |
| LASC | LASC Elective (ICW) (p. 55) ${ }^{2}$ | 3 |
| LASC | LASC Elective (GP) (p. 51) ${ }^{2}$ | 3 |
|  | Credits | 17 |
| Year Three |  |  |
| Semester Five |  |  |
| CS-135 | Programming for Non-CS | 3 |
|  | Majors |  |
| PY-221 | General Physics I | 4 |
| SELECT | BI-2XX, CH2XX, EV-2XX, or GS-2XX Major Elective ${ }^{3}$ | 3-4 |
| LASC | LASC Elective (CA) (p. 48) ${ }^{2}$ | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 16-17 |
| Semester Six |  |  |
| GE-258 | Global Environmental | 3 |
|  | Change |  |
| SELECT | BI-2XX, CH2XX, EV-2XX, or GS-2XX Major Elective ${ }^{3}$ | 3-4 |
| LASC | LASC Elective (TLC) (p.61) ${ }^{2}$ | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15-16 |
| Year Four |  |  |
| Semester Seven |  |  |
| SELECT | BI-3XX, CH-3XX, EV-3XX, or GS-3XX Major Elective ${ }^{3}$ | 3-4 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 9-10 |
| Semester Eight |  |  |
| EV-400 | Environmental Science <br> Seminar | 3 |
| SELECT | BI-3XX, CH-3XX, EV-3XX, or GS-3XX Major Elective ${ }^{3}$ | 3-4 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 12-13 |
|  | Total Credits | 118-123 |

[^2]${ }^{2}$ The sequence of LASC courses marked with ${ }^{2}$ is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.
${ }^{3}$ Students may count one environmental course with a prefix other than $\mathrm{BI}, \mathrm{CH}, \mathrm{EV}$, or GS towards their environmental science electives. A list of courses counting as electives will be made available prior to pre-registration each semester.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Environmental Science Minor

Requirements for Minor in Environmental Science (19-20 Credits)

| Code | Title | Credits |
| :--- | :--- | ---: |
| EV-150 | Environmental Science | 3 |
| GS-101 | Physical Geography | 3 |
| or GS-140 | Physical Geology |  |
| or GS-110 | Meteorology |  |
| BI-202 | Principles of Ecology | 4 |
| or GS-230 | Biogeography |  |
| GS-225 | Oceanography |  |
| or GS-250 | Hydrology | 3 |
| or GS-260 | Introduction to Soil Science |  |

Two EV electives: one 200 level or above, one 300 6-7
level or above. Minor must include a 200 level or above lab course

Total Credits

## Geography and Earth Sciences

## Department of Earth, Environment, and Physics

Geography is a science that examines physical and social processes and their interrelationships through the integrative concept of space. Earth
systems science analyzes the systems and processes that shape the earth's surface including weather, climate, landforms, and hydrology. Human geography analyzes social processes such as globalization, demographics, urbanization, and construction of cultural identities. Environmental geography examines the interactions between social and physical systems. Geographers explore these processes using such tools as maps, geographic information systems, and remote sensing techniques.

Membership in Gamma Theta Upsilon, the international geography honor society, is available to distinguished students. Prospective members must have completed a minimum of 3 geography or earth science courses, have a GPA of at least 3.3 overall in those courses, and have completed at least 3 semesters of college course work. A prospective member is not required to be a geography major or minor. Undergraduate Geography majors who have demonstrated academic excellence and an interest in Geographic research may participate in the Honors in Geography program

## Requirements for a Major

Minimum requirement for the major is completion of a six-course ( 18 credit) core curriculum and one of five concentrations. Students will declare a concentration in either General Geography, Environmental Studies, Geographic Information Systems, Earth System Science, or Earth Science Education. Study Away/Study Abroad is strongly encouraged for geography majors.

- Geography Honors Program (p. 248)
- Geography Major: Earth Science Education Concentration (p. 248)
- Geography Major. Earth System Science Concentration (p. 250)
- Geography Major. Environmental Studies Concentration (p. 251)
- Geography Major: General Geography Concentration (p. 253)
- Geography Major: Geographic Information Systems Concentration (p. 254)
- Geography Minor (p. 256)
- Geospatial Information Science Minor (p. 257)


## Faculty

Allison Dunn, Department Chair, Professor (2007), B.A., Oberlin College; M.A., Ph.D., Harvard University

William Hansen, Professor (2005), B.A., State
University of New York Albany; M.A., Hunter College;
Ph.D., City University of New York Graduate Center
Laura C. Reynolds, Assistant Professor (2020), B.A., Dartmouth College; Ph.D., University of California

Alexander R. Tarr, Associate Professor (2016), B.A., University of Southern California; Ph.D., University of California Berkley

## Courses

GE-102 Human Geography
LASC Categories: GP, HBS
Introduction to human geography, emphasizing globalization, human-environment relations, and spatial patterns of population, development, economics, politics, urbanization and culture. Fall and Spring and every year. 3 Credits

## GE-130 Introduction to Energy Studies

Foundation concepts in energy studies. Overview of environmental and societal implications of energy systems - past, present and future.
3 Credits
GE-193 Special Topics in Geography for First- Year Students
LASC Categories: FYS
Introductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
3 Credits

## GE-195 Special Topics

Introductory course to be offered on a trial basis.
Topic to be announced in advance.
1-6 Credits
GE-200 Geography Literature Seminar
Prerequisites: GE-102 and GS-101 and GS-140 and GS-165
Geography majors will attend research seminars, conduct literature searches; identify relevant primary literature; read and take notes on primary literature; compile annotated bibliographies; create written syntheses.
Fall only and every year. 1 Credit

## GE-214 Critical Cartographies: Digital Mapping and Spatial Data Visualization

Prerequisites: one course from the following: GE-102, GS-165, CM-100, CM-106, PO-130, SO-100, S0-193, SO-200, UR-101, UR-193, UR-201 GS-165.
This course introduces the fundamental theories, art and science of map making using web-based platforms. It provides an interdisciplinary approach for students to learn both practical and conceptual skills to collect, interpret and present data in the form of online, interactive maps and data visualizations. Every 2-3 years. 3 Credits

## GE-250 Urban Geography

LASC Categories: HBS
Prerequisites: GE-102 or GL/GE-102 or UR-101
World urbanization, location, and central place concepts, economy of cities, land use patterns, urban, physical, and societal environmental problems. Every 2-3 years. 3 Credits

## GE-255 Geography of Africa

LASC Categories: DAC, GP
Prerequisites: GE-102 or GE-111 or GL/GE-102 or GL/ GE-111 or GL-150 or SO-100 or SO-110 or UR-101 Analysis of the physical and human geography of Africa.
3 Credits
GE-258 Global Environmental Change
Prerequisites: GE-102 or GL/GE-102 or GS-101 or GL-150 or EV-150 or UR-101 or CH-106
An introduction to the science, political economy and ethics of global environmental change.
Every year. 3 Credits

## GE-285 Sustainable Communities

LASC Categories: HBS, USW
Prerequisites: GE-102 or GL/GE-102 or GL-150 or EC-110 or EC-120.
Exploration of changes in U.S. and global economic landscape, 1970 to present. Approaches to sustainable economic development.
Every 2-3 years. 3 Credits

## GE-299 Special Topics

Intermediate level course to be offered on a trial basis. Topic to be announced in advance. 1-6 Credits

## GE-307 American Public Lands: Environmental Issues

Prerequisites: GE-258 or permission of instructor. Exploration of the environmental management issues on U.S. public lands such as national parks, national forests BLM lands.
3 Credits

## GE-312 Sustainable Food Systems

Prerequisites: GE-102 or a 200 level GE, GS, SO or UR course.
Overview of the structure, evolution, costs and benefits of the global food system. Exploration of local and global alternatives.
Every 2-3 years. 3 Credits

## GE-342 Sustainable Housing And Techniques

Prerequisites: GE-130 or GE-240
Principles of green design with an emphasis on building construction. Material and energy flows, choice of materials, designing for sustainability. 3 Credits

## GE-360 Middle East: Changing Environ

The Middle East: geography, society, economics and political structure.
3 Credits
GE-400 Geography Seminar
LASC Categories: CAP
Prerequisites: GE-102, GS-101, GS-140, GS-216, and GE-212 or GE-315
Capstone course for geography majors. Students prepare a comprehensive term paper and present on the topic. Course includes portfolio and career development.
Fall and Spring and every year. 3 Credits

## GE-408 Directed Study: Geography

Directed study offers students the opportunity to complete an existing course with an established syllabus under the direction and with the agreement of a faculty member.
3 Credits

## GE-410 Independent Study: Geography

Opportunity for advanced students to pursue a topic of special interest involving extensive reading, experimentation, and research.
Every year. 1-6 Credits

## GE-420 Advanced Geoscience Research and Fieldwork

Lab and or field-based research on a specific geoscience topic under supervision of a faculty member. [Permission of instructor.]

## 1-6 Credits

## GE-450 Readings and Directed Research

Directed study on selected topics; open to senior majors.
3 Credits

## GE-460 Internship: Geography

Students assigned to various government and private agencies under joint supervision of agency and faculty. Major GPA of 3.0 or above required.
1-6 Credits
GE-470 Selected Topics: Geography
Prerequisites: GE-102 or GL/GE-102
Topic or subject to be announced in advance; topic to be relevant to student needs and interests and availability of professor. 1-6 Credits

## GS-101 Physical Geography

LASC Categories: NSP
Geographic principles of location; characteristics of landforms, soil, climate, minerals, water, flora, and fauna. [Formerly GE101.]
Fall and Spring and every year. 3 Credits

## GS-110 Meteorology

LASC Categories: NSP, QAC
Understanding the atmosphere and worldwide weather, Earth-Sun relationships, atmospheric humidity and precipitation, air pressure and winds, circulation of the atmosphere, climate change, air pollution, stratospheric ozone depletion, and extreme weather.
Fall and Spring and every year. 3 Credits

## GS-140 Physical Geology

LASC Categories: LAB, NSP, QAC
Introduction to geological science: rocks and minerals, internal and external geologic processes, topographic map and air photo analysis, local field study. Three hours lecture and two hours laboratory per week.
Fall and Spring and every year. 4 Credits

## GS-150 Humans and the Cold Regions

LASC Categories: NSP
Winter intersession. Examines earth's cold regions, including physical geography, cryosphere's role in earth systems, human adaptations. Includes outdoor activity.
3 Credits
GS-165 Geographic Information Systems I
LASC Categories: NSP, NLL
Introduction to the use of geospatial technologies including geographic information systems and GPS. Fall and Spring and every year. 4 Credits

GS-180 Field Geoscience
LASC Categories: NSP, LAB
Field Geoscience course for EEP majors as well as non-majors. Course explores the intersection of human activities and the Earth's landscape and processes, with a basic introduction to topics in geology, mapping and landscape analysis. Includes lecture, labs and field activities. Introductory lectures lab and field work on or near the Worcester State campus and then an overnight trip of 7-10 days. Other or on demand and every 2-3 years. 4 Credits

## GS-193 First Year Seminar in Geography

LASC Categories: FYS
Introductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
3 Credits

## GS-195 Special Topics

Introductory course to be offered on a trial basis.
Topic to be announced in advance.
1-6 Credits

## GS-210 Geomorphology

LASC Categories: NLL, QAC
Prerequisites: GS-101 or GS-140 and an accuplacer score of 3 or one college level Math course.
The study of landforms and the processes that form them. Labs focus on interpretation of maps and aerial photographs. Three hour lecture and two hour laboratory.
Every 2-3 years. 4 Credits

## GS-217 Spatial Data Methods

LASC Categories: QR
Prerequisites: GS-165
Introduction to the methods used in GIS
programming and quantitative geospatial analysis.
Every 2-3 years. 3 Credits

## GS-218 Introduction to Remote Sensing LASC Categories: NSP

Prerequisites: GS-101 or GS-140 or EV-150 or BI-101 or BI-140
Introduction to the use and analysis of remotely sensed images such as aerial photographs and satellite imagery.
Every 2-3 years. 3 Credits

## GS-225 Oceanography <br> LASC Categories: QAC

Prerequisites: GS-101 or GS-140 or GS-110 or EV-150
The principles of physical, chemical, biological, and geological oceanography.
Spring only and every year. 3 Credits

## GS-230 Biogeography

Prerequisites: GS-101 or GS-110 or $\mathrm{BI}-101$ or $\mathrm{BI}-140$ The distribution patterns of plants and animals, processes affecting this distribution, and how these patterns change in space and time.
Every 2-3 years. 3 Credits

## GS-235 Contemporary Climate Change

Prerequisites: GS-101 or GS-110 or EV-150 or CH-106.
The global climate system, factors influencing
climate, recent climate change and the role of human activity.
Every 2-3 years. 3 Credits

## GS-240 Coastal Environments

Prerequisites: GS-101 or GS-140
Summer session course examining the physical geography of coastal environments including human impacts. Includes field trips.
3 Credits

## GS-245 Planetary Geology

Prerequisites: GS-140 or PY-101
Solar system formation and evolution with emphasis on planetary interiors and surface features.
Every 2-3 years. 3 Credits
GS-250 Hydrology
Prerequisites: GS-101 or GS-140 or GS-110 or EV-150
Hydrologic processes, their estimation and measurement. Includes precipitation, evaporation, runoff, groundwater and water resources management.
Fall only and every year. 3 Credits

## GS-260 Introduction to Soil Science

Prerequisites: GS-101 or GS-140
The study of the formation, processes, classification and composition of soils with emphasis on environmental applications, including watershed delineation.
Every 2-3 years. 3 Credits

## GS-270 The Sedimentary Record

LASC Categories: NLL
Prerequisites: GS-140 and GS-101 or GS-110
Theoretical, laboratory, and field investigations of modern sedimentary processes, depositional environments, the sedimentary record of earth history, principals of stratigraphy. 3 hours lecture and 3 hours lab.
Every 2-3 years. 4 Credits

## GS-299 Special Topics

Intermediate level course to be offered on a trial basis. Topic to be announced in advance.

## 1-6 Credits

## GS-318 Geographic Information Systems II

Prerequisites: GS-165
Advanced production of digital choropleth maps on PCs using a GIS vector oriented software.
Every 2-3 years. 3 Credits

## GS-328 Digital Landscape Analysis

Prerequisites: GS 165 and one 200 level GS course.
Computer based methods of representing, storing and analyzing landscape features. Explores technologies such as LiDAR and Unmanned Aerial Vehicles for gathering landscape data and the use of geospatial tools to analyze and represent landscape features. 3 hours of lecture and 2 hours of lab.
Every 2-3 years. 4 Credits

## GS-335 Hydrogeology

Prerequisites: GS-140 or GS-250 and a math placement test score of 3 , or a college level math course.
Underground water and its movement. Aquifer identification and test; wells, contamination and remediation, ground water as a geologic agent. Fall only and other or on demand. 3 Credits

## GS-338 Atmospheric Sciences

Prerequisites: \# GS-101 \# Take CH-120 or CH-112; Atmospheric Science introduces students to the physics and chemistry of the atmosphere, and examines the science behind current issues such as global climate change, air pollution, and reductions in stratospheric ozone. Atmospheric physics includes both weather (clouds, rain, winds) and climate (weather averaged over longer timescales, as well as trends in climate over time). Atmospheric chemistry investigates processes controlling the chemical composition of the atmosphere, including related processes in the and biosphere, as well as anthropogenic pollution (smog, stratospheric ozone loss, etc.)
Every 2-3 years. 3 Credits
GS-340 Special Topics: Advanced Earth Science
Advanced course to be offered on a trial basis. Topic to be announced in advance.
1-6 Credits
GS-348 Fundamentals of Earth Data Analytics LASC Categories: NSP, QR, QAC
Prerequisites: GS-101 Take 1 course; From Subjects GS; From Levels 200;
The theory and practice of data analytics using remote sensing and in-situ earth observations, and communicating the science.
Fall only and every year. 4 Credits

## GS-370 Lakes \& Environmental Change <br> LASC Categories: WAC, NLL

Prerequisites: GS-140 Take one earth science course at the 200-level or above.
Modern physical, biogeochemical, and sedimentary processes in lakes. Lake sediments as archives of past climate and environmental change. Includes fieldwork.
Every 2-3 years. 4 Credits

## GS-380 Advanced Field Geoscience

LASC Categories: NLL
Prerequisites: GS 140 and one other 200 level GS course.
Field Geoscience course for EEP majors. Course explores the intersection of human activities and the Earth's landscape and processes examining advanced topics in geology, mapping and landscape analysis. Includes lecture, labs and field activities. Introductory lectures lab and field work on or near the Worcester State campus and then an overnight trip to field sites, 1-10 days depending on the number of credits.
Other or on demand and every 2-3 years. 1-4 Credits
GS-400 Senior Seminar
LASC Categories: CAP
Prerequisites: GE-102 GS-101 GS-140 GS-165 and GE-200 and senior standing
Capstone course for geography majors. Students prepare a comprehensive term paper and present on the topic. Course includes portfolio and career development.
Fall and Spring and every year. 3 Credits
GS-408 Directed Study: Earth Science Or Geoscience Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Other or on demand and every year. 1-4 Credits
GS-410 Independent Study: Earth ScienceGeoscience
Opportunity for advanced students to pursue an earth science or geoscience topic of special interest involving extensive reading, experimentation, and research.
Fall and Spring and every year. 1-4 Credits
GS-420 Advanced Geoscience Research and Fieldwork
Lab and or field-based research on a specific geoscience topic under supervision of a faculty member. [Permission of instructor.]
1-6 Credits
GS-450 Readings and Directed Research
Directed study on selected topics; open to senior majors.
3 Credits

## GS-460 Internship: Geography

Students assigned to various government and private agencies under joint supervision of agency and faculty. Major GPA of 3.0 or above required. Other or on demand. 1-6 Credits

## GS-470 Selected Topics: Geography

Prerequisites: GS-101 and one course from GS-210, GS-225, GS-230, GS-235, GS-250, GS-260, GS-290 or GS-310
Topic or subject to be announced in advance; topic to be relevant to student needs and interests and availability of professor.
1-6 Credits

## Program Learning Outcomes

- Demonstrate a command of geographic terminology and fundamental concepts
- Apply the scientific method to analyze and address geographic problems
- Communicate geographic data and concepts
- Locate, evaluate, and utilize various information sources and data
- Demonstrate an understanding of Earth and society as a set of interconnected, dynamic physical and human systems
- Obtain entry level employment and/or gain admission into graduate school


## Geography Honors Program

The Geography Honors Program is intended for outstanding majors interested in research as well as those who plan to pursue an advanced degree. Honors students will complete an original research project, defend the project before an approved review committee, and present the project in at least one venue external to WSU. Applicants should have completed the geography core courses through GE-200 and have 75 credits overall.

Applicants should have a 3.5 GPA in the major although students with a 3.0 major GPA and a faculty sponsor may petition for admission. Application materials are available from the department chair.

## Geography Major: Earth Science Education Concentration

## Requirements for a Major

Minimum requirement for the major is completion of a six-course ( 18 credit) core curriculum and one of five concentrations. Students will declare a concentration in either General Geography, Environmental Studies, Geographic Information Systems, Earth System Science, or Earth Science Education. Study Away/Study Abroad is strongly encouraged for geography majors.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Core Courses |  | (18 |
|  |  | credits) |
| GS-101 | Physical Geography | 3 |
| or GS-110 | Meteorology |  |
| GE-102 | Human Geography | 3 |
| GS-140 | Physical Geology | 4 |
| GS-165 | Geographic Information | 4 |
|  | Systems I |  |
| GE-200 | Geography Literature | 1 |
|  | Seminar |  |
| GE/GS-400 | Geography Seminar | 3 |
| Requirements for the Concentration in Earth Science Education |  | (48 |
|  |  | credits) |
| Ancillary requirements (may apply to LASC requirements) |  |  |


| MA-190 | Pre-calculus (or any MA <br> course at 200 level or above) | 4 |
| :--- | :--- | :--- |
| BI-140 | Introduction to Organismal <br> Biology | 4 |
| BI-202 | Principles of Ecology | 4 |
| PY-101 | Introduction to Astronomy | 3 |
| Select one of the following: | 8 |  |


| PY-221 | General Physics I |
| :--- | :--- |
| \& PY-222 | and General Physics II (8) |
| PY-241 | Physics I (Mechanics) |
| \& PY-242 | and Physics II (Electricity, <br>  |
|  |  |


| Required courses |  | 3 |
| :--- | :--- | :--- |
| GS-110 | Meteorology | 3 |
| GS-225 | Oceanography | 3 |
| GS-250 | Hydrology | 4 |
| GS-270 | The Sedimentary Record |  |



## Geography Major: Earth Science Education concentration <br> Sample Timeline for Completion of Degree

| Year One |  | Credits |
| :--- | :--- | ---: |
| Semester One |  | 3 |
| LASC | First-Year Seminar (p. 50) | 3 |
| EN-101 | College Writing I | 3 |
| LASC | LASC Elective (TLC) (p. 61) ${ }^{1}$ | 3 |
| PY-101 | Introduction to Astronomy | 3 |
| GS-101 | Physical Geography | 3 |
|  | Credits | $\mathbf{1 5}$ |

Semester Two

| EN-102 | College Writing II | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| GS-165 | Geographic Information | 4 |
|  | Systems I |  |
| GE-102 | Human Geography | 3 |
| GS-140 | Physical Geology | 4 |
|  | Credits | $\mathbf{1 7}$ |


| Year Two |  |  |
| :---: | :---: | :---: |
| Semester Three |  |  |
| GS-110 | Meteorology | 3 |
| GS-230 | Biogeography | 3 |
| BI-140 | Introduction to Organismal Biology (NSP/Lab) | 4 |
| PY-250 | Observational Astronomy | 3 |
| LASC | LASC Elective (CA) (p. 48) ${ }^{1}$ | 3 |
|  | Credits | 16 |
| Semester Four |  |  |
| GS-210 | Geomorphology | 4 |
| GS-225 | Oceanography | 3 |
| MA-180 | Introduction to Functions (if needed; or take $\mathrm{BI}-202$ ) | 3 |
| LASC | LASC Elective (USW) (p. 60) 1 | 3 |
| LASC | LASC Elective (GP) (p. 51) ${ }^{1}$ | 3 |
|  | Credits | 16 |

## Year Three

Semester Five

| GE-200 | Geography Literature <br> Seminar | 1 |
| :--- | :--- | ---: |
| GS-250 | Hydrology | 3 |
| MA-190 | Pre-calculus | 4 |
| PY-221 <br> or PY-241 | General Physics I (NSP) <br> or Physics I (Mechanics) | 4 |
| LASC | LASC Elective (ICW) (p. 55) ${ }^{1}$ | 3 |
|  | Credits | $\mathbf{1 5}$ |

Semester Six

| GS 2XX+ | Earth Science Elective | 3 |
| :--- | :--- | :--- |
| CH-112 | Survey of Chemistry | 4 |
| PY-222 | General Physics II | 4 |


| or PY-242 | or Physics II (Electricity, <br> Magnetism and Optics) |
| :--- | :--- | ---: |
|  | Principles of Ecology |

## Year Four

## Semester Seven

| GS $2 \mathrm{xx}+$ | Earth Science Elective | 3 |
| :--- | :--- | ---: |
| GS $3 \mathrm{xx}+$ | Earth Science Elective | 3 |
| GS-270 | The Sedimentary Record | 4 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 6}$ |

## Semester Eight

| GE-400 | Geography Seminar | 3 |
| :--- | :--- | ---: |
| GS 2xx+ | Earth Science Elective | 3 |
| LASC | LASC Elective $(\mathrm{p} .46)^{1}$ | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
|  | Total Credits | $\mathbf{1 2 8}$ |

${ }^{1}$ The sequence of LASC courses marked with ${ }^{1}$ is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/
major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Geography Major: Earth System Science Concentration

## Requirements for a Major

Minimum requirement for the major is completion of a six-course ( 18 credit) core curriculum and one of five concentrations. Students will declare a concentration in either General Geography, Environmental Studies, Geographic Information Systems, Earth System Science, or Earth Science Education. Study Away/Study Abroad is strongly encouraged for geography majors.

| Code | Title | Credits |
| :--- | ---: | ---: |
| Core Courses |  | $(18$ |
|  |  | credits) |


| GS-101 | Physical Geography | 3 |
| :---: | :---: | :---: |
| or GS-110 | Meteorology |  |
| GE-102 | Human Geography | 3 |
| GS-140 | Physical Geology | 4 |
| GS-165 | Geographic Information Systems I | 4 |
| GE-200 | Geography Literature Seminar | 1 |
| GE/GS-400 | Geography Seminar | 3 |

Requirements for the Concentration in Earth (32

System Science $\quad$| credits) |
| ---: |

Ancillary requirements (may apply to LASC
requirements)

| MA-190 | Pre-calculus | 4 |
| :--- | :--- | ---: |
| Select one of the following: | 4 |  |
| CH-112 | Survey of Chemistry |  |
| CH-120 | General Chemistry I |  |
| PY-221 | General Physics I |  |
| PY-241 | Physics I (Mechanics) |  |


| Required core courses |  |  |
| :--- | :--- | :--- |
| GS-210 | Geomorphology | 4 |
| GS-225 | Oceanography | 3 |
| GS-230 | Biogeography | 3 |
| Core electives |  |  |

14 upper level credits at the $200+$ level, including 14 3 earth science credits at the $300+$ level. No more than one geography (GE) or Geospatial course can be counted toward this requirement.

## Total Credits

## Geography Major: Earth System Science Concentration Sample Timeline for Completion of Degree

## Year One

| Semester One | Credits |  |
| :--- | :--- | ---: |
| LASC | First-Year Seminar (p. 50) | 3 |
| EN-101 | College Writing I | 3 |
| LASC | LASC Elective (GP) (p. 51) ${ }^{1}$ | 3 |
| GE-102 | Human Geography | 3 |
| GS-101 | Physical Geography | 3 |
|  | Credits | 15 |
| Semester Two |  |  |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| MA-190 | Pre-calculus | 4 |
| LASC | LASC Elective (TLC) (p. 61) ${ }^{1}$ | 3 |
| GS-140 | Physical Geology | 4 |
|  | Credits | $\mathbf{1 7}$ |

## Year Two

Semester Three

| GS-165 | Geographic Information <br> Systems I | 4 |
| :--- | :--- | :--- |
| GS-210 | Geomorphology | 4 |
| Select one of the following LASC courses: ${ }^{1}$ | 4 |  |


| CH-120 | General Chemistry I |  |
| :---: | :--- | ---: |
| PY-221 | General Physics I (NSP LAB) |  |
| PY-241 | Physics I (Mechanics) |  |
| GE-200 | Geography Literature | 1 |
|  | Seminar |  |
| LASC | LASC Elective (CA) (p. 48) $^{1}$ | 3 |
|  | Credits | $\mathbf{1 6}$ |


| Semester Four |  |  |
| :--- | :--- | ---: |
| GS-225 | Oceanography | 3 |
| GS-230 | Biogeography | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | 1 |  |
| LASC | ${\text { LASC Elective }(\text { HBS })(\text { p. 53 })^{1}}^{1}$ | 3 |
| LASC | LASC Elective $\left(\right.$ p. 46) $^{1}$ | 4 |
|  | Credits | $\mathbf{1 6}$ |



| GE/GS-460 | Internship: Geography |
| :--- | :--- |
| GE-410/GS-460 | Independent Study: <br> Geography |
| GE/GS-450 | Readings and Directed <br> Research |
| Total Credits |  |

## Geography Major: Environmental Studies Concentration Sample Timeline for Completion of Degree

| Year One |  |  |
| :--- | :--- | ---: |
| Semester One |  | Credits |
| LASC | First-Year Seminar (FYS) | 3 |
|  | (p. 50) | 3 |
| EN-101 | College Writing I | 3 |
| LASC | LASC Elective (QR) (p. 59) | 3 |
| GE-102 | Human Geography | 3 |
| GS-101 | Physical Geography | $\mathbf{1 5}$ |
|  | Credits |  |


| Semester Two |  |  |
| :--- | :--- | ---: |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| LASC | LASC Elective (GP) (p. 51) ${ }^{1}$ | 3 |
| GS-140 | Physical Geology | 4 |
|  | Credits | $\mathbf{1 6}$ |


| Year Two |  |  |
| :---: | :---: | :---: |
| Semester Three |  |  |
| GS-165 | Geographic Information Systems I | 4 |
| GE | Environmental Elective | 3 |
| GE or GS | Environmental or Physical Elective | 3 |
| GE-200 | Geography Literature Seminar | 1 |
| LASC | LASC Elective (ICW) (p. 55) ${ }^{1}$ | 3 |
| LASC | LASC Elective (CA) (p. 48) ${ }^{1}$ | 3 |
|  | Credits | 17 |


| Semester Four |  |  |
| :--- | :--- | ---: |
| GE-258 | Global Environmental <br> Change | 3 |
| GS | Physical or GIS Elective | 3 |
| LASC | Lab Science (NSP) $\left(\right.$ p. 58) ${ }^{1}$ | $3-4$ |
| LASC | LASC Elective (USW) $($ p. 60) | 3 |


| LASC | LASC Elective $(\mathrm{p} .46)^{1}$ | 3 |
| :--- | :--- | ---: |
| Credits | $\mathbf{1 5 - 1 6}$ |  |

Year Three
Semester Five

| LASC | LASC Elective (HBS) (p. 53) |  |
| :--- | :--- | ---: |
| GE | Environmental Elective | 3 |
| LASC | LASC Elective $(\mathrm{QR})(\mathrm{p.59})^{1}$ | 3 |
| LASC | LASC Elective $\left(\right.$ p. 46) $^{1}$ | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 2}$ |

Semester Six

|  | Physical or GIS Elective | 3 |
| :--- | :--- | ---: |
| GS | Environmental Elective | 3 |
| GE | LASC Elective (NSP) (p. 58) ${ }^{1}$ | 3 |
| LASC | LASC Elective $(\mathrm{p} .46)^{1}$ | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Year Four |  |  |
| Semester Seven |  | 4 |
| Select one of the following: |  |  |


| GE-410 | Independent Study: <br> or GS-410 <br> Geography <br> or Independent Study. <br> Geography |
| :---: | :--- |
| GE-450 | Readings and Directed <br> or GS-450 <br> Research <br> or Readings and Directed <br> Research |

GE-460 Internship: Geography or GS-460 or Internship: Geography

| SELECT | General Elective | 3 |
| :--- | :--- | ---: |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 6}$ |


| Semester Eight |  |  |
| :--- | :--- | ---: |
| GE-400 | Geography Seminar (CAP) | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
|  | Total Credits | $\mathbf{1 2 1 - 1 2 2}$ |

${ }^{1}$ The sequence of LASC courses marked with ${ }^{1}$ is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Geography Major: General Geography Concentration Requirements for a Major

Minimum requirement for the major is completion of a six-course ( 18 credit) core curriculum and one of five concentrations. Students will declare a concentration in either General Geography, Environmental Studies, Geographic Information Systems, Earth System Science, or Earth Science Education. Study Away/Study Abroad is strongly encouraged for geography majors.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Core Courses |  | $\begin{array}{r} (18 \\ \text { credits) } \end{array}$ |
| $\begin{aligned} & \text { GS-101 } \\ & \text { or GS-110 } \end{aligned}$ | Physical Geography <br> Meteorology | 3 |
| GE-102 | Human Geography | 3 |
| GS-140 | Physical Geology | 4 |
| GS-165 | Geographic Information Systems I | 4 |
| GE-200 | Geography Literature Seminar | 1 |
| GE/GS-400 | Geography Seminar | 3 |
| Requirements for the Concentration in General Geography |  | $\begin{array}{r} (15 \\ \text { credits) } \end{array}$ |
| At least one advanced course (200-400 level) in each of the following: |  |  |
| Physical Geography (200-400 Level) |  | 3 |
| Human Geography (200-400 Level) |  | 3 |
| Three advanced courses in any category |  | 9 |
| Total Credits |  | 33 |

# Geography Major: General Geography Concentration ${ }^{1}$ Sample Timeline for Completion of Degree 

Year One

| Semester One |  | Credits |
| :--- | :--- | ---: |
| LASC | First-Year Seminar (p. 50) | 3 |
| EN-101 | College Writing I | 3 |
| LASC | LASC Elective (QR) (p. 59) |  |
| GE-102 | Human Geography | 3 |
| GS-101 | Physical Geography | 3 |
|  | Credits | $\mathbf{1 2}$ |

Semester Two

| EN-102 | College Writing II | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| LASC | LASC Elective (TLC) (p. 61) ${ }^{2}$ | 3 |
| LASC | LASC Elective (GP) (p. 51) ${ }^{2}$ | 3 |
| GS-140 | Physical Geology | 4 |
|  | Credits | $\mathbf{1 6}$ |

Year Two
Semester Three

| GS-165 | Geographic Information Systems I | 4 |
| :---: | :---: | :---: |
| GS/GE | Elective (200 level or above) | 3 |
| LASC | LASC Elective (HBS) (p. 53) ${ }^{2}$ | 3 |
| LASC | LASC Elective (ICW) (p. 55) ${ }^{2}$ | 3 |
| LASC | LASC Elective (CA) (p. 48) ${ }^{2}$ | 3 |
| GE-200 | Geography Literature Seminar | 1 |
|  | Credits | 17 |
| Semester Four |  |  |
| GS/GE | Elective (200 level or above) | 3 |
| LASC | LASC Elective (NSP) (p. 58) ${ }^{2}$ | 3-4 |
| LASC | LASC Elective (QR) (p.59) ${ }^{2}$ | 3 |
| LASC | ${ }_{2}^{\text {LASC Elective (USW) (p. 60) }}$ | 3 |
| LASC | LASC Elective (p. 46) ${ }^{2}$ | 3 |
|  | Credits | 15-16 |
| Year Three |  |  |
| Semester Five |  |  |
| GS/GE | Elective (200 level or above) | 3 |
| GS/GE | Elective (200 level or above) | 3 |
| LASC | LASC Elective (NSP) (p. 58) ${ }^{2}$ | 3-4 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15-16 |


| Semester Six |  |  |
| :---: | :---: | :---: |
| GS/GE | Elective (200 level or above) | 3 |
| LASC | LASC Elective (p. 46) ${ }^{2}$ | 3 |
| LASC | LASC Elective (p. 46) ${ }^{2}$ | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
| Year Four |  |  |
| Semester Seven |  |  |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
| Semester Eight |  |  |
| $\begin{aligned} & \text { GE-400 } \\ & \quad \text { or GS-400 } \end{aligned}$ | Geography Seminar or Senior Seminar | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
|  | Total Credits |  |

${ }^{1}$ Students in this concentration typically have a second major, often education. For those students, many of the "general electives" would represent the second major and timing of LASC requirements may change.
${ }^{2}$ The sequence of LASC courses marked with ${ }^{2}$ is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Geography Major: Geographic Information Systems Concentration <br> Requirements for a Major

Minimum requirement for the major is completion of a six-course ( 18 credit) core curriculum and one of five concentrations. Students will declare a concentration in either General Geography, Environmental Studies, Geographic Information Systems, Earth System Science, or Earth Science Education. Study Away/Study Abroad is strongly encouraged for geography majors.
Code Title Credits

Ancillary Requirements

| To be taken by the time the student has <br> accumulated 21 credits in the major. |  |
| :--- | ---: |
| CS-135 | Programming for Non-CS <br> Majors |
| MA-150 | Statistics I |
| Code | Title |
| Core Courses |  |
|  | Credits |
| $(18$ |  |


| $\begin{aligned} & \text { GS-101 } \\ & \text { or GS-110 } \end{aligned}$ | Physical Geography Meteorology | 3 |
| :---: | :---: | :---: |
| GE-102 | Human Geography | 3 |
| GS-140 | Physical Geology | 4 |
| GS-165 | Geographic Information Systems I | 4 |
| GE-200 | Geography Literature Seminar | 1 |
| GE/GS-400 | Geography Seminar | 3 |
| Requirements Geographic Info | he Concentration in ation Systems (GIS) | $\begin{array}{r} (21 \\ \text { credits) } \end{array}$ |
| GS-218 | Introduction to Remote Sensing | 3 |
| GS-318 | Geographic Information Systems II | 3 |
| Three Additional Courses |  |  |
| 4 courses at the 200-400 level in either physical or human Geography. Students are encouraged to focus on one area. Regional courses are not appropriate |  | 12 |
| Select one of the following: |  | 3 |
| GS/GE-410 | Independent Study. Geography |  |


| GS/GE-450 | Readings and Directed <br> Research |
| :--- | :--- |
| GS/GE-460 | Internship: Geography |


| Year One |  | Credits |
| :--- | :--- | ---: |
| Semester One |  | 3 |
| LASC | First-Year Seminar (FYS) <br> $(\mathrm{p} .50)$ | 3 |
| EN-101 | College Writing I | 3 |
| MA-150 | Statistics I | 3 |
| GE-102 | Human Geography | 3 |
| GS-101 | Physical Geography | $\mathbf{1 5}$ |


| Semester Two |  |  |
| :--- | :--- | ---: |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| LASC | LASC Elective (TLC) (p. 61) ${ }^{1}$ | 3 |
| GS-165 | Geographic Information | 4 |
|  | Systems I |  |
| GS-140 | Physical Geology | 4 |
|  | Credits | $\mathbf{1 7}$ |


| Year Two |  |  |
| :--- | :--- | ---: |
| Semester Three |  |  |
| GS-218 | Introduction to Remote <br> Sensing | 3 |
| CS-135 | Programming for Non-CS <br> Majors (QR) | 3 |
| LASC | LASC Elective (NSP) (p. 58) ${ }^{1}$ | $3-4$ |
| LASC | LASC Elective (CA) (p. 48) ${ }^{1}$ | 3 |
| LASC | LASC Elective (HBS) (p. 53) ${ }^{1}$ | 3 |
|  | Credits | $\mathbf{1 5 - 1 6}$ |


| Semester Four | Geographic Information <br> GS-318 |  |
| :--- | :--- | :--- |
| Systems II | 3 |  |
| GS/GE 2XX+ | Elective | 3 |
| LASC | LASC Elective (ICW) (p. 55) ${ }^{1}$ | 3 |
| LASC | LASC Elective (GP) (p. 51) ${ }^{1}$ | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | 1 | Credits |

## Year Three

Semester Five

| GE-200 | Geography Literature | 1 |
| :--- | :--- | ---: |
| Seminar |  |  |$\quad$|  |  |
| :--- | ---: |
| GS/GE 2XX+ | Elective |
| GS/GE 2XX+ | Elective |
| LASC | LASC Elective (NSP) (p. 58) ${ }^{1}$ |
| LASC | LASC Elective (p. 46) ${ }^{1}$ |
| SELECT | General Elective |
|  | Credits |

## Semester Six

| GS/GE $2 X X+$ | Elective | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective $($ p. 46) |  |
|  | 1 | 3 |
| LASC | LASC Elective $($ p. 46) | 1 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 3 |

Year Four

## Semester Seven

Select one of the following: 3

| GE-410 | Independent Study: <br> or GS-410 <br> Geography <br> or Independent Study: <br> Geography |
| :---: | :--- |
| GE-450 | Readings and Directed <br> or GS-450 <br> Research <br> or Readings and Directed <br> Research |

GE-460 Internship: Geography or GS-460 or Internship: Geography

| SELECT | General Elective | 3 |
| :--- | :--- | ---: |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

Semester Eight

| GS-400 | Senior Seminar (CAP) | 3 |
| :--- | :--- | ---: |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
|  | Total Credits | $\mathbf{1 2 3 - 1 2 4}$ |

${ }^{1}$ The sequence of LASC courses marked with ${ }^{1}$ is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Geography Minor

## Requirements for the Geography Minor

| Code | Title | Credits |
| :--- | :--- | ---: |
| GS-101 | Physical Geography | 3 |
| GE-102 | Human Geography | 3 |
| GS-165 | Geographic Information <br> Systems I | 4 |
| Three electives, 200 level or above, one of which |  |  |
| must be at the 300 or 400 level. | 9 |  |
| Total Credits | 19 |  |

## Geospatial Information Science Minor

## Requirements for a Minor in Geospatial Information Science

| Code | Title | Credits |
| :---: | :---: | :---: |
| Required Courses |  | 7 |
| GE-102 or UR-101 | Human Geography Introduction to Urban Studies | 3 |
| GS-165 | Geographic Information Systems I | 4 |
| Elective Courses (choose four, including at least one course at the 300 level or higher) |  | 12-13 |
| GS-217 | Spatial Data Methods | 3 |
| GS-218 | Introduction to Remote Sensing | 3 |
| GS-318 | Geographic Information Systems II | 3 |
| GS-328 | Digital Landscape Analysis | 4 |
| GS-348 | Fundamentals of Earth Data Analytics | 4 |
| GS-410 | Independent Study: <br> Geography (\& GE-410 OR <br> GS-460 \& GE-460) | 3 |
| Total Credits |  | 19-20 |
| Code | Title | Credits |

## Health Sciences

## Department of Health Sciences

The Department of Health Sciences offers the following programs in health: 1) Bachelor of Science in Public Health; with an option of a concentration in Health Education. Students with the concentration can pursue a minor in secondary Education; and 2) a dual-degree Bachelor of Science in Public Health with a Bachelor of Science in Nursing at the Massachusetts College of Pharmacy and Health Sciences University.

Major courses provide basic knowledge and practice skills that prepare students to pursue careers in a variety of public health related professions. Membership in a national health honor society, Eta Sigma Gamma, is available to students who maintain a minimum 3.0 average.

All health courses in the major, minor, and concentration require a minimum grade of 2.0. Courses may not be taken pass/fail; courses may be repeated. Required ancillary courses must average an overall minimum of 2.0. In the Public Health/PreNursing program. Students must receive a minimum grade of $C$ in each course.

Students in this department may major or minor in public health. No student may do both.

Public Health graduates who pursued the Health Education Concentration are eligible to take the Certified Health Education Specialist exam (CHES) administered by the National Commission for Health Education Credentialling (NCHEC).

- Public Health - Pre-Nursing Program (p. 263)
- Public Health Major (p. 265)
- Public Health Major, Concentration in Health Education (p. 269)
- Public Health Minor (p. 269)


## Faculty

Mariana Calle, Professor (2012), B.S., University of Buenos Aires, Argentina; M.S., Ph.D., University of Connecticut

Elinor Fondell, Assistant Professor (2021), B.S., Stockholm University; Ph.D., Karolinska Institutet, Stockholm, Sweden

Syamak Moattari, Department Chair, Associate Professor (2015), M.D., Shahid Beheshti Medical University; Ph.D., Boston University

Andrew J. Piazza, Associate Professor (2017), B.S., M.S., University of Florida; Ph.D., University of Alabama

Jaime F. Vallejos, Associate Professor (2017), B.S., M.D., University of Nicaragua; M.P.H., University of Massachusetts Amherst

## Courses

## HC-201 Introduction to Public Health

This course is an overview and will focus on populations, prevention, and the evidence-based practice of public health.
Every year. 3 Credits
HC-202 Introduction to Global Health
LASC Categories: GP, ICW, DIV, DAC
The course introduces students to the main concepts of public health and the critical links between public health and social and economic development. Students get an overview of the determinants of health, how health status is measured, and the influences of various factors, including cultural, historic, geographic, social, economic, and political issues on the health of individuals and communities. The course also introduces students to key concerns regarding nutrition, reproductive health, infectious disease, and chronic diseases. The course will be global in coverage but with an important focus on the developing world and on the health of the poor.
Fall and Spring and every year. 3 Credits
HC-203 Introduction to Epidemiology
LASC Categories: ICW, NSP, QAC, GP
Prerequisites: any Math course and HC-201.
Basic epidemiologic concepts are covered and application of concepts to everyday problems; e.g., hazards in food supplies and risks associated with lifestyle.
Every year. 3 Credits

## HC-220 Health Policy

Prerequisites: HE-100
Examination of the process and factors that influence formulation, implementation and modification of health policy in the United States. Fall and Spring and every year. 3 Credits

## HC-228 Health Ethics

Prerequisites: HE-100 or HC-201
Ethical issues in health including genetic research, euthanasia, medical intervention and reproductive technologies as well as professional ethics.
Fall and Spring and every year. 3 Credits

## HC-234 Multiculturalism and Health

Examination of diverse ethnic/racial and cultural beliefs beliefs and practices affecting health and illness
Spring only and every year. 3 Credits

## HC-245 Introduction to Public Health Research

 Prerequisites: EN-252This course introduces students to health sciences research. Students will develop critical skills including effectively navigating and interpreting information, distinguishing between high quality and low quality sources of evidence. Students will gain an understanding of the importance of staying actively informed of current events relevant to public health and how informed public health professionals can seek out high quality news on public health as well as discern effective from misleading news relevant to public health policy. Students also will spend extensive time exploring the difference between information found on internet searches and social media versus reliable health agency information. Spring only and every year. 3 Credits

## HC-338 Peer Education Training

## Prerequisites: HE-100

Emphasis on student development of practical skills to implement programming centered on peer education programs and focused on preventative health.
Other or on demand. 3 Credits

## HC-340 Global Perspective in Public Health <br> LASC Categories: GP, ICW

Seminar course for students accepted into a global service learning trip during the academic year. It is designed to prepare students through curriculumbased learning, the components of service learning; ethical partnering with vulnerable communities, and the cultural/historical/political and economic factors that impact health and healthcare policies within the population where immersion takes places. There will be self-reflection and integration of learning through journal writing, critical thinking and exercises formal preparation for service in the host country and final paper at the end of the semester.
Other or on demand and every year. 3 Credits
HC-345 Introduction to the U.S. Health Care System Prerequisites: HC-201
This course is an overview of the U.S. health care system (USHCS) and its components. Subjects to be reviewed include how social determinants of health influence access to health care and the role of healthcare providers and their effect in the health care system. The history of USHCS, the financing of services, types of services offered as well as access and quality of these services. Understanding these topics will help formulate an understanding of how the USHCS functions and the factors involved in the delivery of healthcare services.
Fall only and every year. 3 Credits

## HC-350 Group Process

Prerequisites: HE-100
A didactic and experiential examination of various theories of group dynamics and their application to the facilitation of health-related groups. Research paper.
Fall and Spring and every year. 3 Credits
HC-403 Department Workshop:Community Health
The subject matter of this course will be reflective of the changing issues within the field of community health.
Other or on demand. 3 Credits

## HC-408 Directed Study: Public Health

Directed study offers students who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

HC-415 Community Health Planning and Promotion
Prerequisites: 4 courses in the major at 200 level or above.
Emphasis on community analysis; defining and verifying community health problems and establishing goals and objectives. Research paper. Fall and Spring and every year. 3 Credits

## HC-425 Research Seminar

LASC Categories: CAP, WAC
Prerequisites: $\mathrm{HC}-228$ or $\mathrm{PH}-131, \mathrm{HC} 203$ and one of the following MA-150, PS-275 or SO-275.
Students will be required to produce a proposal for a research study based on a community public health issue.
Every year. 3 Credits
HC-430 Health Promotion Program Implementation \& Evaluation
Prerequisites: $\mathrm{HC}-245$ and $\mathrm{HC}-415$
The success of a well-planned health promotion program depends on effective implementation and evaluation procedures. This course will review the process of program planning and explore implementation and evaluation strategies. This course will equip students to collect, analyze, interpret, and disseminate evidence of a program's effectiveness to relevant stakeholders. The course will culminate with a written evaluation plan and mock poster presentation delivered to an audience of peers.
Fall and Spring and every year. 3 Credits
HC-445 Pre-Practicum Seminar Prerequisites or Corequisite: HC-415
Discussion of career opportunities in the public health field, professional development, and graduate coursework in the health sciences field. This mandatory class should be taken the semester before registering for the practicum.
Fall and Spring and every year. 1 Credit
HC-450 Practicum: Community Health
LASC Categories: CAP, WAC
Prerequisites: 24 credits in HE/HC courses and EN-102
Field experience in which students will select a community health speciality area and spend a semester pursuing their goal through participation. See HE 440 Practicum in Health.
Every year. 3-6 Credits

## HE-100 Personal Health <br> LASC Categories: ICW

Physical, mental, and emotional aspects of well-being
and how to maintain and increase the quality of one's lifestyle.
Fall and Spring and every year. 3 Credits

## HE-120 Health and Nutrition

LASC Categories: ICW
Nutritional needs, weight control, healthy diets, myths, and nutritional aids to better health.
Fall and Spring and every year. 3 Credits
HE-140 Creative Arts and Health
LASC Categories: CA
An experiential and didactic introduction to the separate arts therapies: movement, art, music and language arts, emphasizing the creative process.
Every year. 3 Credits

## HE-150 Health and Physical Education for the

 TeacherThe planning, development, implementation and evaluation of comprehensive health education programs.
Every year. 3 Credits

## HE-170 Humans in Motion

Concepts of the human neuro-musculoskeletal system which provide function and health across the life span under normal and stress conditions. Every year. 3 Credits

HE-193 First Year Seminar Health
LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
3 Credits

## HE-200 Consumer Health

Current information and guidelines to reliable sources necessary to develop intelligent consumers capable of wisely selecting health products and services. Fall and Spring and every year. 3 Credits

HE-205 Principles \& Foundations of Health Promotion
This course serves as an introduction to the field of health education/promotion with consideration of philosophies, current trends, issues, and opportunities in the field.
Spring only and every year. 3 Credits

HE-208 Systems of Addictions Treatment Prerequisites: HE-285 or CJ-285
This course provides an overview of counseling modalities and techniques used in addiction treatment and recovery settings, including for those with co-occurring disorders. A family systems approach will be employed to understand how the Criminal Justice System, the Mental Health System, and the larger community relate. Legal and regulatory restrictions, ethical codes, and legal sanctions also are discussed.
Fall and Spring and every year. 3 Credits

## HE-210 Women's Health Issues

Overview of women's health issues: women in the health marketplace, a woman's right to control her body, media images and illness, eating disorders, therapy, alcohol, aging and the women's health movement.
Fall and Spring and every year. 3 Credits
HE-220 Mental Health Education
LASC Categories: HBS, ICW
Prerequisites: HE-100
Examination of mental health as a variable: its creation and the obstacles to good mental health and positive self-concept.
Fall and Spring and every year. 3 Credits
HE-225 Advanced Nutrition: The Prevention and Treatment of Obesity
LASC Categories: ICW
Prerequisites: HE-120
This course examines the role of nutrition in the prevention and treatment of a major public health issue: obesity. The course builds on basic nutrition principles and their application to weight management and eating behaviors. Emphasis will be on the consequences of obesity on cardiovascular and other chronic diseases. Body weight regulation concepts will include, but are not limited to, body weight assessment, energy metabolism, regulation of eating behavior, energy nutrients, and the role of diet/ physical activity in weight management.
Spring only and every year. 3 Credits
HE-230 Human Sexuality and Sex Education Prerequisites: HE-100
Focus on the need for and understanding of sex education, along with the process of implementing sexuality education, with emphasis upon teacher preparation.
Every year. 3 Credits

## HE-240 Writing and Learning From Experience I

LASC Categories: WAC
Prerequisites: EN-102 and instructor permission
Prepares students to write analytically about their experience and to apply their learning to courses and competencies in the major.
Every year. 3 Credits

## HE-242 Writing and Learning From Experience II

LASC Categories: TLC
Prerequisites: HE-240 and Instructor permission Integrating experiential essays inot longer narratives, developing themes and conceptual frameworks; applying experiential learning to courses, competencies in the major. Every year. 3 Credits
HE-260 First Aid: Advanced Theory and Skill
Common emergencies, cardiopulmonary resuscitation, auto extraction, and emergency childbirth. Opportunity for instructor rating. Fall and Spring and other or on demand. 3 Credits

HE-270 Psychopharmacology
LASC Categories: NSP
Prerequisites: PS-101
This course will explore the effects of psychotropic drugs on the brain and subsequent effects on behavior.
Fall and Spring and every year. 3 Credits
HE-275 Fitness for Life
Prerequisites: HE-120
Knowledge of health-related fitness components and their effect on total wellness; emphasis on developing personalized fitness program, namely cardiovascular endurance.
Every year. 3 Credits

## HE-280 Individual Stress Management and

 RelaxationStrategies and techniques for increasing stress resistance based on psychophysiological research. Fall and Spring and every year. 3 Credits

## HE-285 Drugs and Society

Drug use and abuse, and implications for the individual and society.
Fall only and every year. 3 Credits

## HE-325 Sports Nutrition <br> LASC Categories: ICW, QAC

Prerequisites: HE-120
The course is designed to examine the role of nutrition in exercise metabolism and to explore the link between basics of exercise physiology concepts and nutrition. This course includes the application of nutrition principles to maintain optimum health and to enhance athletic performance from a healthy, adequate, and personalized diet. Sports nutrition concepts include, but are not limited to, body composition, nutritional supplements, energy balance, and nutritional needs for physically active people and athletes.
Spring only and every 2-3 years. 3 Credits

## HE-330 Health Communication

Prerequisites: HE-100 or HC-201, and HC-203 This course focuses on the growing field of health communication and examines theories of interpersonal, organizational, and mass communication relevant to the professional communicator in the health field. Reviews strategies of persuasion, the relationship between knowledge, attitudes, beliefs, values, and behavior, as well as the changing nature of health and health delivery. Students will explore current health issues in varied communication contexts, such as interpersonal, group, and organizational and be introduced to Social Marketing, Social Media, Public Speaking, and Communication Toolkits.
Spring only and every year. 3 Credits

## HE-340 Health Counseling

Prerequisites: PS 101
A study of the counseling implications involved in health. Awareness of the counseling process and referral.
Other or on demand. 3 Credits
HE-350 Community Health Education
LASC Categories: GP, DAC, ICW
Prerequisites: HE-100
Opportunity for exploration of on-going community health education programs, and their impact upon that community. Prerequisite: Advanced standing Every year. 3 Credits

HE-354 Addictions Counseling of Individuals and Families
LASC Categories: ICW
Prerequisites: HE-285 or CJ-285
This course provides students with an applied understanding of counseling skills, techniques, and strategies in addiction treatment. The psychology of addictions and various treatment modalities are discussed. Engagement, assessment, treatment planning, brief and ongoing treatment, continuing care, and work with special populations are considered. Dialectical behavior therapy, cognitivebehavioral, mindfulness practice techniques, and motivational interviewing concepts are introduced, and students apply them in role-playing scenarios. Boundaries, ethics, and counselor self-awareness are also covered.
Fall and Spring and every year. 3 Credits

## HE-390 Environmental Health

Prerequisites: HE-100 or HC-201
Examination of the issues affecting the environment and their impact on our health.
Fall and Spring and every year. 3 Credits
HE-400 Special Topics
LASC Categories: ICW
Current issues in Health.
Every year. 3 Credits

## HE-406 The 12 Core Functions of Addictions Counseling

Prerequisites: 4 groups Take CJ-285 or HE-285; Take
CJ-208 or HE-208; Take HE-270 or PS-270; Take
CJ-354 or HE-354;
This culminating course prepares students to enter the field of substance use disorders and/or addictions counseling through an intensive review of the 12 Core Functions of Addictions Counseling. Students further develop the skill sets from prior coursework to serve as a foundation for gaining practical experience in addictions counseling. Fall and Spring and every year. 3 Credits

HE-407 Pre-Practicum Seminar in Addictions Counseling
Prerequisites: PS-101 Take HE-285 or CJ-285; Take HE-270 or PS-270; Take HE-208 or CJ-208; Take HE-354 or CJ-354; \# Take HE-406 or CJ-406;
Prerequisites or Corequisite: HE-406 or CJ-406
The course is designed for students who wish to complete the course Practicum in Addictions Counseling in pursuit of CADC licensure. Students are prepared for fieldwork through practice of counseling techniques, reviews of case studies, and study of counseling theories. All core functions of addictions counseling are reviewed and reinforced, with particular emphasis on assessment, counseling, and case management. Students practice in role play using a variety of modalities while considering the needs of special populations and the opportunities and constraints of various treatment settings. Ethical and legal considerations for addictions counselors are also explored.
Fall and Spring and every year. 3 Credits

## HE-408 Directed Study: Health

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits
HE-409 Practicum in Addictions Counseling
Prerequisites: HE-407 or CJ-407
Field experience in which students complete 150 hours of direct care experience in a substance use disorders counseling setting. To qualify for CADC licensure, the practicum must be repeated for a total of 300 hours and 6 credits. Course may be repeated. Fall and Spring and every year. 3 Credits
HE-440 Practicum in Health
LASC Categories: CAP, WAC
A field experience option required of all Health Studies majors. Prerequisite: Advanced standing
Fall and Spring and every year. 3 Credits
HE-450 Independent Study in Health
Creative, independent learning experiences designed and initiated by the health majors.
Fall and Spring and every year. 1-6 Credits

## Program Learning Outcomes

- Identify personal, social, and environmental determinants of population health.
- Critically evaluate health-related information.
- Conduct public health research.
- Apply and evaluate evidence-based population health improvement strategies.
- Employ community organization strategies to address determinants of health.
- Advocate for social changes that improve population health, equity, and diversity.


## Public Health - Pre-Nursing Program

The Public Health - Pre-Nursing Program is a dualdegree based on a formal affiliation agreement that admits a limited number of students into an articulated program that begins with 83 credits at WSU in the Public Health/Pre-Nursing program and continues with the accelerated Bachelor of Nursing program at the Massachusetts College of Pharmacy and Health Sciences University ("MCPHS University") Worcester or Manchester, NH campus. At the completion of the appropriate 37 credits (of the 63 required) at MCPHS University, the student transfers those credits back to WSU and earns a Bachelor of Science in Public Health. The student then completes the additional number of appropriate credits (26) at MCPHS University to earn the B.S. in Nursing. Students should see the advisor in the Health Sciences department assigned to the program.

The Bachelor of Science in Public Health requires the following 83 credits at WSU followed by the 63 credits in Nursing which will be taken at the MCPHS University campus in either Worcester or Manchester, NH.

## WSU Dual Degree Entrance Requirements

High School GPA 3.0 and SAT CR and MA total of 1000 (or ACT 21). Students for whom English is not their first language must also submit a TOEFL with a score of 213 or higher or a minimum of 90 on the iBT.

An Intent to Transfer/Enroll at MCPHS University form must be submitted by May 1 for fall enrollment and by September 1 for spring enrollment and must include an official WSU transcript.

Admission to the accelerated BSN program is also contingent upon a satisfactory pre-admission interview conducted by MCPHS University at the campus to which a student intends to transfer and is subject to availability of openings in the program.

The MCPHS University Worcester /Manchester Admissions Committee retains the right to make the final decision on each student's transfer application.

The B.S. in Public Health at WSU is earned upon the successful completion of 37 credits at MCPHS University. The WSU Registrar requires an official transcript.

## WSU Curriculum Requirements

- Complete 83 required credits at WSU with a minimum GPA of 2.5 during either 4 semesters and 2 summer sessions or 5 semesters.
- No grade below a C (2.0) in Public Health major courses or required ancillary courses -

| Code | Title | Credits |
| :--- | :--- | ---: |
| BI-161 | Human Anatomy and <br> Physiology I | 4 |
| BI-162 | Human Anatomy and <br> Physiology II | 4 |
| BI-206 | Medical Microbiology | 4 |
| CH-112 | Survey of Chemistry | 4 |
| PS-210 | Developmental <br> Psychology | 3 |
| PS-275 | Psychological Statistics <br> or MA-150 | Statistics I |

- Courses may not be re-taken.
- Transfer ancillary courses require prior written approval of MCPHS University.
- LASC courses may receive grades lower than C or be taken pass/fail.


## Requirements Completed at WSU (83)

| Year One |  |  |
| :---: | :---: | :---: |
| Semester One |  | Credits |
| FYS | First-Year Seminar (FYS) (p. 50) | 3 |
| EN-101 | College Writing I | 3 |
| HC-201 | Introduction to Public Health | 3 |
| HI-111 <br> or $\mathrm{HI}-112$ | US History to 1877 or US History 1865 to the Present | 3 |
| PS-101 | General Psychology | 3 |
|  | Credits | 15 |

Semester Two

| BI-161 | Human Anatomy and <br> Physiology I | 4 |
| :--- | :--- | ---: |
| CH-112 | Survey of Chemistry |  |$\quad 4$| 3 |
| ---: |
| EN-102 |
| College Writing II |

Semester Three

| PS-210 | Developmental Psychology | 3 |
| :--- | :--- | ---: |
| SO-100 | Introduction to Sociology | 3 |
| LASC | LASC Elective (QR) (p. 59) | 3 |
| Year Two | Credits | $\mathbf{9}$ |
| Semester Four | Human Anatomy and | 4 |
| BI-162 | Physiology II |  |
| BI-206 | Medical Microbiology | 4 |
| HC-202 | Introduction to Global Health | 3 |
| HC-415 | Community Health Planning <br> and Promotion | 3 |
| PS-275 | Psychological Statistics <br> or Statistics I | 4 |
|  | Credits | $\mathbf{1 8}$ |


| Semester Five |  |  |
| :--- | :--- | ---: |
| HE-120 | Health and Nutrition | 3 |
| HC-203 | Introduction to Epidemiology | 3 |
| HC-425 | Research Seminar | 3 |
| HE-390 | Environmental Health | 3 |
| LASC | LASC Elective (CA) (p. 48) | 6 |
| LASC | LASC Elective (GP) (p. 51) |  |
|  | Credits | $\mathbf{1 8}$ |

Semester Six

| HE-210 | Women's Health Issues | 3 |
| :--- | :--- | :--- |
| LASC | LASC Elective (TLC) (p. 61) | 6 |


| LASC | LASC Elective (USW) (p. 60) |  |
| :--- | :--- | ---: |
| Credits | $\mathbf{9}$ |  |
|  | Total Credits | $\mathbf{8 3}$ |

Students in Track I will complete the above courses with the addition of two summer sessions at WSU.

Students in Track II will complete the above courses during a third Fall semester at WSU.

## Requirements Completed at MCPHSU

| Fall or Spring | Credits |  |
| :--- | :--- | ---: |
| NUR 205 | Nursing History, Knowledge <br> \& Narrative | 3 |
| NUR 208 | Essential Concepts of <br> Nursing | 3 |
| NUR215/215L |  <br> Technologies | 4 |
| NUR 226 |  <br> Pharmacology | 6 |
|  | Credits | $\mathbf{1 6}$ |


| Spring or Summer |  |  |
| :--- | :--- | ---: |
| NUR 325/335L |  <br> Elder Health | 8 |
| NUR350 | Scholarly Inquiry | 3 |
|  | Credits | 11 |

## Summer or Fall

$\left.\begin{array}{llr}\text { NUR 330 } & \text { Nursing History, Knowledge } & 3 \\ & \text { \& Narrative }\end{array}\right)$ 6

| Fall or Spring II |  |  |
| :--- | :--- | ---: |
| NUR 425 | Provider of Care IV: <br> Community/Home Health | 8 |
| NUR 445 | Provider of Care V: <br> Coordinator of Care | 6 |
| NUR 450 | Member of a Profession: <br> Capstone Project | 4 |
|  | Credits | $\mathbf{1 8}$ |
|  | Total Credits | $\mathbf{6 0}$ |

Please see LASC section of this catalog for information on the Liberal Arts and Sciences Curriculum (LASC) and for policies governing the use of major courses toward LASC requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Public Health Major

The goal of the Public Health Major is to prepare health practitioners in the public health disciplines of wellness, health promotion, and holistic disease prevention as well as in community health services through cooperative, multi-disciplinary experiences. Coursework focuses on examining the social, behavioral, and environmental determinants associated with pressing health problems to plan, implement, and evaluate appropriate health promotion programs and preventive services to improve population health.

## Requirements for the Public Health Major

| Code |  |  |
| :--- | :--- | ---: |
| Major Required Courses | Title | Credits <br> (31-34 <br> credits) |
| HC-201 | Introduction to Public Health | 3 |
| HC-202 | Introduction to Global Health <br> (DAC) | 3 |
| HC-203 | Introduction to Epidemiology <br> (GP, NSP, QAC, ICW) | 3 |
| HC-228 | Health Ethics <br> or PH-131 | Medical Ethics |
| HC-245 | Introduction to Public Health <br> Research | 3 |
| HC-390 | Environmental Health <br> Community Health Planning <br> and Promotion | 3 |
| HC-425 | Research Seminar (CAP/ <br> WAC) | 3 |
| HC-430 | Health Promotion Program <br> Implementation \& Evaluation | 3 |
| HC-450 | Pre-Practicum Seminar 3 <br> Practicum: Community  <br> Health (CAP/WAC)  | $3-6$ |

Electives
(31-38 credits)

| Majors Electives (Group 1) ${ }^{1}$ |  |  |
| :---: | :---: | :---: |
| Select one or two courses from the following: |  | 3-6 |
| HE-120 | Health and Nutrition |  |
| HC-220 | Health Policy |  |
| HC-234 | Multiculturalism and Health |  |
| HC-350 | Group Process |  |
| HE-350 | Community Health Education (GP, ICW, DAC) |  |
| HC-403 | Department <br> Workshop:Community <br> Health |  |
| HE-450 | Independent Study in Health |  |
| Interdisciplinary Electives (Group 2) ${ }^{1}$ |  |  |
| See Health Sci approved cours | separtment for list of | 9-13 |
| Required Ancillary Courses |  |  |
| BI-161 | Human Anatomy and Physiology I | 4 |
| BI-162 | Human Anatomy and Physiology II (NSP Lab) | 4 |
| CH-112 | Survey of Chemistry | 4 |
| EN-252 | Technical Writing | 3 |
| PS-275 | Psychological Statistics (QR/QAC or MA/QR) | 4 |
| or MA-150 | Statistics I |  |
| or SO-275 | Social and Behavioral Statistics |  |

Total Credits
${ }^{1}$ Students must take at least one course from Group 1 with a maximum of two. Eligible courses for Group 1 are $\mathrm{HE}-120$ and any 200 -level course offered by the Health Sciences Department. Students must take the remaining major elective courses ( 3 to 4 courses) from Group 2. Eligible courses for Group 2 are any 200 -level course outside of the Health Sciences Department. For Group 2 , each elective must come from a different department.

## Department of Health Sciences: Public Health Sample Timeline for Completion of Degree

| Year One |  | Credits |
| :--- | :--- | ---: |
| Semester One |  | 3 |
| LASC | First-Year Seminar (FYS) <br> (p. 50) | 3 |
| EN-101 | College Writing I (WR) | 3 |
| MA 1XX | Any Math Course (MA/QR) | 3 |


| HC-201 | Introduction to Public Health | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
|  | Credits | 15 |
| Semester Two |  |  |
| EN-102 | College Writing II (WR) | 3 |
| PS-101 | General Psychology (HBS) | 3 |
| HC-202 | Introduction to Global Health | 3 |
|  | (DAC) |  |
| CH-112 | Survey of Chemistry (NSP | 4 |
|  | \#1) |  |


| BI-161 | Human Anatomy and <br> Physiology I | 4 |
| :--- | :--- | ---: |
|  | Credits | $\mathbf{1 7}$ |

## Year Two

Semester Three

| LASC | Distribution Elective (CON) | 3 |
| :--- | :--- | ---: |
| HC-203 | Introduction to Epidemiology <br> (GS, NSP, QAC, ICW) | 3 |
| BI-162 | Human Anatomy and <br> Physiology II (NSP \#2) | 4 |
| LASC | Distribution Elective (CA) <br> (p. 48) | 3 |
| EN-252 | Technical Writing | 3 |
|  | Credits | $\mathbf{1 6}$ |

## Semester Four

| LASC | Distribution Elective (GP) (p. 51) | 3 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { HC-228 } \\ & \quad \text { or PH-131 } \end{aligned}$ | Health Ethics or Medical Ethics | 3 |
| HC-245 | Introduction to Public Health Research | 3 |
| Elective | Major/Interdisciplinary Elective \#1 | 3 |
| $\begin{aligned} & \text { PS-275 } \\ & \quad \text { or MA-150 } \end{aligned}$ | Psychological Statistics (QR \#2/QAC) <br> or Statistics I | 4 |

Credits 16
Year Three

## Semester Five

| LASC | Distribution Elective (TLC) <br> $(\mathrm{p} .61)$ | 3 |
| :--- | :--- | ---: |
| Elective | Major/Interdisciplinary <br> Elective \#2 | 3 |
| Elective | Distribution Elective \#3 | 3 |
| HE-390 | Environmental Health | 3 |
| Elective Course |  | 3 |
|  | Credits | $\mathbf{1 5}$ |



Note: LASC Distribution Electives, do not have to follow this order.

Please see LASC section of this catalog for information on the Liberal Arts and Sciences Curriculum (LASC) and for policies governing the use of major courses toward LASC requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## HC-201 Introduction to Public Health

This course is an overview and will focus on populations, prevention, and the evidence-based practice of public health. Every year. 3 Credits
HC-202 Introduction to Global Health
LASC Categories: GP, ICW, DIV, DAC
The course introduces students to the main concepts of public health and the critical links between public health and social and economic development. Students get an overview of the determinants of health, how health status is measured, and the influences of various factors, including cultural, historic, geographic, social, economic, and political issues on the health of individuals and communities. The course also introduces students to key concerns regarding nutrition, reproductive health, infectious disease, and chronic diseases. The course will be global in coverage but with an important focus on the developing world and on the health of the poor.
Fall and Spring and every year. 3 Credits
HC-203 Introduction to Epidemiology
LASC Categories: ICW, NSP, QAC, GP
Prerequisites: any Math course and HC-201.
Basic epidemiologic concepts are covered and application of concepts to everyday problems; e.g., hazards in food supplies and risks associated with lifestyle.
Every year. 3 Credits
HC-220 Health Policy
Prerequisites: HE-100
Examination of the process and factors that influence formulation, implementation and modification of health policy in the United States. Fall and Spring and every year. 3 Credits

## HC-228 Health Ethics

Prerequisites: $\mathrm{HE}-100$ or $\mathrm{HC}-201$
Ethical issues in health including genetic research, euthanasia, medical intervention and reproductive technologies as well as professional ethics.
Fall and Spring and every year. 3 Credits

## HC-234 Multiculturalism and Health

Examination of diverse ethnic/racial and cultural beliefs beliefs and practices affecting health and illness
Spring only and every year. 3 Credits

## HC-245 Introduction to Public Health Research Prerequisites: EN-252

This course introduces students to health sciences research. Students will develop critical skills including effectively navigating and interpreting information, distinguishing between high quality and low quality sources of evidence. Students will gain an understanding of the importance of staying actively informed of current events relevant to public health and how informed public health professionals can seek out high quality news on public health as well as discern effective from misleading news relevant to public health policy. Students also will spend extensive time exploring the difference between information found on internet searches and social media versus reliable health agency information. Spring only and every year. 3 Credits

## HC-338 Peer Education Training

Prerequisites: HE-100
Emphasis on student development of practical skills to implement programming centered on peer education programs and focused on preventative health.

Other or on demand. 3 Credits

## HC-340 Global Perspective in Public Health LASC Categories: GP, ICW

Seminar course for students accepted into a global service learning trip during the academic year. It is designed to prepare students through curriculumbased learning, the components of service learning; ethical partnering with vulnerable communities, and the cultural/historical/political and economic factors that impact health and healthcare policies within the population where immersion takes places. There will be self-reflection and integration of learning through journal writing, critical thinking and exercises formal preparation for service in the host country and final paper at the end of the semester.
Other or on demand and every year. 3 Credits

## HC-345 Introduction to the U.S. Health Care System Prerequisites: HC-201

This course is an overview of the U.S. health care system (USHCS) and its components. Subjects to be reviewed include how social determinants of health influence access to health care and the role of healthcare providers and their effect in the health care system. The history of USHCS, the financing of services, types of services offered as well as access and quality of these services. Understanding these topics will help formulate an understanding of how the USHCS functions and the factors involved in the delivery of healthcare services.
Fall only and every year. 3 Credits

## HC-350 Group Process

Prerequisites: HE-100
A didactic and experiential examination of various theories of group dynamics and their application to the facilitation of health-related groups. Research paper.
Fall and Spring and every year. 3 Credits
HC-403 Department Workshop:Community Health
The subject matter of this course will be reflective of the changing issues within the field of community health.
Other or on demand. 3 Credits

## HC-408 Directed Study: Public Health

Directed study offers students who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits
HC-415 Community Health Planning and Promotion
Prerequisites: 4 courses in the major at 200 level or above.
Emphasis on community analysis; defining and verifying community health problems and establishing goals and objectives. Research paper. Fall and Spring and every year. 3 Credits

HC-425 Research Seminar
LASC Categories: CAP, WAC
Prerequisites: HC-228 or PH-131, HC 203 and one of the following MA-150, PS-275 or SO-275.
Students will be required to produce a proposal for a research study based on a community public health issue.
Every year. 3 Credits

HC-430 Health Promotion Program Implementation \& Evaluation
Prerequisites: $\mathrm{HC}-245$ and $\mathrm{HC}-415$
The success of a well-planned health promotion program depends on effective implementation and evaluation procedures. This course will review the process of program planning and explore implementation and evaluation strategies. This course will equip students to collect, analyze, interpret, and disseminate evidence of a program's effectiveness to relevant stakeholders. The course will culminate with a written evaluation plan and mock poster presentation delivered to an audience of peers.
Fall and Spring and every year. 3 Credits
HC-445 Pre-Practicum Seminar
Prerequisites or Corequisite: HC-415
Discussion of career opportunities in the public health field, professional development, and graduate coursework in the health sciences field. This mandatory class should be taken the semester before registering for the practicum.
Fall and Spring and every year. 1 Credit
HC-450 Practicum: Community Health LASC Categories: CAP, WAC
Prerequisites: 24 credits in $\mathrm{HE} / \mathrm{HC}$ courses and EN-102
Field experience in which students will select a community health speciality area and spend a semester pursuing their goal through participation. See HE 440 Practicum in Health.
Every year. 3-6 Credits

## Public Health Major, Concentration in Health Education

Complete all Public Health major required and ancillary courses.

## Concentration in Health Education (Total: 15 credits):

Substitute Public Health major/interdisciplinary electives with the following courses:

| Code | Title | Credits |
| :--- | :--- | ---: |
| HE-100 | Personal Health | 3 |
| HE-120 | Health and Nutrition | 3 |
| HE-205 | Principles \& Foundations of | 3 |
|  | Health Promotion |  |


| HE-330 | Health Communication | 3 |
| :--- | :--- | :--- |
| HC/HE elective |  | 3 |

Total Credits 15

NOTE: For students enrolled in a MINOR IN SECONDARY EDUCATION:

Minor in Secondary Education will have CH 112 waived and they can take HE285 Drugs and Society instead

Minor in secondary Education will have the HC-445
Pre-practicum and HC450-Practicum waived (4 credits)

Minor in secondary Education will present a CPR certification when submitting the intent to graduate form

## Public Health Minor

Note: Students may not major and minor in this discipline.

The Public Health Minor is designed to develop an in-depth understanding of the core areas and competencies of the public health discipline by introducing students to various determinants affecting health from global, national, community, and local perspectives.

## Requirements for the Public Health Minor

| Code | Title | Credits <br> (21 <br> Requirements |
| :--- | :--- | ---: |
| HC-201 |  | Introduction to Public Health |
| HC-202 | Introduction to Global Health | 3 |
| HC-203 | Introduction to Epidemiology | 3 |
| HC-415 | Community Health Planning <br> and Promotion | 3 |
| Electives | from HE and HC Health <br> courses | 9 |
| Total Credits |  | $\mathbf{2 1}$ |

## Mathematics

## Department of Mathematics

The Department prepares its students for advanced study and research as well as for careers in business, industry, government, and teaching. Students are encouraged to seek the advice of their faculty advisor in the selection of a concentration and elective courses that will best prepare them for their career choices.

Mathematics is the language of science and also plays a key role in many of the social sciences. An understanding of mathematics provides a powerful approach to solving problems through organization, simplification, and abstraction. In today's job market, individuals with highly developed analytical and problem-solving skills are in great demand. Therefore, there are numerous career options for students who choose to major in mathematics.

The Mathematics Department offers two majors. One is a Mathematics Major with four possible concentrations: Traditional, Secondary Education, Statistics and Modeling, and Actuarial Studies. The other is Mathematics for Elementary Education which also requires a student to complete the Elementary Education Major.

Computer software is used in many courses. These programs include Maple, Geogebra, Sage, SPSS, Matlab, Geometer's Sketchpad, and DPGraph.

## Mathematics Placement

All new students should take the math placement exam. Results will be used to determine appropriate course placement. To take a mathematics course (except MA-105) at Worcester State University, a student must complete the placement test process prior to registration. Students who have graduated from high school with at least a 2.7 overall high school GPA within the last three years are eligible for MA-105.

- Actuarial Mathematics Minor (p. 274)
- Mathematics for Elementary Education (p. 274)
- Mathematics Major. Concentration in Actuarial Studies (p. 276)
- Mathematics Major: Concentration in Secondary Education (p. 277)
- Mathematics Major. Concentration in Statistics and Modeling (p. 279)
- Mathematics Major. Concentration in Traditional Mathematics (p. 280)
- Mathematics Minor (p. 282)
- Middle School Mathematics Minor (p. 282)


## Faculty

Kyle T. Allaire, Assistant Professor (2020), B.A., M.A., Rhode Island College; Ph.D.,University of Connecticut

Timothy Antonelli, Associate Professor (2015), B.S.E., Duke University; Ph.D., North Carolina State University

Noah Daleo, Associate Professor (2015), B.S., Kennesaw State University; Ph.D., North Carolina State University

Mary S. Fowler, Professor (2004), B.A., New York University; M.S., Ph.D., Carnegie Mellon University

Maria G. Fung, Professor (2008), B.A., Clark
University; M.S., Ph.D., Cornell University
Elizabeth Gilbert, Associate Professor (2016), B.S., M.S., Villanova University; Ph.D., Temple University

Hy Ginsberg, Professor (2011), B.S., State University of New York Stony Brook; M.S., Ph.D., University of Vermont

Jason A. Hardin, Associate Professor (2014), B.A., University of Cincinnati; M.S., Ph.D., University of Nebraska Lincoln

Caitlin Krul, Associate Professor (2016), B.S., Salem State College; M.S., Ph.D., University of Rhode Island

Eileen B. Perez, Developmental Mathematics Program Director, Professor (2013), B.S., M.S. Union College; Ed.D., Nova Southeastern University

Hansun T. To, Professor (2004), B.A., Rosemont
College; M.A., Ph.D., Temple University
Michael Winders, Department Chair, Professor (2004), B.S., M.S., Ph.D., University of Iowa

## Courses

## MA-098 Developmental Math: Arithmatic

Prerequisites: Pass math placement test with a code of 1 or above.
Whole numbers, fractions, decimals, percents, rates, ratios, proportions, word problems, graphs, tables, signed numbers, variables and expressions. [credits are developmental]
Fall and Spring and every year. 3 Credits

## MA-099 Developmental Math: Algebra

Prerequisites: Pass math placement test with a code 2 or above
A review of arithmetic and elementary algebra preliminary to MA110. Three developmental credits, not counted toward degree. [credits are developmental]
Fall and Spring and every year. 3 Credits

## MA-105 Survey of Mathematics <br> LASC Categories: QR

Prerequisites: Pass math placement test with code 3 or above
Financial management, probability theory, voting methods and other topics selected to improve the quantitative literacy of students. Not for mathematics majors.
Fall and Spring and every year. 3 Credits
MA-107 Mathematical Explorations-- Invitation To Effective Thinking
LASC Categories: QR
Prerequisites: Pass math placement exam with a code of 3.
Analysis of mathematical topics including (but not limited to) logical thinking, elementary number theory, concepts of infinity, geometry gems, modeling through graphs, fractals, and uncertainty.
Fall and Spring and every year. 3 Credits

## MA-130 Number and Operations for Teachers LASC Categories: QR <br> Prerequisites: Pass math placement test with code 5 or above <br> Develops understanding of the mathematical content of number and operations at the deep level required for successful elementary and middle school teaching. <br> Fall and Spring and every year. 3 Credits

MA-131 Patterns, Functions and Algebra for Teachers
LASC Categories: QR
Prerequisites: MA-130 Minimum grade C
Develops understanding of the mathematical content of patterns, functions and alegebra at the deep level required for successful elementary and middle school teaching. Credit will not be awarded for MA-180 (formerly MA-110) and MA 131.
Fall and Spring and every year. 3 Credits

## MA-132 Geometry, Measurement, Probability and

 Statistics for TeachersLASC Categories: QR
Prerequisites: MA-130 with a C or above.
Develops understanding of the mathematical content of geometry, measurement, probability and statistics at the deep level required for successful elementary and middle school teaching.
Fall and Spring and every year. 3 Credits

## MA-150 Statistics I

LASC Categories: QR
Prerequisites: Pass Math Placement Test with code 4 or above
Descriptive techniques, elementary probability, distribution of the sample mean, confidence intervals, hypothesis testing of the means of one and two samples, linear regression and correlation. Credit will not be awarded for both MA-150 and MA-302.
Fall and Spring and every year. 3 Credits

## MA-180 Introduction to Functions

LASC Categories: QR
Prerequisites: Pass math placement exam with a score of 5 or above.
Properties, graphing, and applications of linear, quadratic, polynomial, rational, exponential, and logarithmic functions; systems of linear equations. Fall and Spring and every year. 3 Credits

## MA-190 Pre-calculus

LASC Categories: QR, NLL
Prerequisites: MA 110 or MA-180 with a grade of at least C- or math placement exam code 6 or above Review of exponential and logarithmic functions; trigonometric functions, identities, and equations; systems of linear equations and inequalities; and applications.
Fall and Spring and every year. 4 Credits

MA-193 Special Topics in Math for First Year Students
LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
3 Credits

## MA-200 Calculus I

LASC Categories: QR, NLL
Prerequisites: MA 190 with a grade of at least C- or math placement exam code 7
Limits, continuity, differentiation and integration of functions, the Fundamental Theorem of Calculus, L'Hôpital's Rule, applications including related rates, optimization, and area. Credit willnot be given for both MA-200 and MA-202.
Fall and Spring and every year. 4 Credits

## MA-201 Calculus II

LASC Categories: QR, NLL
Prerequisites: MA 200 with a grade of at least C-
Techniques of integration, infinite sequences and series, power series, applications including volume and functional approximation.
Fall and Spring and every year. 4 Credits

## MA-202 Business Calculus

LASC Categories: QR, NLL
Prerequisites: MA-180 with a grade of at least C- or math placement exam code 6 or above
Review of functions, limits, derivatives, integration and introduction to multivariate calculus. Business applications of these topics.
Fall and Spring and every year. 4 Credits

## MA-240 Theory of Proof

LASC Categories: NLL
Prerequisites: MA-200 minimum grade C-
Logic and Proof, Set Theory, Math Induction, Relations, Functions, Sequences and Convergence, Limits and Continuity, Congruences, Introductions to Groups.
Fall and Spring and every year. 4 Credits

## MA-260 Linear Algebra

Prerequisites: MA 240 with a grade of at least C. Solutions of simultaneous equations by means of matrices and determinants; vector spaces, linear transformations; also, as time permits, characteristic values, bilinear and quadratic forms.
Fall only and every year. 3 Credits

## MA-302 Probability and Statistics

Prerequisites: MA 200 with a grade of at least C-
Descriptive statistics, probability theory,
combinatorics, correlation, regression and inference
techniques. Credit will not be awarded for both MA-150 and MA-302.
Fall and Spring and every year. 3 Credits

## MA-303 Mathematical Modeling

Prerequisites: MA 201 with a grade of at least CThe development, analysis, and application of continuous and discrete-time models from the physical, financial, and life sciences.
Fall and Spring and every year. 3 Credits

## MA-304 Data Analysis

LASC Categories: NLL
Prerequisites: MA-302 CS-135 Minimum grade C-; Case studies combining applied statistics, mathematical statistics, mathematics, computing, and communications to simulate work experience of a practicing statistician.
Spring only and every year. 4 Credits

## MA-309 Topics in Mathematics for Middle and

## Secondary Teachers

Prerequisites: MA 240 with a grade of $C$ or better. MA 340 is highly recommended.
Students will strengthen and expand their knowledge of the mathematics taught in middle/high school.
Specific emphasis will be placed on topics in geometry and trigonometry. Spring only and every year. 3 Credits

## MA-310 Calculus III

LASC Categories: NLL
Prerequisites: MA 201 with a grade of at least CVectors, parametric equations, polar, cylindrical and spherical coordinates, multivariable functions, properties and applications, partial derivatives, multiple integrals.
Fall only and every year. 4 Credits

## MA-320 Ordinary Differential Equations

Prerequisites: MA 310 with a grade of at least CTechniques for solving first- and second-order ordinary differential equations, including Laplace transformations, numerical approximations and graphical techniques.
Spring only and other or on demand. 3 Credits

## MA-327 Combinatorics and Graph Theory

Prerequisites: MA-240 with a grade of $C$ or above. The course will examine various topics from combinatorics and graph theory, including enumeration, recurrence relations, generating functions, graphs and their properties (e.g., planarity, colorability), and trees. The course will have an emphasis on both proof writing and computation. Spring only and every year. 3 Credits

## MA-340 Modern Geometry

Prerequisites: MA 240 with a grade of at least C.
Topics from Euclidean and non-Euclidean geometry. Spring only and every year. 3 Credits

## MA-360 Number Theory

Prerequisites: MA 240 with a grade of at least C. Divisibility properties of integers, prime numbers, the Euclidean algorithm, the unique factorization theorem, congruences, Diophantine equations, number theoretic functions.
Fall only and every year. 3 Credits

## MA-380 Probability

Prerequisites: MA 310 with a grade of at least CProbability concepts including: counting, conditional probability, independence, expectation and variance of univariate and multivariate distributions. This is the first course in a two-course sequence that prepares students for the first actuarial exam. Fall only and every year. 3 Credits

## MA-382 Actuarial Preparation Workshop

Prerequisites: MA-310 with a B- or greater and approval of Math Chair
This course supports students as they prepare for either of the following actuarial exams: Probability Exam P or Financial Mathematics Exam FM. Focus will be on developing the required mathematical competencies, professionalism and communication of mathematical concepts consistent with actuarial industry standard, networking towards the acquisition of an internship or job in the actuarial field.
Spring only and every year. 3 Credits

## MA-405 Abstract Algebra

Prerequisites: MA 240 with a grade of at least B- and MA 260 with a grade of at least C-. Introduction to groups, rings, and fields. Spring only and every year. 3 Credits

## MA-408 Directed Study: Mathematics

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
1-6 Credits

## MA-410 Real Analysis

Prerequisites: MA 310 and MA-240 with a grade of at least B-
Rigorous treatment of sequences, topology of the real numbers, continuity; also, as time allows, differentiation, integration.
Fall only and every year. 3 Credits

## MA-425 Mathematical Statistics

Prerequisites: MA-240 and MA-310 with a minimum grade of B -, and MA-380 with a minimum grade of CA rigorous treatment of statistical inference including: maximum likelihood estimators, sufficiency, consistency, hypothesis tests, likelihood ratio tests and Bayesian inference.
Spring only and every year. 3 Credits

## MA-470 Capstone Experience

LASC Categories: CAP, WAC
Prerequisites: Senior standing within the major. EN-102 or EN-250
Students complete an independent mathematics research/problem-solving project, including oral presentations and a final written paper.
Fall only and every year. 3 Credits

## MA-497 Selected Topics in Mathematics

Prerequisites or Corequisite: MA-240 and MA-260
(MA-260 may be taken concurrently). Pre-requisite will vary according to content.
Selection of topics of mutual interest to students and faculty.
3 Credits

## MA-498 Internship: Mathematics

Working in and for an organization where ones skills can be tested in real-world situations. Students will have an opportunity to gain experience, to increase knowledge in various functional areas, and establish important contacts with an organization. [Consent of instructor.]
3 Credits

MA-499 Independent Study in Mathematics
Offers advanced students an opportunity to examine topics not normally covered in other mathematics courses. Geared to interests of both the student and the instructor.
Fall and Spring and every year. 1-6 Credits

## Program Learning Outcomes

- Apply mathematical reasoning to critically approach, analyze, and solve problems.
- Organize mathematical thought and effectively communicate ideas using written and oral arguments.
- Use appropriate technology to explore and solve mathematical problems.
- Recognize and contribute to the various roles of mathematics in society.
- Be prepared for a career or graduate study in mathematics or a related field.
Actuarial Mathematics Minor Requirements for a Actuarial Mathematics Minor

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| MA-310 | Calculus III | 4 |
| MA-380 | Probability | 3 |
| MA-382 | Actuarial Preparation | 3 |
|  | Workshop |  |

Total Credits

## Mathematics for Elementary Education

## The Mathematics for Elementary Education Major

This major serves as a second major for Elementary Education majors. It prepares pre-service teachers to be mathematical leaders in elementary schools.

## Admission Requirements for the Mathematics Major

Rigorous high school coursework with above-average grades in mathematics and/or computer science courses.

## Requirements for the Mathematics for Elementary Education Major

| Code | Title | Credits |
| :---: | :---: | :---: |
| MA-130 | Number and Operations for Teachers | 3 |
| MA-131 | Patterns, Functions and Algebra for Teachers | 3 |
| MA-132 | Geometry, Measurement, Probability and Statistics for Teachers | 3 |
| MA-190 | Pre-calculus | 4 |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| MA-240 | Theory of Proof | 4 |
| MA-302 | Probability and Statistics | 3 |
| MA-303 | Mathematical Modeling | 3 |
| MA-360 | Number Theory | 3 |
| ED-425 | Sem: Applying Ed Principles | 3 |
| ED-435 | Practicum in Teaching: Elementary School | 9 |

Total Credits
46

Note: The pre-requisite for MA-190 is MA-180. However, credit will not be given for both MA-131 and MA-180. If a student wishes to register for MA-190 upon completion of MA-131, he/she must receive a C- or better in MA-131 and complete a packet of supplementary materials that will be reviewed by either the MA-190 instructor or department chair.

MA-130, MA-131, and MA-132 must be completed with grades of at least B-, a student may retake any one of these courses at most once to increase a grade below a B-, and may retake at most two of these courses.

MA-190, MA-200, and MA-240 must be completed with grades of at least $C-$, a student may retake any on one of these courses at most once to increase a grade below a C-, and may retake at least two of these courses.

Students taking ED-425 and ED-435 must complete all prerequisite coursework for the Elementary Education Major Teacher Licensure Program and pass 053 Mathematics (Elementary) MTEL.

## Sample Timeline for the Mathematics for Elementary Education Major

| Year One |  |  |
| :---: | :---: | :---: |
| Semester One |  | Credits |
| MA-130 | Number and Operations for Teachers (QR) | 3 |
| $\begin{aligned} & \text { ED-150 } \\ & \quad \text { or ED-155 } \end{aligned}$ | Introduction to the Teaching Profession (ICW) or Teaching and Learning in Elementary School | 3 |
| PS-101 | General Psychology (HBS) | 3 |
| EN-101 | College Writing I (WR) | 3 |
| FYS | First-Year Seminar (FYS) (p. 50) | 3 |

## Semester Two

| MA-131 | Patterns, Functions and <br> Algebra for Teachers (QR) | 3 |
| :--- | :--- | ---: |
| MA-190 | Pre-calculus |  |

## Year Two

| Semester Three |  |  |
| :--- | :--- | ---: |
| MA-132 | Geometry, Measurement, <br> Probability and Statistics for <br> Teachers | 3 |
| MA-200 | Calculus I | 4 |
| ED-250 | Educational Psychology | 3 |
| HI-112 | US History 1865 to the <br> Present (USW) | 3 |
| MU-237 | Music in the Elementary <br> School (CA) | 3 |
|  | Credits | $\mathbf{1 6}$ |


| Semester Four |  |  |
| :--- | :--- | ---: |
| MA-201 | Calculus II | 4 |
| ED-261 | Introduction to the <br> Foundations of Reading | 3 |
| ED-271 | International and <br> Comparative Education (GP) | 3 |
| ED-275 | Curr/Instr in Elementary Ed | 3 |
| EV-120 | Integrated Environmental <br> Science for Educators (NSP <br> LAB) | 4 |
|  | Credits | $\mathbf{1 7}$ |

Year Three
Semester Five

| MA-240 | Theory of Proof | 4 |
| :--- | :--- | ---: |
| MA-302 | Probability and Statistics | 3 |
| ED-304 | Best Practices for English <br> Language Learners (TLC) | 3 |
| ED-306 | Elementary Reading, <br> Language Arts and Literature | 6 |
| Cemester Six | Credits | $\mathbf{1 6}$ |
| MA-303 | Mathematical Modeling | 3 |
| ED-320 | Elementary Science | 3 |
| GS-101 | Physical Geography (NSP) | 3 |
| ED-325 | Elementary Mathematics | 3 |
| LASC | LASC Elective (DIV) | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Year Four

## Semester Seven

| MA-360 | Number Theory | 3 |
| :--- | :--- | ---: |
| ED-330 | Elementary Social Studies <br> and Mulriculturalism | 3 |
| ED-375 | Prepracticum: Instruction, <br> Classroom Management, <br> and Family and Community | 3 |
|  | Engagement in the <br> Elementary School |  |
|  | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | Credits | $\mathbf{1 5}$ |

## Semester Eight

| ED-425 | Sem: Applying Ed Principles | 3 |
| :--- | :--- | ---: |
| ED-435 | Practicum in Teaching: | 9 |
|  | Elementary School |  |
|  | (Capstone) |  |
|  | Credits | $\mathbf{1 2}$ |
|  | Total Credits | $\mathbf{1 2 2}$ |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Mathematics Major: Concentration in Actuarial Studies

## Admission Requirements for the Mathematics Major

Rigorous high school coursework and strong SAT scores with above average grades in mathematics and computer science courses.

## Requirements for Mathematics Major: Concentration in Actuarial Studies <br> Core Courses Math Major. 22 credits (including Ancillary)

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| MA-240 | Theory of Proof | 4 |
| MA-260 | Linear Algebra | 3 |
| MA-310 | Calculus III | 4 |
| MA-470 | Capstone Experience | 3 |
| Total Credits |  | $\mathbf{2 2}$ |

Requirements for the Concentration in Actuarial Sciences: 19 credits

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-302 | Probability and Statistics | 3 |
| MA-303 | Mathematical Modeling | 3 |
| MA-304 | Data Analysis | 4 |
| MA-380 | Probability | 3 |
| MA-382 | Actuarial Preparation | 3 |
| MA-425 | Workshop | 3 |
| Total Credits | Mathematical Statistics | 19 |

Ancillary Requirements: $\mathbf{3 0}$ credits

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-110 | Introduction to | 3 |
|  | Microeconomics |  |$\quad$| EC-120 |
| :--- |


| EC-201 | Intermediate <br> Microeconomics | 3 |
| :--- | :--- | :--- |
| BA-210 | Financial Accounting I | 3 |
| BA-220 | Financial Accounting II | 3 |
| BA-316 | Financial Management | 3 |
| BA-404 | Corporate Finance | 3 |
| CS-265 | Database Applications | 3 |
| CS-135 | Programming for Non-CS <br> Majors | 3 |

Total Credits
30

Total Credits: 71
MA-200, MA-201 and MA-240 must be completed with grades of at least C- by the end of the sophomore year. A student may only retake any of these courses at most once to increase a grade below C-; and may retake at most two of these courses to increase a grade below C -.

Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

## Department of Mathematics: Mathematics Major Concentration in Actuarial Sciences Sample Timeline for Completion of Degree

## Year One

| Semester One | Credits |  |
| :--- | :--- | ---: |
| MA-200 | Calculus I | 4 |
| CS-135 | Programming for Non-CS | 3 |
|  | Majors (QR) |  |
| EC-110 | Introduction to | 3 |
|  | Microeconomics |  |
| EN-101 | College Writing I | 3 |
| LASC | First-Year Seminar (FYS) | 3 |
|  | (p.50) |  |

Semester Two

| MA-201 | Calculus II | 4 |
| :--- | :--- | ---: |
| MA-240 | Theory of Proof | 4 |
| EC-120 | Introduction to | 3 |
|  | Macroeconomics |  |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
|  | Credits | $\mathbf{1 7}$ |


| Year Two |  |  |
| :--- | :--- | ---: |
| Semester Three |  | 4 |
| MA-310 | Calculus III | 3 |
| MA-302 | Probability and Statistics | 3 |
| BA-210 | Financial Accounting I | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | Credits | $\mathbf{1 6}$ |

## Semester Four

| MA-304 | Data Analysis | 4 |
| :--- | :--- | ---: |
| MA-382 | Actuarial Preparation <br> Workshop | 3 |
|  | Financial Accounting II | 3 |
| BA-220 | LASC Elective (NSP) (p. 58) | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
| LASC | Credits | $\mathbf{1 6}$ |

## Year Three

Semester Five

| MA-380 | Probability | 3 |
| :--- | :--- | :--- |
| MA-260 | Linear Algebra | 3 |
| CS-265 | Database Applications | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| LASC | LASC Elective (NSP LAB) | 4 |
|  | (p. 57) |  |


| Semester Six |  |  |
| :--- | :--- | ---: |
| MA-303 | Mathematical Modeling | 3 |
| EC-200 | Intermediate |  |
|  | Macroeconomics | 3 |
| BA-316 | Financial Management | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
|  | Credits | $\mathbf{1 5}$ |

Year Four
Semester Seven

| MA-470 | Capstone Experience | 3 |
| :--- | :--- | ---: |
| EC-201 | Intermediate <br> Microeconomics | 3 |
|  | LASC Elective (DIV) | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 2}$ |


| Semester Eight |  |  |
| :--- | :--- | :--- |
| BA-404 | Corporate Finance | 3 |
| MA-425 | Mathematical Statistics | 3 |
| SELECT | General Elective | 3 |


| SELECT | General Elective | 3 |
| :--- | :--- | ---: |
|  | Credits | $\mathbf{1 2}$ |
| Total Credits | $\mathbf{1 2 0}$ |  |

# Mathematics Major: Concentration in Secondary Education 

## Admission Requirements for the Mathematics Major <br> Rigorous high school coursework and strong SAT scores with above average grades in mathematics and computer science courses. <br> Requirements for a Major in Mathematics

Students must complete a core of six mathematics courses and one computer science class and in addition select one of three concentrations.

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| MA-240 | Theory of Proof | 4 |
| MA-260 | Linear Algebra | 3 |
| MA-310 | Calculus III | 4 |
| MA-470 | Capstone Experience | 3 |
| Ancillary Course |  |  |
| CS-135 | Programming for Non-CS | 3 |
|  | Majors |  |
| Total Credits |  | $\mathbf{2 5}$ |

MA-200, MA-201 and MA-240 must be completed with grades of at least $C$ - by the end of the sophomore year. A student may only retake any of these courses at most once to increase a grade below C-; and may retake at most two of these courses to increase a grade below C -.

Requirements for the Concentration in Secondary Education

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-302 | Probability and Statistics | 3 |
| MA-309 | Topics in Mathematics <br> for Middle and Secondary <br> Teachers | 3 |
|  | Modern Geometry | 3 |


| MA-405 | Abstract Algebra | 3 |
| :--- | :--- | ---: |
| or MA-410 | Real Analysis |  |
| MA-360 | Number Theory | 3 |
| MA-303 | Mathematical Modeling | 3 |
| Total Credits |  | $\mathbf{1 8}$ |

It is recommended that students planning to take the Massachusetts Test for Educator Licensure (MTEL) for high school certification also complete a physics course. A secondary education minor, 4+ in Secondary Education or Post Baccalaureate initial license program through the education department are also required for licensure as a math teacher.

It is recommended that students planning to take the Massachusetts Test for Educator Licensure (MTEL) for high school certification also complete a physics course.

Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

## Department of Mathematics: Mathematics Major Concentration in Secondary Education Sample Timeline for Completion of Degree

| Year One |  |  |
| :--- | :--- | ---: |
| Semester One |  | Credits |
| MA-200 | Calculus I | 4 |
| CS-135 | Programming for Non-CS | 3 |
|  | Majors (QR) |  |
| EN-101 | College Writing I | 3 |
| LASC | First-Year Seminar (FYS) <br> (p. 50) | 3 |
| LASC | LASC Elective (GP) (p.51) | 3 |
|  | Credits | $\mathbf{1 6}$ |


| Semester Two |  |  |
| :--- | :--- | ---: |
| MA-201 | Calculus II | 4 |
| MA-240 | Theory of Proof | 4 |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 7}$ |

## Year Two

## Semester Three

MA-310
Calculus III
4

| MA-260 | Linear Algebra | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective (NSP) (p. 58) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| LASC | LASC Elective (DIV) | 3 |
|  | Credits | $\mathbf{1 6}$ |

## Semester Four

| MA-303 | Mathematical Modeling | 3 |
| :--- | :--- | ---: |
| MA-309 | Topics in Mathematics <br> for Middle and Secondary | 3 |
|  | Teachers | 4 |
| LASC | LASC Elective (NSP LAB) <br> (p. 57) | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
| SELECT | General Elective | $\mathbf{1 6}$ |

## Year Three

Semester Five

| MA-302 | Probability and Statistics | 3 |
| :--- | :--- | ---: |
| MA-360 | Number Theory | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Semester Six

| MA-340 | Modern Geometry | 3 |
| :--- | :--- | ---: |
| MA-405 | Abstract Algebra $^{1}$ | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Year Four

Semester Seven

| MA-410 | Real Analysis ${ }^{1}$ | 3 |
| :--- | :--- | ---: |
| MA-470 | Capstone Experience | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Semester Eight |  |  |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 2}$ |
|  | Total Credits | $\mathbf{1 2 2}$ |

${ }^{1}$ Only one of MA-405 or MA-410 is required.

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

Students should consult with their advisors about minoring in secondary education.

## Mathematics Major: Concentration in Statistics and Modeling

## Admission Requirements for the Mathematics Major

Rigorous high school coursework with above-average grades in mathematics and/or computer science courses.

## Requirements for a Major in Mathematics

Students must complete a core of six mathematics courses and one computer science class and in addition select one of three concentrations.

| Code | Title | Credits <br> Core Courses |
| :--- | :--- | ---: |
| MA-200 |  | $(\mathbf{2 5}$ <br> credits) |
| MA-201 | Calculus I | 4 |
| MA-240 | Theory of Proof | 4 |
| MA-260 | Linear Algebra | 4 |
| MA-310 | Calculus III | 3 |
| MA-470 | Capstone Experience | 4 |
| Ancillary Course |  | 3 |
| CS-135 | Programming for Non-CS | 3 |
| Total Credits |  |  |

MA-200, MA-201 and MA-240 must be completed with grades of at least $C$ - by the end of the sophomore year. A student may only retake any of these courses at most once to increase a grade below C-; and may retake at most two of these courses to increase a grade below C -.

Requirements for the Concentration in Statistics and Modeling

| Code | Title | Credits |
| :--- | :--- | ---: |
| CS-265 | Database Applications | 3 |
| MA-302 | Probability and Statistics | 3 |
| MA-303 | Mathematical Modeling | 3 |
| MA-304 | Data Analysis | 4 |
| MA-327 | Combinatorics and Graph | 3 |
| MA-380 | Theory |  |
| MA-410 | Probability | 3 |
| Total Credits | Real Analysis | 3 |

Department of Mathematics:
Mathematics Major Concentration in Statistics and Modeling Sample Timeline for Completion of Degree

| Year One |  | Credits |
| :--- | :--- | ---: |
| Semester One |  | 4 |
| MA-200 | Calculus I | 3 |
| CS-135 | Programming for Non-CS <br> Majors (QR) | 3 |
|  | College Writing I | 3 |
| EN-101 | First-Year Seminar (FYS) | 3 |
| LASC | (p. 50) |  |

Semester Two

| MA-201 | Calculus II | 4 |
| :--- | :--- | ---: |
| MA-240 | Theory of Proof | 4 |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | Credits | $\mathbf{1 7}$ |
| Year Two |  |  |
| Semester Three |  |  |

Semester Three

| MA-260 | Linear Algebra | 3 |
| :--- | :--- | ---: |
| MA-302 | Probability and Statistics | 3 |
| MA-310 | Calculus III | 4 |
| CS-265 | Database Applications | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 3 |
|  | Credits | $\mathbf{1 6}$ |

Semester Four

| MA-304 | Data Analysis | 4 |
| :--- | :--- | :--- |
| LASC | LASC Elective (NSP LAB) | 4 |
|  | (p. 57) |  |


| SELECT | General Elective | 3 |
| :---: | :---: | :---: |
| SELECT | General Elective | 3 |
|  | Credits | 14 |
| Year Three |  |  |
| Semester Five |  |  |
| MA-380 | Probability | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
| Semester Six |  |  |
| MA-303 | Mathematical Modeling | 3 |
| MA-327 | Combinatorics and Graph Theory | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
| Year Four |  |  |
| Semester Seven |  |  |
| MA-410 | Real Analysis | 3 |
| MA-470 | Capstone Experience | 3 |
| LASC | LASC Elective (DIV) | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
| Semester Eight |  |  |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 12 |
|  | Total Credits | 120 |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Mathematics Major: Concentration in Traditional Mathematics

## Admission Requirements for the Mathematics Major

Rigorous high school coursework with above-average grades in mathematics and/or computer science courses.

## Requirements for a Major in Mathematics

Students must complete a core of six mathematics courses and one computer science class and in addition select one of three concentrations.

| Code | Title | Credits <br> Core Courses |
| :--- | :--- | ---: |
|  |  | $(\mathbf{2 5}$ <br> credits) |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| MA-240 | Theory of Proof | 4 |
| MA-260 | Linear Algebra | 3 |
| MA-310 | Calculus III | 4 |
| MA-470 | Capstone Experience | 3 |
| Ancillary Course |  | 3 |
| CS-135 | Programming for Non-CS |  |

Total Credits
25

MA-200, MA-201 and MA-240 must be completed with grades of at least $C$ - by the end of the sophomore year. A student may only retake any of these courses at most once to increase a grade below C-; and may retake at most two of these courses to increase a grade below C-.

Requirements for a Concentration in Traditional Mathematics

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-320 | Ordinary Differential | 3 |
|  | Equations |  |
| MA-405 | Abstract Algebra | 3 |
| MA-410 | Real Analysis | 3 |

Nine additional credits of mathematics at the 300
or 400 level, to be chosen in consultation with the
academic advisor.
Total Credits
Department of Mathematics:
Mathematics Major Traditional
Concentration SampleTimeline
for Completion of Degree

| Year One |  |  |
| :--- | :--- | ---: |
| Semester One | Credits |  |
| MA-200 | Calculus I | 4 |
| CS-135 | Programming for Non-CS | 3 |
|  | Majors (QR) |  |
| EN-101 | College Writing I | 3 |
| LASC | First-Year Seminar (FYS) | 3 |
| (p. 50) | LASC Elective (NSP) (p. 58) | 3 |
|  | Credits | $\mathbf{1 6}$ |


| Semester Two |  |  |
| :--- | :--- | ---: |
| MA-201 | Calculus II | 4 |
| MA-240 | Theory of Proof | 4 |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
|  | Credits | $\mathbf{1 7}$ |

Year Two

## Semester Three

| MA-260 | Linear Algebra | 3 |
| :--- | :--- | ---: |
| MA-310 | Calculus III | 4 |
| LASC | LASC Elective (NSP LAB) | 4 |
|  | (p. 57) |  |
| LASC | LASC Elective (USW) (p. 60) | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
|  | Credits | $\mathbf{1 7}$ |


| Semester Four |  |  |
| :--- | :--- | ---: |
| MA-320 | Ordinary Differential <br> Equations 1 | 3 |
| MA | 300 Level Elective in Major | 3 |
| LASC | LASC Elective (DIV) | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Year Three

## Semester Five

| MA | 300 Level Elective in Major | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Semester Six

| MA-405 | Abstract Algebra | 3 |
| :--- | :--- | :--- |
| MA-320 | Ordinary Differential | 3 |
|  | Equations ${ }^{1}$ |  |

LASC LASC Elective (ICW) (p. 55) 3
SELECT General Elective 3
SELECT General Elective 3

Year Four
Semester Seven

| MA-410 | Real Analysis | 3 |
| :--- | :--- | ---: |
| MA-470 | Capstone Experience | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Semester Eight |  |  |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 2}$ |
|  | Total Credits | $\mathbf{1 2 2}$ |

${ }^{1}$ MA-320 is offered every other Spring.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Mathematics Minor

## Requirements for a Traditional Minor in Mathematics

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| MA-240 | Theory of Proof | 4 |
| Minimum of 6 credits at level of MA 260 or above <br> including 3 credits $a t ~ t h e ~ l e v e l ~ o f ~ M A ~ 300 ~ o r ~$ | 6 |  |
| above |  |  |

Total Credits

Dept. vote: 11-0-0

## Middle School Mathematics <br> Minor

Requirements for a Math for K-8 Minor

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-130 | Number and Operations for <br> Teachers | 3 |
| MA-131 | Patterns, Functions and <br> Algebra for Teachers | 3 |
| MA-132 | Geometry, Measurement, <br> Probability and Statistics for <br> Teachers | 3 |
|  | Calculus I |  |
| MA-200 | Theory of Proof | 4 |
| MA-309 | Topics in Mathematics <br> for Middle and Secondary <br> Teachers | 3 |
|  |  | 3 |

# Natural Science <br> Department of Earth, Environment and Physics 

See Environmental Science (p. 237).
Students with questions should meet with their advisor.

## Nursing

## Dr. Lillian R. Goodman Department of Nursing Accreditation

- Full approval status from the Commonwealth of Massachusetts Board of Registration in Nursing located at 239 Causeway St. Boston, MA 02114
- The baccalaureate degree program in nursing at Worcester State University is accredited by the Commission on Collegiate Nursing Education (ccneaccreditation.org)
- Member of the Massachusetts Association of Colleges of Nursing (MACN).


## General Information

## Admissions

The nursing program leads to a Bachelor of Science degree.

The program offers three tracks in the undergraduate major in nursing: Track One is for the student who is seeking initial baccalaureate education in the nursing profession. Track Two is for the student who has obtained licensure as a registered nurse who has graduated from an Associate Degree or Diploma accredited program and is pursuing a baccalaureate degree. Track Three is for the student who has obtained licensure as a licensed practical nurse and graduated from an accredited LPN program and is pursuing a baccalaureate degree.

## Mission Statement

The mission of the Dr. Lillian R. Goodman Department of Nursing is in keeping with the Worcester State University mission with the emphasis on developing the professional nurse who values lifelong intellectual growth and global awareness. The Department of Nursing fosters the professional growth of faculty and students through excellence in teaching and learning, rooted in scholarship and community service related to the discipline of nursing.

## Undergraduate Program Outcomes

The Department of Nursing prepares individuals for the roles and responsibilities of professional nursing through an undergraduate program leading to the Bachelor of Science degree.

The program outcomes of the undergraduate program are as follows:

1. Provide comprehensive, holistic care that is grounded in the biological sciences, the arts, and humanities.
2. Demonstrate an understanding of a variety of organizational structures, missions, visions, philosophies, and values.
3. Utilize current theoretical, scientific, and research knowledge toward evidence-based professional practice.
4. Demonstrate competence in utilizing information technology resources to advance professional practice
5. Comply with the Standards of Professional Nursing Practice.
6. Implement effective inter-professional communication when working with the health care team.
7. Implement evidence-based practice to guide the nursing process toward culturally sensitive, individual, and population-focused care.
8. Apply the professional standards of moral, ethical, and legal conduct to practice.
9. Demonstrate clinical competency, accountability, and ethical decision-making as an entry-level, novice professional nurse.

The nursing department has department-specific policies which are found in the Department of Nursing Undergraduate and Graduate Student Policy Handbooks. These policies include, but are not limited to, the following: progression and retention, classroom and clinical behavior, academic honesty, professional behavior, and CORI/drug screening/ health requirements. The department reserves the
right to modify policies and the curriculum during students' enrollment. Sufficient notice of any change will be provided to students.

Progression in the program requires a successful grade of $C$ or above in and completion of all pre and corequisite courses. A grade of 80 or above is required in all nursing (NU) courses and all clinical placements require a grade of "passing" (P).

## Good Moral Character Required for Licensure

In compliance with policy of the Massachusetts State Board of Nursing, all applicants/students are informed that completion of the BS degree does not guarantee admittance to the registered nurse licensure examination. According to Board Licensure Policy 00-01, any individual convicted of a felony or misdemeanor conviction and/or who has been disciplined by a licensure/certification body must be evaluated by the Board to determine a licensure applicant's compliance with the "good moral character" licensure requirement established at Massachusetts General Laws, Chapter 112, section 74 and 74A. Any individual who has been convicted of a felony or misdemeanor conviction, and/or who has been disciplined by a licensure/certification body, or whose ability to practice professional nursing is adversely affected by a physical or mental disability/ illness that may endanger the health and/or safety of a person should seek special advising prior to enrolling in any professional nursing program in Massachusetts. Individuals convicted of certain criminal convictions are permanently excluded from nurse licensure in Massachusetts.

All students in the nursing program will be required to have periodic Criminal Offender Record Information (CORI) checks requested by the department and/ or clinical agencies. This background check is a computerized search to determine if an individual has any convictions, outstanding warrants, or pending complaints. The information from these records is confidential and is destroyed when students graduate. Progression and mandatory clinical placements in the nursing program are contingent on a "no report" CORI check result. Clinical agencies may independently perform CORI checks on students and are not required to accept a student with a CORI report indicating that an offense exists. The department is not responsible for alternate clinical placements for students who cannot be placed in an agency related to a CORI offense report. Students
have an obligation to inform the department chair if any legal issues arise while in the program that are reportable on a CORI. For more information please see www.mass.gov/eohhs/gov/departments/dph/ programs/hcq/dhpl/nursing/licensing/good-moral-character-requirements-for-licensure.html

## Health Care Agency Requirements: Health, Drug Screening, and Other

Nursing students will be placed in a variety of health care settings. Each agency has requirements, which students must fulfill before they are allowed placement. This list may include, but is not limited to, the following; physical exam, immunizations, agencyspecific orientation, CORI, SORI, and drug screening. Progression and mandatory clinical placements in the nursing program are contingent on meeting all agency and departmental requirements. If a student is denied placement by an agency for any reason, including a positive drug or CORI report, the nursing department is not responsible for providing alternate clinical placements.

## Clinical Course Requirements for ALL Nursing Tracks:

All newly admitted students will be required to participate in an online documentation tracking system and provide the documentation listed below. Students are required to maintain compliance (updated documentation) for the entirety of the program. Information for accessing the online documentation tracking system will be provided by the clinical resource coordinator. Requirements that must be electronically submitted include:

1. Current, unencumbered license to practice as a Registered Nurse in the Commonwealth of MA.
2. CPR: American Heart Association BLS for Health Care Provider is the only accepted certification
3. Health Information Disclosure Form
4. Proof of Health Insurance
5. Physical Exam
6. Hepatitis B Immunization Series \& positive titer
7. MMR (Measles, Mumps, and Rubella). Documentation of 2 doses or positive titers for each
8. Varicella. Documentation of 2 doses or positive titer. History of disease is not accepted

## 9. Tuberculosis

A. All students with no past history of positive tuberculosis (TB) screening test must provide documentation of annual TB screening. Any student with a TB screening that is greater than 12 months old must provide baseline TB screening through IRGA (Interferon Gamma Release Assay) or a 2 -step TST (tuberculin Skin Test)
B. Students who have been vaccinated with BCG (Bacillus Calmette-Guerin) and are accustomed to obtaining chest $x$-rays are required to have a baseline TB screening. BCG is no longer considered to be a protective measure against TB or a contradiction to TB screening. Should the result be positive, a chest x-ray and a doctor's note is required to rule out active disease
10. Tdap (Tetanus/Diphtheria/Pertussis) vaccine, if it has been 5 years or more since the last dose of Td
11. Flu Vaccine for the current flu season or signed declaration (medical exclusion only)
12. Completed COVID-19 Vaccine \& Booster

1. Initial:

- Two doses of Pfizer or Moderna
- One dose of Janssen

2. Booster

- 5 months from last dose if Moderna or Pfizer
- 2 Months from last dose if Janssen

Please note that Clinical facilities may stipulate additional requirements for which documentation must be provided. Also, many of these requirements need to be updated annually or biannually. It is the students' responsibility to submit updated records.

1. Criminal Offender Record Investigation (CORI) is required for all students
2. Sexual Offender Record Investigation (SORI) and/or drug screening may be required by health care agencies
3. Professional liability insurance is renewed annually provided by Worcester State University

## Student Organizations

National Student Nurses' Association
This student-led organization is actively involved in outreach leadership development. Membership is mandatory for matriculated students in Track I and Track III programs.

## Sigma Theta Tau International: lota Phi Chapter-at-Large

The International Honor Society for Nurses provides leadership and scholarship in practice, education, and research to enhance the health of all people. Students are selected for membership into the local chapter of the lota Phi Chapter-at-Large based on academic and personal criteria.

## Requirements for Graduation

For the Bachelor of Science Degree with a major in Nursing students must complete:

- A minimum of 120 credits
- Each nursing course with a minimum grade of 80 and a "pass" in each clinical component
- All Nursing Department and Worcester State University requirements
- "Intent to Graduate" form

Transfer credits are determined by the transfer admission department and the nursing program administrator upon receipt of the student's official transcripts.

## Students enter as Freshmen (In the Fall of year 1)

- Must complete all courses listed in Year One in order to move to Sophomore level.

Nursing courses must be taken in sequence, but LASC courses can be taken at any time after freshmen year (unless otherwise specified).

- All nursing courses must have a minimum grade of 80 (B-)
- All prerequisites must have a minimum grade of C (see below)

The following courses must have a minimum grade requirement of C :

- Human Anatomy \& Physiology I and II with lab
- Survey of Chemistry with lab
- Medical Microbiology with lab
- English Composition I and II
- General Psychology
- Statistics I \& QR Elective
- Health and Nutrition
- Intro to Sociology

Students are required to meet with their department advisor during the fall and spring preregistration periods to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation. To receive a baccalaureate degree from Worcester State University (WSU), students must complete 30 of last 40 credits at WSU. WSU will transfer a maximum of 72 credits from an accredited associates degree college.

All first-time, full-time students will declare a major with a minor or a double major by the completion of their first 45 credits. Any minor can be chosen but there are many that fit well with the nursing major. Each student shall meet with an advisor to help guide them through the process of choosing a minor.

- Fast-Track Program (RN-to-MS) (p. 292)
- Track One (Undergraduate BS Program) (p. 292)
- Track Two (RN-to-BS Program) (p. 295)
- Track Three (LPN-to-BS Program) (p. 296)


## Faculty AY 2022-2023

Fatima Alzyoud, Assistant Professor (2022), B.S.N. Jordan University of Science and Technology; M.S.N. Jordan University of Science and Technology; Ph.D. University of Massachusetts Dartmouth

Lisa Cappabianca, Instructor (2021), A.D.N. Becker College; B.S.N. Western Governors University; M.S.N. Worcester State University; D.N.P.(c) University of Massachusetts Worcester

William Chadbourne, Instructor (2015), A.S.N. Mount Wachusett Community College; B.S.N. Worcester State College; M.S.N. Worcester State University; Ph.D.(abd) University of Massachusetts Lowell

Stephanie Chalupka, Professor (2008), A.S.N.
Quinsigamond Community College; B.S.N. Worcester State College; M.S.N. Boston College; Ed.D. University of Massachusetts Amherst

Amanda Cornine, Assistant Professor (2016), A.S.N. Central Maine Medical Center School of Nursing; B.F.A. University of Maine at Farmington; B.S.N. University of Massachusetts Boston; M.S.N. Framingham State University; Ph.D. University of Massachusetts Worcester

Theresa M. Khoury, Assistant Professor (2017), A.S. Bunker Hill Community College; A.S.N. Laboure College; B.S.N. Curry College; M.S.N. Framingham State College; D.N.P. Regis College

Angela Latter, Instructor (2017), B.S.N. Worcester State University; M.S.N. Worcester State University; Ph.D.(abd) University of Massachusetts Worcester

Carol McLaughlin, Visiting Instructor (2021), A.D.N. Quinsigamond Community College; B.S.N. Worcester State University; M.S.N. Worcester State University; Ph.D.(c) University of Massachusetts Worcester

Julia McNeil, Instructor (2018), B.S.N. Austin Peay State University; M.S.N. University of Phoenix; Ph.D. (abd) University of Connecticut

Michelle Paik Page, Program Administrator, Chairwoman, Assistant Professor (2014), B.S.N. Hawaii Pacific University; M.S.N. Framingham State University; D.N.P. Regis College

Ann-Marie Reynolds-Lynch, Associate Professor (2022), A.D.N. Becker College; B.S.N. Worcester State University; M.S.N. Worcester State University; D.N.P. University of Massachusetts Worcester

Sunny Ruggeri, Instructor (2022), B.S.
Physics SungKyunKwan University; M.S. Energy Science SungKyunKwan University; A.D.N. Bridgeport Hospital School of Nursing; M.S.N. Sacred Heart University; Ph.D. University of Missouri Kansas City

Janna Trombley, Instructor (2016), B.S.N. University of Vermont; M.S.N. Worcester State University; Ph.D. (abd) University of Massachusetts Worcester

## Courses

## NU-193 Special Topics in Nursing for First Year

 StudentsLASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Every year. 3 Credits
NU-200 Introduction to Professional Nursing I LASC Categories: NLL
Prerequisites: BI-161, BI-162, BI-206, CH-112, EN-101, EN-102
Prerequisites or Corequisite: NU-206 and HE-120. Nursing is introduced as an art and science focusing on critical thinking and decision making. clinical occurs in on-campus labs and long-term care facilities.
Fall only and every year. 5 Credits
NU-203 Transition from LPN to Professional Nursing Prerequisites: BI-161 BI-162 CH-112 EN-101 EN-102.
Prerequisites or Corequisite: BI-206 MA-150 PS-101
This course focuses on the transitions from the Licesnsed Practical Nurse to the Baccalaureate prepared Registered Nurse.
Fall only and every year. 1 Credit
NU-206 Principles of Pathophysiology and
Pharmocology I
Prerequisites: $\mathrm{BI}-161$ and $\mathrm{BI}-162$ and $\mathrm{CH}-112$ and BI-206 and EN-102
Prerequisites or Corequisite: NU-200 and HE-120
This course is a two semester continuation course which combines assessment of the human conditions which result in pathophysiology. The pharmacological therapies are integrated into the content.
Fall only and every year. 3 Credits
NU-210 Introduction to Professional Nursing II LASC Categories: NLL
Prerequisites: NU-200 NU-206 SO-100 PS-101
Corequisites: NU-216
Health of individuals and families is assessed. Communication, physical assessment, nursing process and other skills for professional practice are introduced. Medication calculations continue and the administration of medication is introduced. Lecture, an on-campus laboratory on physical assessment and off-campus clinical experiences in sub-acute care agencies are included in this course.
Spring only and every year. 5 Credits

## NU-213 Health Assessment (track lii)

Prerequisites: NU-203 and NU-206, Track III only. The LPN student will develop an increased knowledge base and skills related to performing a complete health assessment including a physical exam on the adult patient.
Spring only and every year. 3 Credits

## NU-216 Principles of Pathophysiology and Pharmacology II

Prerequisites: NU-200 PS-101 SO-100 NU-206
Corequisites: NU 210 must be completed as a corequisite.
The focus of this course is on the study of relationships of pathophysiology to pharmacotherapy. Students examine health problems across the lifespan which result in alterations in human functioning. The therapeutic pharmacological interventions which promote the reparative process are integrated into the content
Spring only and every year. 3 Credits
NU-309 Nursing Science I: Obstetrics (track I) LASC Categories: NLL
Prerequisites: NU-210 and NU-216
Students will apply the nursing process when caring for the childbearing family patients. Concepts of wellness, disease and health behaviors will be examined as the nursing process is operationalized in the care of the child-bearing family. Lecture and off-campus clinical experiences in maternal-child health nursing are included in this course.
Fall only and every year. 4.5 Credits
NU-310 Nursing Science I: Medical-Surgical Nursing (track I)
LASC Categories: NLL
Prerequisites: NU-210 and NU-216
Students will apply the nursing process when caring for the adult medical-surgical patients. Concepts of wellness, disease and health behaviors will be examined as the nursing process is operationalized in the care of adult medical-surgical patients. Lecture and off-campus clinical experiences in medicalsurgical nursing are included in this course.
Fall only and every year. 4.5 Credits

NU-311 Nursing Science I: Medical-Surgical Nursing (track lii)
LASC Categories: NLL
Prerequisites: NU-203, NU-213 and NU-216
Students will apply the nursing process when caring for adult medical-surgical patients. Concepts of wellness, disease and health behaviors will be examined as the nursing process is operationalized in the care of adult medical-surgical patients. Lecture and and off-campus clinical experiences in medicalsurgical nursing are included in this course. Fall only and every year. 3.5 Credits

## NU-312 Nursing Science I: Obstetrics Track III LASC Categories: NLL

Prerequisites: NU-203 and NU-213 and NU-216 Students will apply the nursing process when caring for the childbearing family patients. Concepts of wellness, disease and health behaviors will be examined as the nursing process is operationalized in the care of the child-bearing family. Lecture and off-campus clinical experiences in maternal-child health nursing are included in this course. Fall only and every year. 3.5 Credits
NU-315 Group Communication Seminar I
Prerequisites: NU-310 NU-430
Prerequisites or Corequisite: NU-340
The focus of this course is on effectively assessing, analyzing and problem solving the processes of group interactions with peers in the classroom in order to integrate this information into various health care settings.
Spring only and every year. 1 Credit

## NU-332 Transition to Baccalaureate Nursing LASC Categories: WAC

Prerequisites: EN-102 BI-161 BI-162 PS-101 SO-100 BI-206 MA-150.
Prerequisites or Corequisite: NU-333 and NU-334 This course focuses on nursing knowledge and theory as foundations of professional nursing. The elements of the Department of Nursing's conceptual nursing practice model are analyzed and examined in terms of nursing, diagnostic, and teaching-learning processes. Legal, ethical and environmental factors are studied in relation to their impact on person/ environment unity. The format is a hybrid or blended format.
Fall only and every year. 3 Credits

## NU-333 Nursing Informatics (track 2) <br> LASC Categories: QR

Prerequisites: MA-150 BI-161 BI-162 EN-101 EN-102
PS-101 SO-100 BI-206
Prerequisites or Corequisite: NU-332 and NU-334
Nursing Informatics combines knowledge and skills from nursing science, computer science, information science and cognitive science to design and implement automated systems that support the nursing process in the delivery of healthcare services. Students will explore their own role as nurses in implementing patient-centered care in an environment of advancing technology. Students will critically evaluate health information systems and their role in patient safety, safe medication administration, maintenance of patient privacy, data security, and efficacy of health care processes. Meets online.
Fall only and every year. 3 Credits

## NU-334 Selected Mechanisms of Disease and Related Pharmocology (track 2)

Prerequisites: MA-150 BI-161 BI-162 EN-101 EN-102 PS-101 SO-100 BI-206.
The focus of this course is on the study of the interrelatedness of pathophysiology and pharmacodynamics. This nursing focus examines health problems across the lifespan which produce alterations in human functioning and the subsequent response, along with the pharmacological management of these problems. Interventions focus on the reparative process. Meets in a blended/hybrid format.
Fall only and every year. 3 Credits
NU-340 Nursing Science li: Pediatrics (track I)
LASC Categories: NLL, DIV, DAC
Prerequisites: NU-210 NU-216 NU-309 NU-310
NU-430 Take EN-250 EN-202 or EN-102;
Prerequisites or Corequisite: NU-315
Concepts of wellness, disease, and health behavior are examined as the nursing process is operationalized in the care of acutely ill pediatric patients. Lecture and an off-site clinical experience are included in this course.
Spring only and every year. 4.5 Credits

## NU-342 Health Assessment (track 2) <br> LASC Categories: NLL

Prerequisites: NU-332 and NU-333 and NU-334
Corequisites: NU-430 and NU-432
The nursing process is used as the organizing framework to identify person/environment unity of individuals. A variety of skills and theories relevant to professional nursing practice are utilized. The student will develop an increased knowledge base and skills related to performing a complete physical examination of the adult and pediatric client. The format is a weekly three-hour lab/lecture on campus. Spring only and every year. 4 Credits
NU-344 Nursing Science II: Medical/Surgical Nursing (Track III)
LASC Categories: NLL
Prerequisites: NU-203 and NU-216 and NU-213 and NU-311 and NU-312 and NU-430
Concepts of wellness, disease, and health behaviors are examined as the nursing process is operationalized in the care of the acutely ill medicalsurgical patients. Lecture and an off-campus clinical experience are included in this course.
Spring only and every year. 3.5 Credits
NU-345 Nursing Science II: Medical/Surgical Nursing (track I)
LASC Categories: NLL
Prerequisites: NU-210 and NU-216 and NU-309 and NU-310 and NU-430
Concepts of wellness, disease, and health behavior are examined as the nursing process is operationalized in the care of the acutely ill medicalsurgical patients. Lecture and an off-site clinical experience are included in this course.
Spring only and every year. 4.5 Credits
NU-346 Nursing Science li: Pediatrics (track lii)
LASC Categories: NLL, DIV, DAC
Prerequisites: NU-203 and NU-213 and NU-216 and
NU-311 and NU-312 and NU-430
Concepts of wellness, disease, and health behavior are examined as the nursing process is operationalized in the care of pediatric patients. Lecture and an off-site clinical experience are included in this course.
Spring only and every year. 3.5 Credits

## NU-357 Global Perspectives in Health <br> LASC Categories: GP, ICW

Interactive course preparing students for global service immersion experience in partnership with host country.
Other or on demand. 3 Credits

## NU-408 Directed Study: Nursing

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits
NU-415 Group Communication Seminar II
Prerequisites: NU-315 and NU-430
Prerequisites or Corequisite: NU-440
The independent and interdependent role of the professional nurse as an agent of change is examined.
Fall only and every year. 1 Credit
NU-430 Research Seminar in Nursing (track I and Track III)
LASC Categories: QAC
Prerequisites: NU-210, NU-216 and MA-150. Or take NU-203, NU-213 and MA-150.
Prerequisites or Corequisite: NU-310 (Track 1
Student) or NU-311 (Track III Student)
The focus is on the development of the student as a consumer of nursing research and the utilization of research findings in practice.
Fall only and every year. 3 Credits

## NU-431 Research Seminar in Nursing (Track II) <br> LASC Categories: QAC

Prerequisites: NU-332 and NU-333 and NU-334 and MA-150
The focus is on the development of the student as a consumer of nursing research and the utilization of research findings in practice.
Spring only and every year. 3 Credits

[^3]NU-440 Nursing Science III: Community/Public Health Nursing (Track I and Track III)
LASC Categories: NLL
Prerequisites: 1 group \# Take NU-309 NU-310 NU-315
NU-340 NU-345 NU-430; \# Take NU-311 NU-312 NU-430 NU-344 NU-346;
Students practice professional nursing concepts and identify multiple aspects of community and public health issues. Critical thinking and decision making skills are developed and applied. Lecture and offcampus clinical experiences are included in this course.
Fall only and every year. 4 Credits
NU-441 Nursing Science III: Mental Health Nursing (Track I and Track III)
LASC Categories: NLL
Prerequisites: Track I-take NU-309 and NU-310 and NU-315 and NU-340 and NU-430 and NU-345. Track III-take NU-311 and NU-312 and NU-346 and NU-430 and NU-344.
Students practice professional nursing concepts and identify multiple aspects of mental health issues. Critical thinking and decision making skills are developed and applied. Lecture and off-campus clinical experiences are included in this course. Fall only and every year. 4 Credits
NU-450 Leadership in Nursing
LASC Categories: WAC
Prerequisites: NU-415 NU-440
Corequisites: NU-460 NU-470 as a required corequisite
This course focuses on theories of leadership, management, delegation and supervision, which supports the knowledge skills and values integrated by the nurse into professional leadership behavior. Current trends in nursing and in research relating to nursing leadership and management are explored. Spring only and every year. 3 Credits
NU-452 Professional Nursing Leadership and Organization (Track II)
Prerequisites: NU-342 and NU-430 and NU-432
Prerequisites or Corequisite: NU-472 and NU-473
Hybrid Format.
Fall only and every year. 3 Credits

## NU-460 Nursing Science IV

Prerequisites: NU-415 NU-440
Corequisites: NU-450 NU-470 as required corequisite The focus is on the study and practice of nursing directed at health promotion/restoration of clients with chronic person/environment disunity. Complex health problems are studied in classrooms and clinical settings.
Spring only and every year. 3 Credits

## NU-470 Nursing: Capstone

LASC Categories: CAP, NLL
Prerequisites: NU-415 NU-440
Corequisites: NU-450 NU-460
This 7 credit course focuses on EB Practice in which students will demonstrate the integration and synthesis of all previous learning in the nursing major. Complex health problems will be studied in the clinical setting. Preceptorship opportunities are available to eligible students.
Spring only and every year. 7 Credits

## NU-472 Community/Public Health Nursing (Track II) LASC Categories: CAP, NLL <br> Prerequisites: NU-342 and NU-430 and NU-432 <br> Prerequisites or Corequisite: NU-452 and NU-473 <br> The focus of this course is on the study and practice of community-oriented nursing. Theories and environmental factors which influence the health of communities are analyzed. The format is a four-hour lecture/seminar. Hybrid format. <br> Fall only and every year. 6 Credits

NU-473 Health Policy (Track II)
Prerequisites: NU-342 and NU-430 and NU-432
Corequisites: NU-452 and NU-472
This course introduces the basic framework for health policy with focus on research, review and analysis of the major components of the US health policies in health care. Online/blended format. Fall only and every year. 3 Credits

## NU-480 Independent Study in Nursing

Opportunities for students to engage in special studies in nursing according to individual interests and faculty availability.
Fall and Spring and every year. 1-6 Credits

## Program Learning Outcomes

- Provide comprehensive, holistic care that is grounded in the biological sciences, arts, and humanities.
- Demonstrate an understanding of a variety of organizational structures, missions, visions, philosophies, and values.
- Utilize current theoretical, scientific, and research knowledge toward evidence based professional practice.
- Demonstrate competence in utilizing information technology resources to advance professional practice.
- Comply with the Standards of Professional Nursing Practice.
- Implement effective inter-professional communication when working with the health care team.
- Implement evidence based practice to guide the nursing process toward culturally sensitive, individual, and population focused care.
- Apply the professional standards of moral, ethical, and legal conduct to practice.
- Demonstrate clinical competency, accountability, and ethical decision making as a baccalaureate nurse.


## Fast-Track Program (RN-toMS)

The RN-to-MS Fast Track Program allows 6 graduate credits ( 500 Level) to be taken during the program to count toward both the Bachelor of Science and the Master of Science in Nursing degrees. These graduate credits may be completed when the RN meets the criteria for the Fast-Track program, completes an application for admission to the RN-toMS Fast-Track Program, and receives final approval by the RN to BS coordinator. The RN-to-MS FastTrack application process for the Worcester State On Campus program must be completed in the fall semester of the RN-to-BS studies (to the Graduate Nursing Program through the Graduate School).

Fast-track students must take courses in the M.S. program the semester after completing the B.S. degree. Otherwise 500 Level courses taken in the senior year will count only towards the RN-to-BS degree unless they are in excess of the credits required for the B.S. degree. All undergraduate degree requirements must be completed before students are permitted to take MS level courses beyond NU 530 and NU-551. Only course grades of B- or above will be counted towards the MS degree.

## Track One (Undergraduate BS Program)

## Track One Courses <br> Prerequisite courses to be successfully completed with a C or above by the end of Spring (May 30th) semester first-year:

| Code | Title | Credits |
| :--- | :--- | ---: |
| BI-161 | Human Anatomy and | 8 |
| \& BI-162 | Physiology I <br> and Human Anatomy and <br> Physiology II |  |
|  | Survey of Chemistry | 4 |
| CH-112 | College Writing I |  |
| EN-101 | and College Writing II | 6 |
| \& EN-102 | Medical Microbiology | 4 |
| BI-206 |  | 4 |

Corequisite courses to be successfully completed with a C or above by the end of Fall (December 31 st) semester sophomore year:

| Code | Title | Credits |
| :--- | :--- | ---: |
| PS-101 | General Psychology | 3 |
| SO-100 | Introduction to Sociology | 3 |

Corequisite courses to be successfully completed with a C or above by the end of Spring (May 30th) semester sophomore year:

| Code | Title | Credits |
| :--- | :--- | ---: |
| HE-120 | Health and Nutrition | 3 |
| MA-150 | Statistics I | 3 |
| QR Elective |  | 3 |

Progression in the nursing majors depends upon satisfactory completion of all prerequisite, corequisite, and nursing courses. Satisfactory is defined by grade requirements and progression policies of the nursing department for those individual courses required for program completion.

Satisfactory is defined as:

1. " $C$ " ( $\geq$ to $74 \%$ ) or higher in a pre- or corequisite non-NU course, and
2. "B-" ( $\geq 80 \%$ ) or higher in every NU course, and
3. A "pass" in the clinical component of each NU course is required. If a "pass" is not achieved in the clinical component, this will result in a failure for the entirety of that NU course (grade of $E$ on the transcript) and dismissal from the program. Progression in the nursing major is dependent upon the student maintaining a minimum grade of $80 \%$ in each nursing course and simultaneously meeting the satisfactory performance/objective requirements of each clinical portion of a course.

Repeating any nursing course or any pre- or corequisite course is a one-time option per the Department of Nursing. A failure of any combination of two prerequisite, corequisite, or nursing courses will result in a dismissal from the Nursing Program and will require a change of major.

## Required Nursing Courses: 60 credits - All Nursing courses must be taken in sequence.

| Code | Title | Credits |
| :---: | :---: | :---: |
| NU-200 | Introduction to Professional Nursing I | 5 |
| NU-206 | Principles of Pathophysiology and Pharmocology I | 3 |
| NU-210 | Introduction to Professional Nursing II | 5 |
| NU-216 | Principles of Pathophysiology and Pharmacology II | 3 |
| NU-309 | Nursing Science I: Obstetrics (track I) | 4.5 |
| NU-310 | Nursing Science I: Medical- <br> Surgical Nursing (track I) | 4.5 |
| NU-315 | Group Communication Seminar I | 1 |
| NU-340 | Nursing Science li: <br> Pediatrics (track I) | 4.5 |
| NU-345 | Nursing Science II: Medical/ Surgical Nursing (track I) | 4.5 |
| NU-415 | Group Communication Seminar II | 1 |
| NU-430 | Research Seminar in Nursing (track I and Track III) | 3 |


| NU-440 | Nursing Science III: <br> Community/Public Health <br> Nursing (Track I and Track <br> III) | 4 |
| :--- | :--- | ---: |
|  | Nursing Science III: Mental <br> Health Nursing (Track I and | 4 |
| NU-441 | Track III) |  |

Students must achieve a minimum grade of 80 in each nursing course and each section of the course when a course has two distinct class/ clinical components (NU-309, NU-310, NU-340, NU-345, NU-440,NU-441). The Department of Nursing has additional policies and procedures which are binding for nursing majors. Included in these policies are standards for progression in the nursing major. They are found in the Nursing Department's Student Handbook. All students receive a copy of the handbook at the start of the academic year and sign a note of receipt.

Nursing courses, prerequisite and corequisite courses may not be taken pass/fail and must meet the grade listed above in order to progress in program.

## Transfer Students

Students taking general education courses in another college or university are required to contact the Worcester State University Admissions Office regarding matriculation and transfer of credits. Transfer students are accepted to the nursing major on a very limited, space-available basis. Students are admitted into the freshman or sophomore class level based on required course completion grades and space availability.

All transfer student applicants for Track One who have previously been enrolled in a nursing program in another college/university must submit, as part of their application, a letter from the dean or director of the nursing program indicating that they left in good standing and were eligible for readmission to that program.

Transfer students may only apply two (2) times for admission into the nursing major.

## Dr. Lillian R. Goodman Department of Nursing Sample Timeline for Track I

| Course | Title | Credits |
| :---: | :---: | :---: |
| Year One |  |  |
| Semester One |  |  |
| EN-101 | College Writing ${ }^{1}$ | 3 |
| BI-161 | Human Anatomy and Physiology I | 4 |
| CH-112 | Survey of Chemistry (NSP) | 4 |
| FYS | First-Year Seminar (p. 50) | 3 |
|  | Credits | 14 |


| Semester Two |  |  |
| :---: | :---: | :---: |
| EN-102 | College Writing II ${ }^{1}$ | 3 |
| BI-162 | Human Anatomy and Physiology II (NSP) | 4 |
| BI-206 | Medical Microbiology (NSP) | 4 |
| $\begin{aligned} & \text { SO-100 } \\ & \quad \text { or PS-101 } \end{aligned}$ | Introduction to Sociology (HBS) $\qquad$ | 3 |


| LASC Elective (Constitution) | 3 |
| ---: | ---: |
| Credits | 17 |

Year Two

| Semester Three |  |  |
| :--- | :--- | ---: |
| NU-200 | Introduction to Professional <br> Nursing I | 5 |
| NU-206 | Principles of <br> Pathophysiology and <br> Pharmocology I | 3 |
| HE-120 | Health and Nutrition (ICW) | 3 |
| Elective 2 | Introduction to Sociology <br> (HBS) <br> SO-100 <br> or PS-101 |  2 <br>  Credits |


| Semester Four |  |  |
| :--- | :--- | ---: |
| NU-210 | Introduction to Professional <br> Nursing II | 5 |
|  | Principles of <br> NU-216 | 3 |
|  | Pathophysiology and |  |
| MA-150 | Statistics I (QR) ${ }^{3}$ | 3 |
| LASC Elective (QR) (p. 59) | 3 |  |
|  | Credits | $\mathbf{1 4}$ |

## Year Three

## Semester Five

| NU-309 | Nursing Science I: Obstetrics <br> (track I) | 4.5 |
| :--- | :--- | :--- |


| NU-310 | Nursing Science I: Medical- <br> Surgical Nursing (track I) | 4.5 |
| :--- | :--- | :--- |
|  |  |  |

NU-430 Research Seminar in Nursing 3
(track I and Track III) (QRAC)

| LASC Elective $^{4}$ | 3 |  |
| :--- | ---: | ---: |
|  | Credits | 15 |

## Semester Six

| NU-340 | Nursing Science li: <br> Pediatrics (track I) (DAC) | 4.5 |
| :---: | :---: | :---: |
| NU-345 | Nursing Science II: Medical/ Surgical Nursing (track I) | 4.5 |
| NU-315 | Group Communication Seminar I | 1 |
| LASC Elective ${ }^{4}$ |  | 3 |
| LASC Elective ${ }^{4}$ |  | 3 |

## Year Four

Semester Seven

| NU-440 | Nursing Science III: <br> Community/Public Health <br> Nursing (Track I and Track <br> III) | 4 |
| :--- | :--- | ---: |
|  | Nursing Science III: Mental <br> Health Nursing (Track I and | 4 |
| NU-441 | Track III) |  |
|  | Group Communication <br> Seminar II | 1 |
| LASC Arts Elective ${ }^{5}$ | 3 |  |
| Free Elective ${ }^{5}$ |  | 3 |
|  | Credits | $\mathbf{1 5}$ |


| Semester Eight |  |  |
| :--- | :--- | ---: |
| NU-460 | Nursing Science IV | 3 |
| NU-450 | Leadership in Nursing | 3 |
| NU-470 | Nursing: Capstone | $\mathbf{7}$ |
|  | Credits | $\mathbf{1 3}$ |
|  | Total Credits | $\mathbf{1 2 0}$ |

${ }^{1}$ EN-101 \& EN-102 satisfies LASC writing.
${ }^{2}$ Pick 2 credit elective of your choice semester 3
${ }^{3}$ MA-150 required Accuplacer score of 4 or higher
${ }^{4}$ Junior Year Pick one (3 credit) course in: GP, TLC, USW
${ }^{5}$ Senior Year Fall needs: 1 Creative Arts \& Need one 3 credit Free Elective.
All LASC Electives should be complete by end of semester 7 .

All Sciences and pre-requisites must be completed by May 30th with a grade of $C$ or better to progress to Sophomore Year.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Track Two (RN-to-BS Program)

## Admission Process

All students applying to the RN-BS program must hold a current unencumbered license to practice as an RN in the Commonwealth of Massachusetts. The RN-BS student applying to Worcester State University as a transfer student can receive up to 72 credits transferable from an accredited associate degree college and a maximum of 90 credits from four year colleges and universities. Students with a BA or BS degree in another major only need to complete the nursing courses and the prerequisite courses for the nursing major. Admission requirements include official high school and college transcripts and a minimum 2.5 GPA. Associate degree graduates and diploma graduates earn 29 nursing credits for NCLEXRN licensure.

All Track Two courses are offered in a hybrid format (in-class and online).

The full-time day program offered at WSU is a three semester nursing program. Students are admitted into a cohort and class will be held either Tuesday or Thursday. Class times are scheduled 9am-4pm.

All applicants must complete the required components of the admission process prior to May 1 st for consideration of admittance for that September. Students who wish to matriculate into the program and begin taking prerequisites or corequisites early, may be admitted as an early admission by completing the application process. However, students may not enter the nursing program
of courses without first having completed all prerequisites (including statistics) with a grade of $C$ or higher.

Students in the Quinsigamond Community CollegeWorcester State University Mass Transfer Block
Pathway will adhere to the QCC-WSU articulation agreement.

## Track Two Prerequisite Courses

These courses may be transferred if the student has previously taken the course (per college transfer policy) or may be taken at Worcester State University. Prerequisite, corerequisite, and Nursing courses may not be taken pass/fail.

| Code | Title | Credits |
| :---: | :---: | :---: |
| EN-101 <br> \& EN-102 | College Writing I and College Writing II ${ }^{1}$ | 6 |
| MA-150 | Statistics I ${ }^{23}$ | 3 |
| So-100 | Introduction to Sociology | 3 |
| PS-101 | General Psychology | 3 |
| BI-161 <br> \& BI-162 | Human Anatomy and Physiology I and Human Anatomy and Physiology II | 8 |
| BI-204 <br> or BI-206 | Microbiology <br> Medical Microbiology | 4 |

${ }^{1}$ EN-101 may be waived.
${ }^{2}$ Prerequisite for NU-431
${ }^{3}$ A passing grade for the WSC Accuplacer is required by for this course.

The Worcester State University Nursing program requires 31 credits. All nursing courses must be taken in sequence. All courses are hybrid unless otherwise noted. Students must achieve a minimum grade of 80 in each nursing course. Only one nursing course may be repeated to obtain the minimum grade or required GPA and must be repeated within the 2 years.

## Sample RN-BS Curriculum - WSU Campus (Full-time Blended/Day)

| Code | Title | Credits <br> Semester I |
| :--- | :--- | ---: |
|  |  | (9 <br> credits) |
| NU-332 | Transition to Baccalaureate | 3 |



Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Track Three (LPN-to-BS Program)

The LPN to BS in Nursing Track III Program is designed for those students who have graduated from an accredited Licensed Practical Nursing Program with an unencumbered LPN license. The program is designed to transition the Licensed Practical Nurse (LPN) to the role of the baccalaureate prepared Registered Nurse. Graduates of this program are prepared to meet societal healthcare
needs in a variety of settings. Respect for diversity and social responsibility as well as a commitment to excellence in nursing care are emphasized.

## Admissions Criteria

Final deadline for application is February 1

- Students accepted for Fall of each year
- Current unencumbered LPN License
- Graduate from an accredited LPN Program with Cumulative Grade Point Average (GPA) > 2.5
- Successful completion of the Nursing Acceleration Challenge Exams (NACE I, PN-RN)

| Test Name $\quad$ Minimum Score Required |
| :--- |
| Foundations of Nursing 72 |
| Nursing Care of the Child 62 |
| Nursing Care for the 62 |
| Childbearing Family |
| Registration and test dates can be found at https:// |
| ondemand.questionmark.com/400030/ext/ |
| nIntesting/. |
| Official transfer credit evaluations are conducted by |
| the Registrar after admission to the University. |



## Requirements for the Track Three (LPN-to-BS Program)

| Code | Title | Credits |
| :--- | :--- | ---: |
| NU-203 | Transition from LPN to | 1 |
|  | Professional Nursing |  |
| NU-206 | Principles of |  |
|  | Pathophysiology and <br> Pharmocology I | 3 |
|  |  |  |


| NU-213 | Health Assessment (track lii) | 3 |
| :---: | :---: | :---: |
| NU-216 | Principles of Pathophysiology and Pharmacology II | 3 |
| NU-311 | Nursing Science I: MedicalSurgical Nursing (track lii) | 3.5 |
| NU-312 | Nursing Science I: Obstetrics Track III | 3.5 |
| NU-344 | Nursing Science II: Medical/ Surgical Nursing (Track III) | 3.5 |
| NU-346 | Nursing Science li: <br> Pediatrics (track lii) | 3.5 |
| NU-430 | Research Seminar in Nursing (track I and Track III) | 3 |
| NU-440 | Nursing Science III: <br> Community/Public Health <br> Nursing (Track I and Track <br> III) | 4 |
| NU-441 | Nursing Science III: Mental Health Nursing (Track I and Track III) | 4 |
| NU-450 | Leadership in Nursing | 3 |
| NU-460 | Nursing Science IV | 3 |
| NU-470 | Nursing: Capstone | 7 |
| HE-120 | Health and Nutrition | 3 |
| SO-100 | Introduction to Sociology | 3 |
| Total Credits |  | 54 |

Sample Timeline for Track Three (LPN-to-BS Program)

| Year One |  |  |
| :---: | :---: | :---: |
| Semester One |  | Credits |
| NU-206 | Principles of Pathophysiology and Pharmocology I | 3 |
| NU-203 | Transition from LPN to Professional Nursing | 1 |
| SO-100 | Introduction to Sociology | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
|  | Credits | 10 |
| Semester Two |  |  |
| NU-216 | Principles of Pathophysiology and Pharmacology II | 3 |
| NU-213 | Health Assessment (track lii) | 3 |
| HE-120 | Health and Nutrition | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
|  | Credits | 12 |


| Year Two |  |  |
| :---: | :---: | :---: |
| Semester Three |  |  |
| NU-311 | Nursing Science I: MedicalSurgical Nursing (track lii) | 3.5 |
| NU-312 | Nursing Science I: Obstetrics Track III | 3.5 |
| NU-430 | Research Seminar in Nursing (track I and Track III) | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
| SELECT | Elective | 3 |
|  | Credits | 16 |
| Semester Four |  |  |
| NU-344 | Nursing Science II: Medical/ Surgical Nursing (Track III) | 3.5 |
| NU-346 | Nursing Science li: <br> Pediatrics (track lii) | 3.5 |
| LASC: | LASC Elective (QR) (p. 59) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| SELECT | Elective (if needed) | 3 |
|  | Credits | 16 |
| Year Three |  |  |
| Semester Five |  |  |
| NU-440 | Nursing Science III: Community/Public Health Nursing (Track I and Track III) | 4 |
| NU-441 | Nursing Science III: Mental Health Nursing (Track I and Track III) | 4 |
| SELECT | Elective (if needed) | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
|  | Credits | 14 |
| Semester Six |  |  |
| NU-460 | Nursing Science IV | 3 |
| NU-450 | Leadership in Nursing | 3 |
| NU-470 | Nursing: Capstone | 7 |
|  | Credits | 13 |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Occupational Studies Department of Occupational Therapy

The Bachelor of Science in Occupational Studies program offers a stimulating and challenging curriculum that blends professional coursework with a traditional liberal arts education. Students begin by learning the philosophy and founding principles of occupational therapy along with acquiring a thorough understanding of biological, psychological, and social aspects of human beings. In upper-division coursework, students learn to apply this knowledge and develop occupational therapy clinical reasoning skills for evaluation of and intervention with persons across the lifespan. Between the junior and senior years, students with good academic standing are eligible to apply for admittance to the Master of Occupational Therapy Program. Acceptance and completion of the undergraduate program in Occupational Studies does not guarantee admission into the Master of Occupational Therapy Program. Only graduates of the Master of Occupational Therapy Program are eligible to sit for the national examination administered by the National Board for Certification in Occupational Therapy.

A passing score on this examination allows the graduate to apply for a license to practice that is required by most states within the United States, including Massachusetts. For further information regarding certification contact: NBCOT, One Bank Street, Suite 300, Gaithersburg, Maryland, 20878; (301) 990-7979; www.nbcot.org.

The combined Bachelor of Science in Occupational Studies and Master of Occupational Therapy Program is accredited by the Accreditation Council for Occupational Therapy Education. For further information regarding accreditation contact: ACOTE; 6116 Executive Boulevard, Suite 200, North Bethesda, MD 20852-4929. ACOTE's telephone, c/o AOTA, is (301) 652-AOTA; www.acoteonline.org.

## Program Application Process

Application to enter the Bachelor of Science in Occupational Studies Program as a first-year student is made through the Admissions Office at the
time of application to Worcester State University. Students are encouraged to apply early due to limited enrollment.

First-year students are admitted on the basis of high school rank and coursework relevant to the major.

Any individual who has been convicted of a felony or misdemeanor involving an act likely to affect professional practice should meet with the Department Chair prior to applying to the program. Prior incidents may affect eligibility for fieldwork, certification, and employment. A CORI check and/or drug test is typically required prior to Fieldwork Level I and Level II placement.

## Policies

- All undergraduate occupational therapy prerequisite and major courses must be completed with a grade of $C$ or better.
- Courses must be taken in the prescribed sequence unless an exception is granted by the Department Chair.
- All undergraduate and graduate level coursework must be successfully completed before beginning Level II Fieldwork.
- The second Level II Fieldwork experience must be completed within 12 months of academic coursework.
- Eligibility to sit for the national certification examination requires successful completion of six-months of Level II Fieldwork.
- The Occupational Therapy Department has a student handbook that is updated yearly and contains department-specific policies. Each student is responsible for adhering to the polices. The Department reserves the right to modify policies and curriculum during a student's enrollment. Sufficient notice of any changes will be provided to the students.
- Bachelor of Science Occupational Studies Program (p. 301)


## Faculty

Sarah E. DiMeo, Assistant Professor (2020), B.S., Utica College of Syracuse University; M.S., Tufts University; Ph.D., Texas Woman's University

Joanne Gallagher Worthley, Professor (1995), B.S., Quinnipiac College; M.S., Florida International University; Ed.D., Johnson \& Wales University

Ellyn Schmalzer, Visiting Instructor (2021), B.S., M.A., Worcester State University

Tanya Trudell, Department Chair, Assistant Professor (2015), B.A., Eastern Connecticut State University; M.O.T., Worcester State University; Ed.D., Johnson \& Wales University

Jamie Wronka, Visiting Instructor (2022), B.S.O.T., M.S.O.T., University of New Hampshire

## Courses

OT-101 Introduction of Occupational Studies of Wellness/Disability
Introduction to occupational Therapy history, philosophy, wellness/illness/disability continuum, contexts, occupations, occupational performance, professionalism, and clinical reasoning. Fall only and every year. 3 Credits

## OT-102 Occupational Studies of Wellness/ Disability

 GroupsExploration of professional theme: philosophy, wellness/illness/disability continuum using groups, occupational performance and activity, professionalism and clinical reasoning. Spring only and every year. 3 Credits
OT-193 First Year Seminar. Occupational Therapy LASC Categories: FYS
Introductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
Every year. 3 Credits

## OT-203 Occupational Therapy Theories

Investigation of theories to occupational therapy, related to occupation, individual and context. Includes current and developing models of practice. Fall only and every year. 3 Credits

## OT-211 Kinesiology Lab

LASC Categories: NLL
Prerequisites or Corequisite: $\mathrm{BI}-271$
Lab experiences and discussions will integrate biological knowledge of movement with occupational therpy concepts of performance and function. This course will provide students with the knowledge and skills necessary to evaluate range of motion, muscle strength, and posture. Functional abilities needed in daily activities will be analyzed.
Spring only and every year. 1 Credit

## OT-301 Psychosocial Wellness/Disability Prerequisites or Corequisite: OT-302 and OT-304

Historical themes of the profession, wellness/illness/ disability continuum, occupation and context as it applies to psychosocial performance in life roles. Fall only and every year. 2 Credits
OT-302 Psychosocial Therapeutic Approaches Prerequisites or Corequisite: OT-301 and OT-304
Occupational performance and context, professionalization and clinical reasoning will be applied to practice models when addressing psychosocial health and illness.
Fall only and every year. 3 Credits
OT-304 Psychosocial Therapeutic Approaches Lab Prerequisites or Corequisite: OT-301 and OT-302
Directed observation and participation in the clinical application of theories and methods if occupational therapy intervention with psychosocial disorders. Includes Fieldwork I.
Fall only and every year. 2 Credits

## OT-312 Physiological Wellness/Disability

Prerequisites or Corequisite: OT-313 and OT-318 as co-requisites
Historical themes of the profession, wellness/illness/ disability continuum, occupation and context as it applies to physiological performance in life roles. Spring only and every year. 2 Credits

## OT-313 Physiological Therapeutic Approaches

Occupational performance and context, professionalism, and clinical reasoning will be applied to practice models when addressing physiological health and illness.
Spring only and every year. 3 Credits

## OT-317 Research I

Prerequisites: MA-150 or PS-275
Course examines measurement issues, concerns and tools; and why and how to use evidence in practice. Fall only and every year. 3 Credits

OT-318 Physiological Therapeutic Approaches Lab Directed observation and participation in the clinical application of theories and methods of occupational therapy intervention with physiological disorders. Includes Fieldwork I.
Spring only and every year. 2 Credits

## OT-400 Special Topics in Occupational Therapy

Selected areas of interest to students and instructor.
Topic, prerequisites and instructor are announced in advance.
Other or on demand. 3 Credits

## OT-401 Occupational Performance \& Context for Older Adults

Prerequisites or Corequisite: OT-402, OT-403 and OT-404
The wellness/illness/disability continuum will be applied to occupational performance in life roles for the older adult population.
Fall only and every year. 2 Credits
OT-402 Therapeutic Approaches for Older Adults Prerequisites or Corequisite: OT-401 and OT-403 Occupational therapy strategies for older adults across the wellness/illness/disability continuum with emphasis on occupational performance/context and clinical reasoning.
Fall only and every year. 3 Credits

## OT-403 Ther App Lab for Older Adults

Prerequisites or Corequisite: OT-401 and OT-402
Experiential learning with asessments and intervention approaches for older adults. Includes Fieldwork I experience in various sites off-campus. Fall only and every year. 2 Credits

OT-404 Assistive Technology I
Prerequisites or Corequisite: OT-401, OT-402 and OT-403
Assistive technology related to the needs of the adult population will be explored.
Fall only and every year. 3 Credits

## OT-407 Research II

Prerequisites: OT-317
Course examines research design, quantitative and qualitative, human subject protection and program evaluation. Students will develop a research proposal.
Fall only and every year. 3 Credits
OT-408 Directed Study
1-3 Credits

OT-411 Occupational Therapy International Service Learning Experience
Selected areas of interest to students and instruc Other or on demand. 2 Credits

OT-421 Occupational Performance and Context for Children/Adolescents
Prerequisites or Corequisite: OT-423, OT-424 and OT-427
Wellness/illness/disability continuum will be applied to performance in the life roles related to the child and adolescent populations.
Spring only and every year. 2 Credits
OT-423 Therapeutic Approaches Lab for Children/ Adolescents
Prerequisites or Corequisite: OT-421
Directed observation and participation in the clinical application of theories and methods of occupational therapy intervention with the pediatric population. Includes observation in various sites off-campus. Spring only and every year. 2 Credits

OT-424 Assistive Technology II
Prerequisites or Corequisite: OT-421
Assistive technology applied to the occupational performance and context of the child and adolescent populations.
Spring only and every year. 3 Credits
OT-426 Organizational and Professional Issues I
LASC Categories: CAP
Prerequisites or Corequisite: OT-421
Introduction to principles of organization, administration, and management applied to the delivery of occupational therapy services in various practice settings, work relationships, ethical issues, and laws influencing practice will also be discussed. Spring only and every year. 3 Credits

## OT-427 Therapeutic Approaches for Children/

 AdolescentsOccupational therapy strategies for child and adolescent populations across wellness/illness/ disability continuum with emphasis on occupational performance and context.
Spring only and every year. 3 Credits

## Program Learning Outcomes

Demonstrate entry-level clinical reasoning skills.
Identify, evaluate and synthesize research for best clinical practice.

Exhibit professional and ethical behaviors in a variety of settings (traditional, nontraditional, and emerging practice) and with diverse populations.

Design, implement and evaluate therapeutic interventions to increase occupational performance in accordance with the Occupational Therapy Practice Framework.

Assume the responsibility for achieving and maintaining competence in lifelong learning by participating in professional development activities.

## Bachelor of Science Occupational Studies Program

 Requirements for the MajorThe following courses are required:
$\begin{array}{llr}\text { Code } \\ \text { OT Prerequisite Courses for the BSOS }\end{array}$ Title $\left.\begin{array}{r}\text { Credits } \\ \text { (27-28 } \\ \text { credits) }\end{array}\right\}$

OT Major Courses for the BSOS $\begin{array}{r}\text { ( } 53 \\ \text { credits) }\end{array}$

| OT-101 | Introduction of Occupational Studies of Wellness/ Disability | 3 |
| :---: | :---: | :---: |
| OT-102 | Occupational Studies of Wellness/ Disability Groups | 3 |
| OT-203 | Occupational Therapy Theories | 3 |
| OT-211 | Kinesiology Lab | 1 |
| OT-301 | Psychosocial Wellness/ Disability | 2 |
| OT-302 | Psychosocial Therapeutic Approaches | 3 |
| OT-304 | Psychosocial Therapeutic Approaches Lab | 2 |


| OT-312 | Physiological Wellness/ Disability | 2 |
| :---: | :---: | :---: |
| OT-313 | Physiological Therapeutic Approaches | 3 |
| OT-317 | Research I | 3 |
| OT-318 | Physiological Therapeutic Approaches Lab | 2 |
| OT-401 | Occupational Performance \& Context for Older Adults | 2 |
| OT-402 | Therapeutic Approaches for Older Adults | 3 |
| OT-403 | Ther App Lab for Older Adults | 2 |
| OT-404 | Assistive Technology I | 3 |
| OT-407 | Research II | 3 |
| OT-421 | Occupational Performance and Context for Children/ Adolescents | 2 |
| OT-423 | Therapeutic Approaches Lab for Children/Adolescents | 2 |
| OT-424 | Assistive Technology II | 3 |
| OT-426 | Organizational and Professional Issues I | 3 |
| OT-427 | Therapeutic Approaches for Children/Adolescents | 3 |
| Total Credits |  |  |
| Department of Occupational |  |  |
| Therapy: Occupational Studies |  |  |
| Sample Timeline for Completion |  |  |
| of Degree |  |  |

## Year One

 Semester One Credits| OT-101 | Introduction of Occupational <br> Studies of Wellness/ <br> Disability | 3 |
| :--- | :--- | ---: |
| BI-161 | Human Anatomy and <br> Physiology I | 4 |
| PS-101 | General Psychology (HBS) |  |
| EN-101 | College Writing I $^{2}$ | 3 |
| LASC | First-Year Seminar (FYS) <br> $($ p. 50) | 3 |
| Cemester Two | Credits | 3 |
| OT-102 | Occupational Studies of <br> Wellness/ Disability Groups | 3 |
| BI-162 | Human Anatomy and <br> Physiology II (NSP) |  |


| EN-102 | College Writing II ${ }^{2}$ | 3 |
| :---: | :---: | :---: |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| LASC | LASC Elective (QR) (p.59) ${ }^{1}$ | 3 |
|  | Credits | 16 |
| Year Two |  |  |
| Semester Three |  |  |
| OT-203 | Occupational Therapy | 3 |
|  | Theories |  |
| PS-210 | Developmental Psychology (HBS) ${ }^{1}$ | 3 |
| BI-215 | Neuroscience | 4 |
| MA-150 or PS-275 | Statistics I (QR) ${ }^{1}$ <br> or Psychological Statistics | 3-4 |
| LASC | LASC Elective (USW) (p. 60) 1 | 3 |
|  | Credits | 16-17 |
| Semester Four |  |  |
| OT-211 | Kinesiology Lab | 1 |
| PS-322 | Psychology of Aging | 3 |
| BI-271 | Basic Kinesiology (NSP) ${ }^{1}$ | 3 |
| LASC | LASC Elective (GP) (p. 51) ${ }^{1}$ | 3 |
| LASC | LASC Elective (p. 46) ${ }^{1}$ | 3 |
|  | Credits | 13 |
| Year Three |  |  |
| Semester Five |  |  |
| OT-301 | Psychosocial Wellness/ | 2 |
|  | Disability |  |
| OT-302 | Psychosocial Therapeutic Approaches | 3 |
| OT-304 | Psychosocial Therapeutic Approaches Lab | 2 |
| OT-317 | Research I | 3 |
| LASC | LASC Elective (CA) (p. 48) ${ }^{1}$ | 3 |
| LASC | LASC Elective (TLC) (p. 61) ${ }^{1}$ | 3 |
|  | Credits | 16 |
| Semester Six |  |  |
| OT-312 | Physiological Wellness/ Disability | 2 |
| OT-313 | Physiological Therapeutic | 3 |
|  | Approaches |  |
| OT-318 | Physiological Therapeutic <br> Approaches Lab | 2 |
| LASC | LASC Elective (ICW) (p. 55) ${ }^{1}$ | 3 |
| LASC | Diversity (DIV) ${ }^{1}$ | 3 |
| SELECT | Course for Minor ${ }^{1}$ | 3 |
|  | Credits | 16 |


| Year Four |  |  |
| :---: | :---: | :---: |
| Semester Seven |  |  |
| OT-401 | Occupational Performance \& Context for Older Adults | 2 |
| OT-402 | Therapeutic Approaches for Older Adults | 3 |
| OT-403 | Ther App Lab for Older Adults | 2 |
| OT-404 | Assistive Technology I | 3 |
| OT-407 | Research II | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 16 |
| Semester Eight |  |  |
| OT-421 | Occupational Performance and Context for Children/ Adolescents | 2 |
| OT-427 | Therapeutic Approaches for Children/Adolescents | 3 |
| OT-423 | Therapeutic Approaches Lab for Children/Adolescents | 2 |
| OT-424 | Assistive Technology II | 3 |
| OT-426 | Organizational and Professional Issues I (CAP) | 3 |
|  | Credits | 13 |
|  | Total Credits |  |

${ }^{1}$ The sequence of LASC courses marked with ${ }^{1}$ is a suggestion but serves as a reminder that LASC designated courses must be taken to satisfy the LASC requirements.
${ }^{2}$ EN-101 with EN-102 satisfies LASC Writing. By the end of Semester two term, students must have an Accuplacer score of 4 to take MA-150. Alternative in Fall 2 is PS-275.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Physics

## Department of Earth, Environment and Physics

Worcester State University offers a wide variety of introductory courses in physics and astronomy suitable for students fulfilling requirements as part of the Liberal Arts and Sciences Curriculum. These courses also are components of many STEM majors. Upper level courses are offered across physics and astronomy on a rotating basis. The Department of Earth, Environment, and Physics houses minors in both Physics and Astronomy.

Astronomy Minor (p. 305)
Physics Minor (p. 305)

## Faculty

William Hansen, Professor (2005), B.A., State University of New York Albany; M.A., Hunter College; Ph.D., City University of New York Graduate Center

Nabin K. Malakar, Associate Professor (2017), M.S., Ph.D., University at Albany, State University of New York (SUNY)

Michael Ogunbunmi, Assistant Professor (2023), B.S., Ahmadu Bello University; M.S., African University of Science and Technology; Ph.D., University of Johannesburg

Ian W. Stephens, Assistant Professor (2020), B.S., Georgia Institute of Technology; Ph.D., University of Illinois at Urbana - Champaign

## Courses

## PY-101 Introduction to Astronomy

 LASC Categories: NSPTools of the astronomer. The nature of stars, their location and cosmology. Planets and the solar system.
Fall and Spring and every year. 3 Credits

## PY-105 Concepts in Physics I <br> LASC Categories: NSP, LAB

Prerequisites: Math placement exam score of 3 or above or successful completion of college-level math class
Concepts and physical principles of motion, force, mechanical work, energy, and momentum. Torque and angular momentum. Fluids, heat, and thermodynamics. Two hours lecture and one twohour laboratory. Credit will not be awarded for more than one of PY 105, PY 221, and PY 241.
3 Credits
PY-110 Astrophotography
LASC Categories: CA, NSP
The course aims to introduce the fundamental principles of astrophotography or imaging astronomical objects. We will be using optical telescopes to observe the night sky as well as the sun to understand astrophotography as a scientific tool to understand our universe.
Fall only and every 2-3 years. 3 Credits
PY-114 Physics of Waves
LASC Categories: NSP, QAC
Prerequisites: Math placement exam score of 3 or above or successful completion of a college-level math class.
Wave phenomena, including water waves, sound, acoustics, musical instruments, optics and quantum mechanics. Analysis of propagation, power,
scattering and interference.
Spring only and every year. 3 Credits
PY-193 First Year Seminar
LASC Categories: FYS
Introductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
Fall only and every 2-3 years. 3 Credits

## PY-217 General Astronomy <br> LASC Categories: NSP

Prerequisites: MA-190 or an advanced calculus course (except MA 202). PY-101 suggested, but not required.
Algebra-based Astronomy course covering a breadth of topics, primarily focusing outside of the solar system. Topics include: nature and evolution of stars; supernova; white dwarfs, neutron stars, and black holes; galaxies, quasars, and dark matter; large scale structure of the universe; the Big Bang; and dark energy. Emphasis will be on the physical principles underlying the astronomical phenomena. Spring only and every 2-3 years. 3 Credits

## PY-220 Energy and the Environment LASC Categories: NSP

Prerequisites: A college level math course or a math placement code 3.
Explore the important questions surrounding energy, environment, and climate.
Fall only and every $2-3$ years. 3 Credits
PY-221 General Physics I
LASC Categories: LAB, NSP, QAC
Prerequisites: MA-190 (or higher)
Physics with algebra and trigonometry, including kinematics, dynamics, energy, momentum, gravity, oscillators, waves and heat. Three hours lecture and two hours lab. Credit will not be awarded for more than one of PY 105, PY 221, and PY 241.
Fall and Spring and every year. 4 Credits

## PY-222 General Physics II

LASC Categories: LAB, NSP
Prerequisites: PY-221
Physics with algebra and trigonometry including electric and magnetic fields, resistance, capacitance, inductance, reflection, refraction, interference, relativity and quantum physics. Three hours lecture and two hours laboratory. Credit will not be awarded for more than one of PY 106, PY 222, and PY 242.
Fall and Spring and every year. 4 Credits
PY-241 Physics I (Mechanics)
LASC Categories: LAB, NSP, QAC
Prerequisites or Corequisite: one semester of calculus either previous or concurrent to PY 241. Physics with calculus, including kinematics, dynamics, energy, momentum, gravity, oscillators, waves and heat. Three hours lecture and two hours lab. Credit will not be awarded for more than one of PY 105, PY 221, and PY 241.
Fall only and every year. 4 Credits

## PY-242 Physics II (Electricity, Magnetism and Optics)

LASC Categories: LAB, NSP
Prerequisites: PY-241 and one semester of calculus. Physics with calculus including electric and magnetic fields, resistance, capacitance, inductance, reflection, refraction, interference, relativity and quantum physics. Three hours lecture and two hours lab. Credit will not be awarded for more than one of PY 106, PY 222, and PY 242.
Spring only and every year. 4 Credits
PY-250 Observational Astronomy
LASC Categories: LAB, QAC, NSP
Prerequisites: MA-190
Orientation in the night sky. Use of telescopes and cameras. Conduct astronomical observations. Analysis and interpretation of astronomical data. Spring only and every 2-3 years. 3 Credits

## PY-297 Selected Topics in Physics

Lecture or laboratory course in a selected area in physics. Topics announced in advance. Prerequisite: Consent of Instructor.
1-6 Credits

## PY-310 Modern Physics

Prerequisites: MA-200 and either PY-222 or PY-242
Special relativity. The wave nature of matter,
introductory quantum mechanics, and atomic physics. Condensed matter. Radioactivity. Nuclear and particle physics.
Fall only and every 2-3 years. 3 Credits
PY-360 Introduction to Materials Science
Prerequisites: $\mathrm{CH}-120, \mathrm{CH}-121$, and either PY-221 and PY-222, or PY-241 and PY-242
Physical structures of solids. Electrical, magnetic, thermal and optical properties of solids, liquids and soft matter. Structure-property relationships in materials. Cross-listed with $\mathrm{CH}-360$.
3 Credits

## PY-370 Introduction to Nuclear Science

Prerequisites: $\mathrm{CH}-120, \mathrm{CH}-121, \mathrm{MA}-200$, and either PY-221 and PY-222 or PY-241 and PY-242
Fundamentals of nuclear science. Topics include nuclear structure and forces, radioactive decays, nuclear reactions, and modern applications. Crosslisted with CH-370.
3 Credits

## PY-408 Directed Study: Physics

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a physics faculty member.

## 3-4 Credits

## PY-410 Independent Study: Physics

Opportunity for advanced students to pursue a topic of special interest involving extensive reading, experimentation, and research. Prerequisite: Consent of Instructor.

## 1-6 Credits

## PY-415 Advanced Physics-Astronomy Research and

 FieldworkStudents develop and execute a research project in physics or astronomy under the supervision of a physics faculty member. May include the development of a formal proposal, background literature search, data collection either in the field or in a laboratory, analysis and interpretation of data, and production of a research paper summarizing the findings.
Other or on demand and other or on demand. 1-6 Credits

## PY-460 Physics Internship

Advanced students assigned to external public or private agency, working under agency and physics faculty supervision. Prerequisite: Consent of physics faculty.

## 1-4 Credits

## Astronomy Minor

Students will study the breadth of Astronomy, including the following topics: nature and evolution of stars; astrobiology and astrochemistry; supernova; white dwarfs, neutron stars, and black holes; galaxies, quasars, and dark matter; large scale structure of the universe; the Big Bang; and dark energy.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Requirements for a Minor |  | (25-33 |
|  |  | credits) |
| 18 credits from the following areas: |  |  |
| Required Courses |  |  |
| PY-217 | General Astronomy | 3 |
| PY-408 | Directed Study. Physics | 1-4 |
| or PY-410 | Independent Study: Physics |  |


| Electives |  | 3 |
| :--- | :--- | ---: |
| PY-101 | Introduction to Astronomy | 3 |
| PY-110 | Astrophotography | 4 |
| PY-221 | General Physics I |  |
| or PY-241 | Physics I (Mechanics) | 4 |
| PY-222 | General Physics II <br> or PY-242 | Physics II ( Electricity, Magnetism and <br> Optics ) |
| GS-245 |  | 3 |
| PY-250 | Observational Astronomy | 3 |
| PY-297 | Selected Topics in Physics <br> $(($ approved Astronomy-based <br> class)) | $1-6$ |

## Physics Minor

A physics minor is useful in many technical fields because the study of physics develops an understanding of basic principles, mathematical modeling, and practical applications. Specific areas where a physics background is useful include imaging techniques in medicine and biology, analytical instrumentation in chemistry, remotesensing techniques in the geosciences, and development of realistic physical models in computer science and mathematics.

## Requirements for a Minor in Physics

18 credits in Physics including One of the following one year sequences:

| Code | Title | Credits |
| :--- | :--- | ---: |
| PY-221 | General Physics I | 8 |
| \& PY-222 | and General Physics II |  |
| PY-241 | Physics I (Mechanics) | 8 |
| \& PY-242 | and Physics II (Electricity, <br> Magnetism and Optics ) |  |
|  |  |  |

## Pre-Medical Concentrations

Worcester State University offers specific premedical concentrations for students who major in Biology, Biotechnology, or Chemistry. The courses required for each concentration are listed under each program. Students interested in pursuing these concentrations should consult both their major advisor and the Chair of the Pre-medical and PreDental Advisory Committee as soon as possible following matriculation. In addition, an advisory program open to all students interested in preparing for medical, dental, veterinary, pharmacy, physician assistant, physical therapy, or optometry studies is offered, coordinated by the Chair of the Pre-Medical and Pre-Dental Advisory Committee.

## Pre-Medical Programs

- Major in Biology, Pre-Medical Concentration (p. 306)
- Major in Biotechnology, Pre-Medical Concentration (p. 309)
- Major in Chemistry, Pre-Medical Concentration
- Pre-Medical Courses For Non-Biology, Biotechnology, or Chemistry Majors


## Pre-Medical Advisory Committee Members

Roger S. Greenwell, Co-Coordinator of the Biotechnology Program, Associate Professor (2014), B.S. Western Kentucky University; Ph.D. University of Wisconsin-Madison

Jennifer Hood-DeGrenier, Associate Professor (2012), B.A. Williams College; Ph.D. Harvard University

Jeffry C. Nichols, Department Chair, Associate Professor (2006), B.A. Texas Tech University; Ph.D. Rice University

Steven J. Oliver, Department Chair, Professor (2003), B.A. University of Montana; Ph.D. Boston University

## Biology Major, Concentration in Pre-Medicine

This concentration is intended for Biology majors who aspire to attend medical school, dental school, or veterinary school after completing their undergraduate degree. The concentration is a means
to ensure that students have the best possible academic preparation and advising as they prepare for these post-graduate programs. The Pre-Medicine Concentration requirements include courses that are not part of the Biology major but are designated as core prerequisites for these professional schools as well as some additional courses that are not part of the core prerequisites but are strongly recommended. The concentration curriculum also includes a onecredit seminar taken during the sophomore or junior year that is designed to familiarize students with the requirements for admission to medical, dental, and veterinary schools. The seminar helps students develop personal plans for fulfilling these requirements so that they have the best possible chance of admission to post-graduate study.

## Requirements for a Major in Biology, Concentration in PreMedicine <br> Requirements for a Major in Biology

| Code | Title | Credits |
| :---: | :---: | :---: |
| Required Biology courses |  | (38 |
|  |  | credits) |
| BI-140 | Introduction to Organismal Biology | 4 |
| BI-141 | Intro to Cellular and Molecular Biology | 4 |
| BI-200 | Human Biology (OR BI-161 <br> AND BI-162 (Human <br> Anatomy \& Physiology I \& II)) | 4 |
| BI-202 | Principles of Ecology | 4 |
| BI-203 | Genetics | 4 |
| BI-204 | Microbiology | 4 |
| BI-404 | Biology Seminar | 2 |
| 3 Upper Division Electives ( 300 or 400 level lab courses) |  | 12 |
| Ancillary Requirements |  | $\begin{array}{r} (29 \\ \text { credits) } \end{array}$ |
| MA-150 | Statistics I | 3 |
| MA-190 | Pre-calculus (or Higher) | 4 |
| $\begin{aligned} & \mathrm{CH}-120 \\ & \& \mathrm{CH}-121 \end{aligned}$ | General Chemistry I and General Chemistry II | 8 |
| $\begin{aligned} & \text { CH-201 } \\ & \& \mathrm{CH}-202 \end{aligned}$ | Organic Chemistry I (lecture) and Organic Chemistry II (lecture) | 6 |
| $\begin{aligned} & \text { PY-221 } \\ & \& \text { PY-222 } \end{aligned}$ | General Physics I and General Physics II | 8 |


| or PY-241 | Physics I (Mechanics) <br> \& PY-242 |
| :--- | :--- |
| and Physics II ( Electricity, Magnetism <br> and Optics ) |  |

Total Credits
Students who also complete $\mathrm{CH}-203$ and $\mathrm{CH}-204$, and 3 additional credits in 200-level or higher chemistry courses can earn a chemistry minor.

Biology Upper-Level Electives

| Code | Title | Credits |
| :---: | :---: | :---: |
| Cellular \& Molecular Pathways |  |  |
| B1-306 | Developmental Biology | 4 |
| BI-324 | Endocrinology | 4 |
| BI-341 | Mycology | 4 |
| BI-371 | Advanced Topics in Cell and Molecular Biology | 4 |
| BI-372 | Immunology | 4 |
| BI-375 | Virology | 4 |
| BI-398 | Cancer Biology | 4 |
| BT-375 | Tissue Culture | 4 |
| BT-376 | Biotechnology | 4 |
| BT-377 | Fermentation Technology | 4 |
| BT-378 | Bioinformatics | 4 |
| BI/CH-410 | Biochemistry I | 4 |
| Organismal \& Ecological Systems |  | $\begin{array}{r} (48 \\ \text { credits) } \end{array}$ |
| BI-301 | Topics in Invertebrate Zoology | 4 |
| BI-303 | Parasitology | 4 |
| BI-304 | Comparative Vertebrate Anatomy | 4 |
| BI-315 | Comparative Neurobiology | 4 |
| BI-321 | Comparative Physiology | 4 |
| BI-331 | Marine Biology | 4 |
| BI-333 | Topics in Vertebrate Zoology | 4 |
| BI-334 | Wildlife Biology | 4 |
| BI-340 | Plant Sciences | 4 |
| BI-344 | Soil Biology | 4 |
| BI-360 | Animal Behavior | 4 |
| B1-380 | Biodiversity and Conservation Biology | 4 |

(Note: Pre-med and graduate school candidates should also take $\mathrm{CH}-203$ \& $\mathrm{CH}-204$ in addition to CH-201 and CH-202)

A minimum of three upper division laboratory courses (BI 300- or BI 400-level) are to be selected. Students must take at least one course from each category. Additional upper level elective courses or graduate research/internships are strongly encouraged. The courses should be selected with the advice and consent of the faculty advisor. A grade point average of 2.0 must be maintained in biology courses and in the ancillary science and mathematics courses. Students considering graduate and professional work should take, as a recommended minimum, calculus and introduction to computer science.

## Pre-Medical Concentration Requirements

| Code | Title | Credits |
| :--- | :--- | ---: |
| MA-200 | Calculus I | 4 |
| CH-203 | Organic Chemistry <br> Laboratory I | 2 |
| CH-204 | Organic Chemistry <br> Laboratory II | 2 |
| CH-410 | Biochemistry I | 4 |
| $\mathrm{BI}-211$ | Pre-Medical Seminar. <br> Preparing for a Career in <br> Medicine | 1 |
|  |  |  |

Total Credits
Note: Only Biology majors will be eligible for this concentration. The 13 credits specified for the concentration include the courses required for the concentration that are not required for the Biology major. Students will still have to complete all of the credits required for the major as well.

## Sample Timeline for Completion of Degree

Year One

| Semester One | Credits |  |
| :--- | :--- | ---: |
| BI-140 | Introduction to Organismal | 4 |
|  | Biology |  |
| CH-120 | General Chemistry I | 4 |
| EN-101 | College Writing I $^{2}$ | 3 |
| MA-190 | Pre-calculus $^{3}$ | 4 |
| LASC | First Year Seminar (FYS) $^{\text {Credits }}$ | 3 |
|  |  | $\mathbf{1 8}$ |

Semester Two
BI-141

| CH-121 | General Chemistry II | 4 |
| :---: | :---: | :---: |
| EN-102 | College Writing II ${ }^{2}$ | 3 |
| MA-200 | Calculus I | 4 |
| LASC | Elective (HBS) ${ }^{4}$ | 3 |
|  | Credits | 18 |
| Year Two |  |  |
| Semester Three |  |  |
| BI-204 | Microbiology ${ }^{6}$ | 4 |
| CH-201 | Organic Chemistry I (lecture) | 3 |
| CH-203 | Organic Chemistry <br> Laboratory I | 2 |
| $\begin{aligned} & \text { PY-221 } \\ & \quad \text { or PY-241 } \end{aligned}$ | $\begin{aligned} & \text { General Physics I }{ }^{7,8} \\ & \text { or Physics I (Mechanics) } \end{aligned}$ | 4 |
| MA-150 | Statistics I | 3 |
|  | Credits | 16 |


| Semester Four |  |  |
| :--- | :--- | ---: |
| BI-203 | Genetics ${ }^{6}$ | 4 |
| CH-202 | Organic Chemistry II (lecture) | 3 |
| CH-204 | Organic Chemistry <br> Laboratory II | 2 |
| PY-222 |  |  |
| or PY-242 | General Physics II <br> or Physics II ( Electricity, <br> Magnetism and Optics ) | 4 |
| LASC | Elective (ICW) |  |
| BI-211 | Pre-Medical Seminar <br> Preparing for a Career in <br> Medicine | 3 |
|  | Credits | 1 |

## Year Three

Semester Five

| BI-200 | Human Biology ${ }^{6,8}$ | 4 |
| :--- | :--- | ---: |
| CH-410 | Biochemistry I $^{9}$ | 4 |
| LASC | Elective (CON) | 3 |
| LASC | Elective (TLC) | 3 |
|  | Credits | $\mathbf{1 4}$ |

## Semester Six

| BI-202 | Principles of Ecology $^{6}$ | 4 |
| :--- | :--- | ---: |
| BI-3XX + | 300 or 400 Major Elective | 4 |
| LASC | Elective (USW) $^{5}$ | 3 |
| LASC | Elective (GP) | 3 |
|  | Credits | $\mathbf{1 4}$ |

## Year Four

## Semester Seven

| BI-3XX+ | 300 or 400 Major Elective <br> Lab | 4 |
| :--- | :--- | ---: |
| LASC | Elective (CA) ${ }^{5}$ | 3 |
| SELECT | Additional Science or Math | $3-4$ |


| SEL | General Elective | 3 |
| :---: | :---: | :---: |
|  | Credits | 13-14 |
| Semester Eight |  |  |
| BI-404 | Biology Seminar ${ }^{10}$ | 2 |
| SELECT | Additional Science or Math | 4 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 12 |
|  | Total Credits | 22-123 |
| ${ }^{1}$ This timeline should be followed by all students who intend to enter medical/dental/vet school the fall after graduation. Many students take a least a year between completion of their undergraduate degree and entry into one of these programs. In this case, the two physics courses can be taken in Year 3 instead of Year 2. |  |  |
| ${ }^{2}$ EN-101 and EN-102 satisfy LASC Writing. |  |  |
| ${ }^{3} \mathrm{MA}-190$ requires an Accuplacer score of 6 or higher. |  |  |
| ${ }^{4}$ Pre-medical and pre-dental students should take either PY-101 (General Psychology) or S0-100 (Introduction to Sociology) to fulfill the HBS LASC requirement. |  |  |
| ${ }^{5}$ After the HBS course, other LASC courses can be taken in any order, but the listed serves as a reminder that LASC designated courses must be taken to satisfy each of the LASC requirements. Biology major courses satisfy the WAC and QAC categories. A DAC course must be taken outside of the major but can also count for a LASC content area. |  |  |
| ${ }^{6}$ This sequence of 200-level Biology core courses is suggested, but they can be taken in any order. |  |  |

${ }^{7}$ Physics
Requirements: PY-221 \& PY-222 OR PY-241 \& PY-242 satisfies
LASC NSP.
${ }^{8} \mathrm{BI}-161 / \mathrm{BI}-162$ cannot substitute for $\mathrm{BI}-200$.
${ }^{9} \mathrm{CH}-410$ counts as one of the 300/400-level Biology electives in the Cell and Molecular category.
${ }^{10}$ All biology core courses must be completed before taking BI-404 (BI-140, BI-141, BI-200, BI-202, BI-203, BI-204).

## Major in Biotechnology, Concentration in PreMedicine

This concentration is intended for Biotechnology majors who aspire to attend medical school, dental school, or veterinary school after completing their undergraduate degree. The concentration is a means to ensure that students have the best possible academic preparation and advising as they prepare for these post-graduate programs. The Pre-Medical Concentration requirements include courses that are not part of the Biotechnology major but are designated as core prerequisites for these professional schools, as well as some additional courses that are not part of the core prerequisites but are strongly recommended. The concentration curriculum also includes a one-credit seminar taken during the sophomore or junior year that is designed to familiarize students with the requirements for admission to medical, dental, and veterinary schools. The seminar helps students develop personal plans for fulfilling these requirements so that they have the best possible chance of admission to post-graduate study. A first-year seminar targeted at pre-medical students is offered, but not required, for completion of the concentration.

## Requirements for a Major in Biotechnology, Concentration in Pre-Medicine <br> Requirements for a Major in Biotechnology

| Code | Title | Credits |
| :--- | :--- | ---: |
| BI-141 | Intro to Cellular and <br> Molecular Biology | 4 |
| BI-204 | Microbiology | 4 |
| BT-375 | Tissue Culture | 4 |
| BT-376 | Biotechnology | 4 |
| BT-410 | Biotechnology Seminar | 1 |
| CH-120 | General Chemistry I |  |
| \& CH-121 | and General Chemistry II | 8 |
| CH-201 | Organic Chemistry I (lecture) <br> and Organic Chemistry <br> Laboratory I | 5 |
| \& CH-203 | Chemical Analysis: an <br> Introduction to Modern |  |
| CH-210 | Methods | 5 |
|  |  |  |


| CH-410 | Biochemistry I | 4 |
| :--- | ---: | ---: |
| Major Electives |  | $(8$ |
|  |  | credits) |

Select 8 credits from the following electives: 8

| $\mathrm{BI}-313$ | Cancer Biology |
| :--- | :--- |
| $\mathrm{BI}-398$ | Immunology |
| $\mathrm{BI}-372$ | Advanced Topics in Cell and <br> Molecular Biology |
| $\mathrm{BI}-371$ | Virology |
| BI-375 | Medicinal Chemistry |
| CH-350 | Organic Chemistry II (lecture) <br> and Organic Chemistry <br> Laboratory II (5) |
| CH-202 CH-204 |  |


| PY-310 | Modern Physics |
| :--- | :--- |
| CH-411 | Biochemistry II |
| BT-377 | Fermentation Technology |
| BT-378 | Bioinformatics |
| BT-450 | Internship in Biotechnology |
| CH-335 | Green Chemistry |
| CH-450 | Computational Chemistry |
| CH-455 | Special Topics in Chemistry <br> (Organometallics in Organic <br> Synthesis) |

And certain other BI-300, CH-300 and PY-300
level courses with Biotech coordinator approval.
Ancillary courses (26 credits)

| MA-150 | Statistics I | 3 |
| :--- | :--- | ---: |
| MA-190 | Pre-calculus (may be waived) | 4 |
| MA-200 | Calculus I | 4 |
| MA-201 | Calculus II | 4 |
| or BI-203 | Genetics |  |
| Select one of the following: | 3 |  |
| EN-252 | Technical Writing |  |
| EN-253 | Business Communications |  |
| CS-120 | Microcomputer Applications |  |
| Select one of the following: | 8 |  |

Select one of the following:

| PY-221 | General Physics I |  |
| :--- | :--- | :--- |
| \& PY-222 | and General Physics II (8) |  |
| PY-241 | Physics I (Mechanics) |  |
| \& PY-242 | and Physics II (Electricity, <br>  <br>  <br> Magnetism and Optics ) (8) |  |
| Total Credits |  | 73 |

## Pre-Medical Concentration Requirements

In addition to the requirements of the Biotechnology major, the following are required:

| Code | Title | Credits |
| :--- | :--- | ---: |
| BI-140 | Introduction to Organismal <br> Biology | 4 |
| BI-203 | Genetics | 4 |
| $\mathrm{BI}-211$ | Pre-Medical Seminar. <br> Preparing for a Career in <br> Medicine | 1 |
|  | Organic Chemistry II (lecture) | 3 |
| CH-202 | Organic Chemistry <br> Laboratory II | 2 |
| CH-204 |  | $\mathbf{1 4}$ |
| Total Credits |  |  |

## Sample Timeline for Completion of Degree

## Year One

| Semester One |  | Credits |
| :--- | :--- | ---: |
| EN-101 | College Writing I ${ }^{1}$ | 3 |
| CH-120 | General Chemistry I $^{2}$ | 4 |
| MA-190 | Pre-calculus $^{2}$ | 4 |
| BI-140 | Introduction to Organismal Biology | 4 |
|  | First Year Seminar (FYS) | 3 |
| LASC | Credits | $\mathbf{1 8}$ |

## Semester Two

| EN-102 | College Writing II $^{1}$ | 3 |
| :--- | :--- | ---: |
| CH-121 | General Chemistry II | 4 |
| MA-200 | Calculus I | 4 |
| BI-141 | Intro to Cellular and | 4 |
|  | Molecular Biology |  |
| LASC | Elective (HBS) ${ }^{3}$ | 3 |
|  | Credits | $\mathbf{1 8}$ |

## Year Two Semester Three

| BI-204 | Microbiology | 4 |
| :--- | :--- | ---: |
| BI-211 | Pre-Medical Seminar: <br> Preparing for a Career in <br> Medicine | 1 |
| CH-201 | Organic Chemistry I (lecture) | 3 |
| CH-203 | Organic Chemistry <br> Laboratory I | 2 |
| PY-221 | General Physics I <br> or PY-241 | Credits |

## Semester Four

| PY-222 <br> or PY-242 | General Physics II <br> or Physics II (Electricity, <br> Magnetism and Optics ) | 4 |
| :--- | :--- | ---: |
| CH-202 | Organic Chemistry II (lecture) | 3 |
| CH-204 | Organic Chemistry <br> Laboratory II | 2 |
| MA-150 | Statistics I $^{4}$ | 3 |
| LASC | Elective (ICW) $^{3}$ | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Year Three |  |  |
| Semester Five | Biochemistry I | 4 |
| CH-410 | Genetics $^{\text {BI-203 }}$ | Elective (CON) |


| EN-252 | Technical Writing |  |
| :--- | :--- | :--- |
| EN-253 | Business Communications |  |
| CS-120 | Microcomputer Applications |  |
|  | Credits | $\mathbf{1 4}$ |

## Semester Six

| CH-210 | Chemical Analysis: an <br> Introduction to Modern <br> Methods | 5 |
| :--- | :--- | ---: |
|  | Bl or BT Upper Level Elective | 4 |
| BI/BT-3XX+ | Elective $(\text { TLC })^{3}$ | 3 |
| LASC | Elective (USW) |  |
| LASC | Credits | 3 |
|  |  | $\mathbf{1 5}$ |

## Year Four

Semester Seven

| BT-376 | Biotechnology | 4 |
| :--- | :--- | ---: |
| BT-240 | Research Experience for <br> or BT-440 <br>  <br>  <br>  <br>  <br> Undergraduates <br> or Advanced Research <br> Experience | $1-6$ |
| BI/BT-3XX+ | Bl or BT Upper Level Elective | 4 |
| LASC | Elective (GP) $^{3}$ | 3 |
| LASC | Elective (CA) ${ }^{3}$ | 3 |
|  | Credits | $\mathbf{1 5 - 2 0}$ |


| Semester Eight |  |  |
| :--- | :--- | ---: |
| BT-375 | Tissue Culture | 4 |
| BT-240 | Research Experience for <br> or BT-440 | Undergraduates ${ }^{5}$ <br> or Advanced Research <br> Experience |
|  | Biotechnology Seminar | 1 |
| BT-410 | Free Elective | 1 |
| SELECT |  |  |


| SELECT | Free Elective | 3 |
| :--- | :--- | ---: |
|  | Credits | $12-17$ |
|  | Total Credits | $121-131$ |


| Code | Title | Credits |
| :---: | :---: | :---: |
| BI-140 | Introduction to Organismal Biology | 4 |
| BI-141 | Intro to Cellular and Molecular Biology | 4 |
| BI-203 | Genetics ${ }^{1}$ | 4 |
| CH-120 | General Chemistry I | 4 |
| CH-121 | General Chemistry II | 4 |
| $\begin{aligned} & \mathrm{CH}-201 \\ & \& \mathrm{CH}-203 \end{aligned}$ | Organic Chemistry I (lecture) and Organic Chemistry Laboratory I | 5 |
| $\begin{aligned} & \mathrm{CH}-202 \\ & \& \mathrm{CH}-204 \end{aligned}$ | Organic Chemistry II (lecture) and Organic Chemistry Laboratory II | 5 |
| CH-410 | Biochemistry I ${ }^{1}$ | 4 |
| MA-200 | Calculus I | 4 |
| $\begin{aligned} & \text { PS-101 } \\ & \quad \text { or S0-100 } \end{aligned}$ | General Psychology ${ }^{1}$ Introduction to Sociology | 3 |
| One of the following: |  | 4 |
| PY-221 <br> \& PY-222 | General Physics I and General Physics II |  |
| $\begin{aligned} & \text { PY-241 } \\ & \& \text { PY-242 } \end{aligned}$ | Physics I (Mechanics) and Physics II (Electricity, Magnetism and Optics ) |  |

${ }^{1}$ Not required but strongly recommended.

## School of Humanities and Social Sciences

Dean
Dr. Russ Pottle

## Mission Statement:

The School of Humanities and Social Sciences at Worcester State University cultivates intellectual growth, engaged citizenship, and professional accomplishment among faculty and students. Together, faculty and students encounter and analyze the variety of human experiences and human expression, the value of multiple perspectives, and the natures of social, economic, and political power. Through inspired teaching, research, scholarship, and creative work, they produce new knowledge and contribute to the common good. Through dedicated service, they benefit the community. In all these activities, students find passions and life paths.

## Location

Sullivan Academic Center
Second Floor, Room S-210

## Academic Departments

- Business Administration and Economics (p. 325)
- Communication (p. 340)
- Criminal Justice (p. 350)
- English (p. 367)
- History and Political Science (p. 386)
- Philosophy (p. 417)
- Psychology (p. 434)
- Sociology (p. 447)
- Urban Studies (p. 466)
- Visual and Performing Arts (p. 314)
- World Languages (p. 496)


## Interdisciplinary Centers

- Center for Community Media
- Center for Entrepreneurship
- Translation Center
- Urban Action Institute


## Art Major

The Art Major offers a 45-credit program of study that emphasizes the integration of broad-based studio art training and arts research with the development of creativity, communication, and critical thinking to prepare students for graduate studies or careers in a wide range of arts-related fields, including arts and cultural entrepreneurship, museum studies, arts administration, arts and community development, etc. Students in the art program have the freedom to explore a specified area of interest, including drawing, painting, illustration, sculpture, printmaking, or history and gallery/museum studies.

As part of the new major's coursework, 30 credits come from a range of introductory and intermediate studio courses, yearly Art Practicums where students are given the opportunity to apply their knowledge and begin to develop their own unique artistic voice, and a menu of student- selected elective courses. This progressive learning program prepares the students for the Thesis Seminar and Capstone where they will develop an independent project that combines creative work in the studio with research informed by their chosen topic or concept.

In addition to four dedicated studios with tools and equipment for printmaking, painting and drawing, design and sculptural work serving as laboratories, art faculty and staff operate the Mary Cosgrove Dolphin Gallery. The Gallery gives students the opportunity to immerse themselves in current art, artists and art trends, show their own work, and provides a practical setting to learn the inner workings of a professional gallery through internships, course work and exhibition work.

Worcester State University also offers a Minor in Art (p. 313).

| Code <br> Required Courses | Title | Credits |
| :--- | :--- | :--- |
| AR-118 | Global Art History | 3 |
| AR-119 | First Year Art Practicum | 1 |
| AR-123 | Design Fundamentals | 3 |
| AR-140 | Drawing Fundamentals | 3 |
| AR-210 | Drawing and Painting Studio | 3 |
| AR-215 | Topics in Art | 3 |
| AR-219 | Second Year Art Practicum | 1 |
| AR-225 | Art Since Mid-20th Century | 3 |
| AR-235 | 3D Sculpture Studio | 3 |


| AR-319 | Third Year Art Practicum | 1 |
| :--- | :--- | ---: |
| AR-405 | Thesis Seminar | 3 |
| AR-455 | Thesis Capstone | 15 |
| Electives to be selected with advising |  |  |
| Suggested Electives |  |  |
| AR-130 | Painting I |  |
| AR-150 | Life Studio I |  |
| AR-165 | Creating Cultural Forms |  |
| AR-191 | Special Topics in Art |  |
| AR-220 |  |  |
| AR-230 | Printmaking |  |
| AR-240 | Watercolor |  |
| AR-270 | Driftwood to Dumpsters |  |
| AR-275 |  |  |
| AR-285 | History of Photography |  |
| AR-300 |  |  |
| AR-302 |  |  |
| AR-306 |  |  |
| AR-330 | Intermediate Printmaking |  |
| AR-350 | Special Topics in Art |  |
| AR-400 | Ind Study: Art |  |
| AR-402 | Internship in Art |  |
| AR-408 | Directed Study: Art |  |
| Other Electives |  |  |
| AR-100 | Cross Media Studio |  |
| AR-200 |  |  |
| AR-260 | Visual Arts in the Schools |  |

Total Credits

## Art Minor

Recognizing the interdisciplinary nature of the arts and how the arts often integrate into and enhance students' study in other disciplines such as criminal justice, communication, business and psychology, the Visual and Performing Arts Department offers minors in its three disciplines of Art, Music, and Theatre. A minor in the arts allows students to further explore and develop their affinity for the arts and their artistic talents.

The Art Minor provides students with opportunities for studio practice and for the study of the history of art. A balance of introductory, advanced and elective courses combine to build a solid foundation in art. Opportunities to exhibit work in our campus gallery are part of the Art Minor experience.

## Requirements for a Minor in Art

18 credits in art courses at the 100, 200 and 300level.

| Code <br> Required Courses | Title | Credits |
| :--- | :--- | ---: |
| AR-123 | Design Fundamentals | 3 |
| SELECT | AR-130 Painting 1 <br> OR AR-140 Drawing <br>  <br>  <br>  <br>  <br>  <br>  <br>  <br> Fundamentals OR AR-210 <br>  <br> Drawing and Painting Studio |  |
| AR-235 | 3D Sculpture Studio | 3 |

Elective Courses
Art History Elective 3
AR Elective 300+ 3
AR Elective 3

Total Credits

## Visual and Performing Arts Department of Visual and Performing Arts

Aligning itself with the evolving trends of the $21^{\text {st }}$ century arts world, Worcester State University offers several programs for visual and performing arts students, including two majors, double majors for education students, and four minors.

The Major in Interdisciplinary Visual and Performing Arts is one of the few interdisciplinary arts majors in the country. With this major, students go beyond the standard coursework in art, music, and theatre to understand the larger world of visual and performing arts. WSU's VPA major allows students to gain an interdisciplinary view of the arts and an understanding of how to use one art form to inform the other, while also gaining an in-depth knowledge of the art forms that most excite them.

The interdisciplinary major is designed to provide students with a strong foundation in art, music, and theatre, and both a theoretical and practical understanding about how they interact in an interdisciplinary environment. Core courses promote critical thinking, and prepare students intellectually and creatively to complete their capstone/senior thesis projects and launch careers in the arts. Students craft the major to fit their areas of interest - art, music, theatre, etc. - through electives chosen in consultation with advisors. Students apply their
coursework to the production, performance, and critical study of creative work through a multitude of exhibit and performance opportunities.

Students interested in theatre can pursue studies through the new Major in Theatre or the Major in Interdisciplinary Visual and Performing Arts. The. Major in Theatre provides marketable, hands-on production experience with an extensive variety of coursework to prepare students for a career in live theatre production, its associated industries, or advanced graduate education.

Students interested in art can pursue studies through the new Major in Art or the Major in Interdisciplinary Visual and Performing Arts. The Major in Art emphasizes the integration of broad-based studio art training and arts research with the development of creativity, communication, and critical thinking to prepare students for graduate studies or careers in a wide range of arts-related fields.

- Art Major (p. 313)
- Art Minor (p. 313)
- Composition and Music Technology Minor (p. 406)
- Music Minor (p. 405)
- Theatre Major (p. 454)
- Theatre Minor (p. 454)
- Visual and Performing Arts and Education, Double Major (p. 490)
- Visual and Performing Arts Major (p. 489)


## Faculty

Michael C. Hachey, Professor (1993), B.F.A., M.F.A., Massachusetts College of Art

Stacey Parker, Professor (2007), B.F.A., Alfred University; M.F.A., Rochester Institute of Technology

Amaryllis Siniossoglou, Professor (2005), P.E.P., Royal College of Art, London; M.F.A., University of Massachusetts, Amherst; Diplome Superieur d' Art Plastique, School of Art, Athens

Kyle D. Martin, Professor (1998), B.M. Hardin-
Simmons University; M.M., D.M.A., Eastman School
of Music
Carlos Odria, Assistant Professor (2020), B.A., M.Mus., Ph.D., Florida State University

Samuel O'Connell, Department Chair, Professor (2010), B.A., M.A., Washington University; Ph.D., Northwestern University

Adam Zahler, Professor (2007), B.A., University of Vermont; M.F.A., University of Virginia

## Art Courses

## AR-100 Cross Media Studio

LASC Categories: CA, TLC
An introduction to selected two- and threedimensional media through the exploration of a semester-long theme such as the human figure, or forms in nature.
Fall and Spring and every year. 3 Credits

## AR-105 Introduction to Animation

This hands-on introductory course covers the fundamentals and aesthetics of computer animation using the Adobe AfterEffects motion graphics program.
Fall and Spring and every year. 3 Credits

## AR-118 Global Art History

LASC Categories: GP, DAC, CA
Surveys the outstanding visual art from all cultures beginning in the prehistoric era to the late 19th century.
Fall only and every year. 3 Credits

## AR-119 First Year Art Practicum

This course offers students an opportunity to work closely with faculty to work in the art gallery, develop technical skills, studio projects, and do research to support their creative development. This course is required for the Art Major. It will be geared to the individual needs of each student.
Other or on demand and every year. 1 Credit

## AR-123 Design Fundamentals

LASC Categories: CA, QAC
Design Fundamentals is a course combining 2 and 3 Dimensional Design. In this course we explore composition, space, and color along with planes, volumes, and environments. A variety of materials are used to create on surfaces and in actual space. Many projects are grounded in aspects of mathematical and geometrical systems, e.g., grids, tiling, Fibbonaci series, fractals, regular solids.
Fall and Spring and every year. 3 Credits

## AR-130 Painting I

LASC Categories: CA
An introduction to the fundamentals of historical painting styles, techniques, and materials used, with emphasis on visual perception and expression Fall and Spring and every year. 3 Credits

## AR-140 Drawing Fundamentals

LASC Categories: CA, GP, DAC
The development of visual perception, technical skills, and individual expression in drawing media. Students will explore concepts in drawing to develop their artwork through observation, experimentation, awareness of historical and contemporary contexts, and critical assessment. Projects utilize a variety of drawing materials to demonstrate technical facility and to enhance self-expression.
Fall and Spring and every year. 3 Credits

## AR-150 Life Studio I

LASC Categories: CA
Focus on the human figure through different modes of drawing and painting. Attention to structure and anatomy and their expressive aspects.
Fall and Spring and every year. 3 Credits

## AR-165 Creating Cultural Forms

LASC Categories: CA, GP, WAC, DAC
Prerequisites: EN-102
A studio course. Concepts of art forms created by a variety of world cultures and art movements of the past and present.
Fall and Spring and every year. 3 Credits

## AR-191 Special Topics in Art

Introductory course to cover various topics.
3 Credits
AR-193 First Year Seminar in Art
LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Every year. 3 Credits

## AR-210 Drawing and Painting Studio LASC Categories: CA

This course is a comprehensive introduction to the art of drawing and painting. Students will be strongly encouraged to explore the skills and concepts of these art forms in order to develop their ideas through observation, experimentation, historical context, and analysis. Projects are designed to expand awareness and to expose students to contemporary concerns.
Fall and Spring and every year. 3 Credits

## AR-215 Topics in Art <br> LASC Categories: CA, GP

This course chooses a topic or a theme to explore in the classroom and studio for a semester. Students will read about this topic or theme and they will produce work in the studio inspired by their reading. Topics may include (but are not limited to): the figure in art, landscape art, abstract art, science and art, social sciences and art, religion and art, east meets west, arte povera, Dada art etc.
Fall only and every year. 3 Credits

## AR-219 Second Year Art Practicum Prerequisites: VP-200

This course offers students an opportunity to work closely with faculty to work in the art gallery, develop technical skills, studio projects, and do research to support their creative development. This course is required for the Art Major. It will be geared to the individual needs of each student.
Other or on demand and every year. 1 Credit

## AR-221 Studio Art Practicum LASC Categories: CA

This is the first in a set of three core courses for the Art major. This course focuses on practical and professional art skills including but not limited to the creation of professional documents like resumes, artist statements and proposals, professional internet presence such as websites and social media accounts, art critique work and gallery related content such as exhibition submissions and gallery representation.
Other or on demand and every year. 3 Credits
AR-225 Art Since Mid-20th Century
LASC Categories: CA, GP, WAC, DAC
Explores how artists have challenged the traditional definitions of the art object and the expanded materials, media and concepts employed by artists since 1950 to the present era. Fall only and every year. 3 Credits

## AR-230 Printmaking <br> LASC Categories: CA

Introduction to the techniques and aesthetics of etching and relief. Prints by major artists are examined.
Fall and Spring and every year. 3 Credits
AR-235 3D Sculpture Studio
LASC Categories: CA, GP, WAC
Prerequisites: EN-102
This is an introductory course focusing on form creation grounded in sculptural forms and techniques. Students will create sculpture by exploring traditional techniques such as molding, carving, casting and assemblage using historical and contemporary materials from clay and stone to cardboard and found objects. Historical context, skill development, critical analysis and proper tool usage and safety are emphasized.
Fall and Spring and every year. 3 Credits

## AR-240 Watercolor

LASC Categories: CA, TLC
A studio course exploring various techniques and expressive forms used by watercolorists of the past and present.
Fall and Spring and every year. 3 Credits

## AR-260 Visual Arts in the Schools <br> LASC Categories: CA

An exploration of art materials and concepts, and their appropriate use with children. Includes studio projects, art history, and educational theory. 3 Credits

## AR-270 Driftwood to Dumpsters

LASC Categories: CA, TLC, WAC
Prerequisites: EN-102
Students will learn about the history and practice of making art from non-traditional materials. This is a lecture and hands-on art course.
Every 2-3 years. 3 Credits

## AR-285 History of Photography

LASC Categories: CA, TLC
The history of photography from 1839 to present, with attention to styles, aesthetics, technical processes, and leading practitioners. [Cross-listed with CM-285]
Every 2-3 years. 3 Credits

## AR-308 Thesis Seminar LASC Categories: CA <br> Prerequisites: AR-221.

This course focuses on the research that prepares students for their Capstone. They will evaluate the work of other artists working in their media, make critical judgments about the work they experience in contemporary exhibitions, and present their ideas orally in class presentations. Students will also develop their studio art portfolio and capstone proposal.
Spring only and every year. 3 Credits

## AR-319 Third Year Art Practicum Prerequisites: AR-219

This course consolidates student studio skills, research expertise, and best practices for creative work. Students will initiate the development of a body of work that will lead to Capstone.
Other or on demand and every year. 1 Credit
AR-330 Intermediate Printmaking
Prerequisites: AR-230
Continuation of relief printmaking in an individual direction using tone/color and multiple blocks. Every year. 3 Credits

## AR-350 Special Topics in Art

Prerequisites: one studio course or consent of instructor.
A course covering topics which vary in response to specific student and faculty interest.
Fall and Spring and every year. 3 Credits

## AR-400 Ind Study: Art

An opportunity for further study in a special field of interest under faculty supervision.
Fall and Spring and other or on demand. 3 Credits

## AR-402 Internship in Art

An individual experience through internship with a sponsoring community organization, professional institution or individual, i.e., museums, galleries, artists.
Fall only and other or on demand. 3-6 Credits

## AR-408 Directed Study: Art

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Fall and Spring. 1-3 Credits

## AR-455 Thesis Capstone <br> LASC Categories: CAP

Pre-requisite: Completion of all other major requirements. Students design, and create their work for public presentation. This is the final course in the Art Major and is a requirement for all the majors. Other or on demand and every year. 3 Credits

## Music Courses

MU-101 Fundamentals of Music and Aural Skills LASC Categories: CA
An introduction to reading and writing conventional music notation, the fundamentals of music theory, and basic aural skills. Emphasis will be placed on intervals, scales, chords, rhythmic values, sightsinging, melodic dictation, and aural recognition of intervals and chords.
Every year. 3 Credits

## MU-102 Applied Music <br> LASC Categories: ICW

Prerequisites: Audition required
Audition required. Private instruction in an instrument or voice. Thirteen weekly one-hour lessons. May be repeated. Studio fee required. Instruments offered: brass, guitar, piano, percussion, strings, and winds. Fall and Spring and every year. 1 Credit

## MU-104 Class Piano

LASC Categories: CA
Prerequisites: MU-100 or MU-101
Basic piano technique and pedagogy in a group setting of 12 or fewer
Fall and Spring and every year. 1 Credit

## MU-106 Class Guitar

An introduction to playing the guitar, including technique, reading tabs and notation, and harmonization of melodies with chords. Solo literature appropriate to the level will be studied. Students are required to provide an instrument.
Fall and Spring and every year. 1 Credit
MU-115 Music Appreciation
LASC Categories: CA
General survey of masterpieces of major composers of various periods in history of music. Fall and Spring and every year. 3 Credits

## MU-120 Ear Training

Prerequisites: MU-100 or MU-101
An introductory course in the fundamentals of eartraining and sight-singing. Emphasis will be placed on the development of basic melodic, harmonic, and rhythmic aural skills through listening, dictation, and application of solfege.
Every year. 3 Credits

## MU-125 Jazz Appreciation

LASC Categories: CA, TLC
Surveys the history of jazz beginning with the earliest roots in the American South to today.
Every year. 3 Credits

## MU-140 World Music <br> LASC Categories: CA

An introduction to music of various cultures and continents including music of Africa, Asia, Latin America, the Middle East, and India.
Spring only and every 2-3 years. 3 Credits

## MU-175 Music in America

Survey of music history and literature in America including gospel spirituals, jazz, popular and classical music.
Other or on demand. 3 Credits

## MU-185 Composition I

LASC Categories: CA
Prerequisites: MU 101 Fundamentals of Music Aural Skills OR MU 100 Music Fundamentals
An introduction to compositional methods and techniques. Students develop personal expression by creating musical works while exploring use of melody, harmony, timbre, rhythm, texture, and tonality within conventional musical forms.
Spring only and every year. 3 Credits

## MU-193 Special Topics in Music:First Year Students

 LASC Categories: FYSIntroductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
Every year. 3 Credits

## MU-200 Issues in Music

This course deals with topics of special interest, in both seminars and studio environments at an introductory level.
3 Credits

## MU-202 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week. Student fee required. May be repeated. Offered every semester.
Fall and Spring and other or on demand. 1 Credit
MU-205 Music Theory I
LASC Categories: CA
Prerequisites: MU-100 or 101.
Analysis and application of harmonization techniques using diatonic chords. Further emphasis is placed on voice-leading, figured bass, melodic construction, and embellishing tones.
Spring only and other or on demand. 3 Credits

## MU-215 Chorus and Music Theory

LASC Categories: CA
Prerequisites: Audition Required
Mixed choral repertoire and performance, covering vocal problems and techniques. Introduction to music theory, rhythms, intervals, basic chordal structures, harmonization. Participation in college chorus required.
Fall and Spring and every year. 3 Credits
MU-220 Chorus
LASC Categories: CA
Prerequisites: MU-215
Mixed Chorus repertoire. May be repeated.
Fall and Spring and every year. 0.5-1 Credits
MU-222 African Drumming
LASC Categories: GP, CA, DAC
An exploration of African music and drumming techniques from the culture of Ghana. Students will develop performance skills and present a public performance during the course of the semester. Every year. 0.5-3 Credits

## MU-223 African Drumming II

LASC Categories: CA, GP
Prerequisites: MU 222-African Drumming I, or MU
193-FYS African Drumming from Ghana
This Level 2 ensemble builds on Level 1 in the following ways: (a) learn new drumming styles; (b) improvise with greater freedom; and (c) learn to play lead drum rhythms, with the possibility of performing them in the final performance.
Spring only and every 2-3 years. 3 Credits

## MU-228 Piano Ensemble <br> LASC Categories: CA

Prerequisites: MU-102 or MU-190
A small ensemble for keyboard players who will learn, explore, and perform four- hand piano repertoire.
Every year. 1 Credit

## MU-231 Women in Music

LASC Categories: CA, TLC
A survey of the role of women in music, particularly the great composers from Medieval to Contemporary times.
3 Credits

## MU-237 Music in the Elementary School LASC Categories: CA

Discover the benefits of using music to enrich general education from preschool through high school. Develop your own musicianship through learning to use your singing voice, learning to play the recorder, learning to read notation and gaining an overview of western music history.
Other or on demand. 3 Credits

## MU-250 Music of the Cinema:Spectacle, Splendor, And Spielberg <br> LASC Categories: CA, TLC

An introduction to the role, impact, and importance of music in motion pictures from silent movies through contemporary film.
Spring only. 3 Credits

## MU-275 Computers and Music

An introduction to computer music technologies with emphasis on use of electronics and computers in music composition and performance, Further emphasis will be placed on basic acoustics, perception of sound, application of computer music in experimental genres, digital recording, mixing, fundamentals of sound synthesis and digital signal processing.
Other or on demand and other or on demand. 3 Credits

## MU-280 History of Music

LASC Categories: CA
A general survey of western art music covering the historical periods of the Medieval, Renaissance, Baroque, Classical, Romantic, and 20th Century. Fall and Spring and every year. 3 Credits

## MU-285 Composition II

Prerequisites: MU-185 or MU-204, and MU-205.
A continuation of Composition I. Students will explore methods of tonal composition Emphasis will be placed on melodic writing, harmonization practices, chord substitutions, use of figurations, texture, and timbre in tonal music. Experimentation with rhythmic and metric practices including asymmetry, shifting accents, changing time signatures, and ostinato.
Fall and Spring and every year. 1 Credit

## MU-300 Chorale

LASC Categories: CA
Prerequisites: Audition Required
Study and performance of a cappella choral literature from the Middle Ages to contemporary times. May be repeated. Audition required for enrollment. Every year. 0.5-1 Credits

## MU-302 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week. Student fee required. May be repeated. Offered every semester.
Fall only and every year. 1 Credit

## MU-305 Music Theory II

LASC Categories: CA
Prerequisites: MU-205
Harmonization of melodies using primary and secondary chords, harmonic analysis of tonal music from the Common Practice Period, including diatonic and chromatic chords, secondary dominants, modulation, and aural skills. An introduction to formal schemes in music including phrase structure, binary and ternary and form, sonata form, and species counterpoint.
Fall only and every year. 3 Credits
MU-310 The American Musical in Performance
Study, rehearsal and performance of a great
American musical. Music, acting and dance will all be skills which are developed.
Every 2-3 years. 3 Credits

## MU-321 Small Ensemble <br> LASC Categories: ICW, CA

The performance of musical works by a small ensemble. By permission of instructor or audition. Fall and Spring and every year. 0.5-1 Credits

## MU-326 Chamber Orchestra <br> LASC Categories: CA

In this class the students will rehearse and perform music from the orchestral repertoire in a variety of styles and genres and from varied periods. All woodwind, string, brass, keyboard and percussion instruments are eligible to participate. 1 credit section for those repeating the class in another semester and those in proposed revised music minor; .5 credit section for VPA music concentrators Pre-requisite: Audition for Instructor
Fall and Spring and every year. 0.5-3 Credits

## MU-330 Jazz Ensemble

LASC Categories: ICW, USW, DAC
An ensemble where students learn to perform traditional jazz repertoire, as well as original compositions. Through rehearsing, performing, directed listening and ear training, students will learn: (a) conceptual approaches to improvising and composing; (b) harmonic, melodic and rhythmic theory specific to the jazz idiom; and (c) methods for connecting audiation to instrumental playing. Special emphasis will be on jazz standards, especially those with a blues form. 3 credits 1 credit if repeating . 5 for Visual and Performing Arts majors with music concentration or focus and those who minor in composition and music technology Fall and Spring and every year. 0.5-3 Credits

## MU-375 Sound Synthesis

Prerequisites: MU-275
A continuation of MU 275 Computers and Music. Focus on application of sound in composition acoustics and additive synthesis, modulation and waveshaping, signal flow, processing, digital filtering, reverberation, and sample processing.
Other or on demand and other or on demand. 3 Credits

## MU-385 Composition III

Prerequisites: MU 285/Composition II MU 305/Music Theory I (currently MU 210)
An exploration of compositional practices presented during Composition II. Students will compose absolute music in the style of the Common Practice Period as well as work with superimposed chords, shifting tonality, pandiatonicism, large-scale forms, polyrhythms, and polymeter, This course introduces to composing tonal music for non-musical genres including media, video games, incidental music for theater and film.
Other or on demand and every year. 1 Credit
MU-400 Independent Study in Music
Prerequisites: Consent of Instructor
An opportunity for further study in a special field of interest under faculty supervision.
Fall and Spring and every year. 1-6 Credits

## MU-402 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week. Student fee required. May be repeated. Offered every semester.
Fall and Spring. 1 Credit

## MU-408 Directed Study: Music

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## MU-410 Special Topics in Music

This course will allow members of the music faculty to develop courses of special interest. This would include seminars on specific composers or compositions, in both classroom and applied studio enviorments.
0.5-3 Credits

## MU-485 Composition IV

Prerequisites: MU-385
Compositional techniques of the 20th-century including modality, parallelism, atonality, serialism, electronic music, aleatory, music concrete, and sound synthesis.
Other or on demand and other or on demand. 1 Credit

## Theatre Courses

## TH-126 Script Analysis

LASC Categories: CA, TLC, DAC
Script analysis for theatre artists. How to take a script from initial reading to production.
Other or on demand. 3 Credits

## TH-145 Acting I

LASC Categories: CA
Introductory acting theory and practice. Students present brief monologues and scenes in class.
Fall and Spring and every year. 3 Credits

## TH-155 First-Year Theatre Practicum

Practical work in Theatre production for first-year students.
Fall and Spring and every year. 1 Credit

## TH-175 Introduction to Stagecraft

LASC Categories: CA, QR
An introductory class to major types of Stagecraft for live theatre. Students will learn in formal classes and in 30 hours of scheduled laboratories about set construction, costume construction and lighting technology. Students will learn the vocabulary of technical theatre and will learn geometric and mathematical methods required for each of the three main areas covered.
Fall and Spring and every year. 3 Credits

## TH-191 Introduction to the Theatre

LASC Categories: CA
An overview of live performance, with the emphasis on audience appreciation. Performance arts and crafts are examined.
Fall and Spring and every year. 3 Credits
TH-193 Special Topics in Theater.First-Year Students LASC Categories: FYS
Introductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar. Every year. 3 Credits

## TH-235 History of Theatre LASC Categories: GP, TLC, DAC

Survey of world theatre including from its ritual origins through the classical era, medieval era, the renaissance, the restoration, the modernist revolution to the present day. This global approach includes historical examples from Europe, Africa, Asia, North America, and South America.
Fall and Spring and every year. 3 Credits

## TH-246 Voice and Movement

Prerequisites: TH-145.
Training to strengthen the natural voice, develop diction, learn period movement and develop spatial awareness on and off stage.
Every year. 3 Credits

## TH-255 Second-Year Theatre Practicum

Practical work in Theatre production for second-year students.
Every year. 1 Credit

## TH-263 Concepts of Theatre Design <br> LASC Categories: CA

This is a fundamental design course for live theatre, but will also apply to other design fields. Drawing, both freehand and digital, will be studied. Students will learn the elements and principles of design, and how to apply them to Scenic, Costume and Lighting Design, as well as other modes of 2-dimensional and 3-dimensional art. Additive and subtractive color theory will be covered. Students will learn the specialized language of design and will study how to approach the three areas of design aforementioned. Other or on demand and every year. 3 Credits

## TH-270 History of American Entertainment I <br> LASC Categories: CA, USW

An historical survey of American popular entertainments from the Colonial period through the end of the nineteenth century.
Every year. 3 Credits

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## TH-272 History of Costume LASC Categories: CA

The history of clothing from ancient times to the present. Lecture/discussion and a research project on a chosen era or culture.
Every 2-3 years. 3 Credits

## TH-274 Stage Management

 LASC Categories: CA, QACAn introduction to the craft of stage management focussing on the techniques, responsibilities and duties necessary to manage both rehearsals and performances.
Every year. 3 Credits

## TH-290 Theatre for Young Audiences

LASC Categories: ICW, CA, DAC
Organization of children's theatre, script selesction, visual design, rehearsal and performance.
Investigation of creative drama as a teaching tool in elementary education.
Spring only and other or on demand. 3 Credits

## TH-292 Applied Theatre and Community Engagement

 LASC Categories: CA, ICWPrinciples and techniques of leading improvised dramatic activities with children and adults. Involves sensory awareness, imagination, movement and story dramatizations.
Every year. 3 Credits

## TH-321 Rehearsal and Performance

LASC Categories: CA
Public performance of full-length stage productions under faculty direction. Students assume
performance and/or production "roles" as described in departmental manual.
Spring only and every year. 3 Credits

## TH-345 Acting II

Prerequisites: TH-191 TH-145
Further development of acting skills with emphasis on stage-acting technique.
Every year. 3 Credits

## TH-348 Stage Combat

LASC Categories: CA, ICW
Prerequisites: TH-191 or TH-145.
Training in armed and unarmed combat for the stage. emphasis will be placed on safety in the choreography of stage fighting.
Every year. 3 Credits
TH-355 Third-Year Theatre Practicum
Practical work in Theatre production.
Fall and Spring and every year. 1 Credit

## TH-360 Scenic Design for Theatre <br> LASC Categories: CA

Scenic Design for Theatre will include research, drafting, drawing and rendering, model building and presentation of scenic designs for assigned plays. Every year. 3 Credits

## TH-370 Costume Design for Theatre <br> LASC Categories: CA

Conceptualization, collaboration, research, figure drawing and rendering, swatching, and presentation of costume designs for assigned plays.
Every year. 3 Credits

## TH-380 Directing

Prerequisites: TH-145 and TH-191
Script selection, casting, scene analysis, blocking, rehearsal techniques and other concerns of the theatrical director. Students direct a short scene and short plays.
Every 2-3 years. 3 Credits

## TH-390 Lighting Design for Theatre

LASC Categories: CA
Study and exercises in conceptualization, collaboration, design presentation, qualities and functions of light, drafting the light plot, and control of theatrical lighting.
Every year. 3 Credits

## TH-399 Special Topics in Theatre

Will include study of topics on an as needed basis, (i.e. in conjunction with a production, or a course for advanced students who wish to pursue further study).
Other or on demand and other or on demand. 3 Credits

## TH-405 Independent Study in Theatre

Offers motivated students the opportunity to study
a theatre topic not covered in the established curriculum.
Other or on demand and other or on demand. 1-6 Credits

## TH-408 Directed Study: Theatre

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## TH-435 Internship in Theatre

Provides an opportunity for students in good standing to gain practical experience with professional theatre or related organizations. Other or on demand and other or on demand. 1-12 Credits

## TH-455 Theatre Capstone <br> LASC Categories: CAP, WAC

Prerequisites: TH-155 and TH-255 and TH-355
Theatre students will create a senior thesis project/ capstone in acting, directing, design, playwriting, craft or dramaturgy, chosen in consultation with a faculty advisor and demonstrating the skills learned in their studies. The capstone may be part of a mainstage production or a student generated project. Each capstone project will be accompanied by a written analysis showing their research or fulldocumentation of their process.
Fall and Spring and every year. 3 Credits

## Visual and Performing Arts Courses

VP-155 First Year Practicum
Students will put into practice interdisciplinary concepts, ideas, and techniques at an experiential level.
Spring only and every year. 1 Credit
VP-193 Special Topics in Visual and Performing Arts: First-Year Students
LASC Categories: FYS
Introductory level courses covering topics of special interest to first-year students. Offered only as FirstYear Seminar.
Every year. 3 Credits
VP-200 Critical Thinking in the Arts
LASC Categories: CA, TLC, DAC, QAC
The experience of art, music, and theatre to develop individual critical thinking in the similarities and differences among the arts.
Every year. 3 Credits
VP-210 Contemporary Dance Styles I
LASC Categories: CA
The study and movement of dance vocabularies in one or more contemporary and modern styles. Every year. 3 Credits

## VP-255 Second Year Practicum

Prerequisites: VP-155
Students will put into practice interdisciplinary concepts, ideas, and techniques at a exploratory level.
Spring only and every year. 1 Credit

## VP-355 Third Year Practicum

Prerequisites: VP-155 and VP-255
Students will put into practice interdisciplinary concepts, ideas, and techniques at an experimental level.
Spring only and every year. 1 Credit

## VP-364 Interdisciplinary Arts Theory

Prerequisites: VP-200
An exploration of interdisciplinary art theory drawing on theories and critical writings from Art, Music, and Theatre from a variety of historical periods.
Fall and Spring and every year. 3 Credits
VP-365 Interdisciplinary Arts Practice
Prerequisites: VP-200
Examines examples of contemporary modes of interdisciplinary works of music, theatre, and visual art with the goal of developing an individual, creative aesthetic.
Spring only and every year. 3 Credits
VP-405 Independent Study in the Arts
Prerequisites: Permission of Instructor
An opportunity for advanced students to examine topics not ordinarily covered in other arts courses. Every year. 1-6 Credits

VP-408 Directed Study: Visual \& Performing Arts
Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## VP-410 Special Topics in the Arts

Study of topics not otherwise covered in the curriculum. [Prerequisite: [2 VP courses]
Fall and Spring and every year. 3 Credits
VP-435 Internship in the Arts
Advanced students gain practical experience in a working arts environment.
Fall and Spring and every year. 3-12 Credits

## VP-455 Arts Capstone/Senior Thesis <br> LASC Categories: WAC, CAP <br> Prerequisites: VP-200, and EN-102 <br> Students design and create a work or works of art, music, or theatre for public presentation. <br> Every year. 3 Credits <br> Program Learning Outcomes <br> Art

- Acquire the principles of art and design.
- Demonstrate knowledge of traditional and contemporary art practices.
- Cultivate aesthetic and conceptual judgments.
- Develop skills in critical thinking and analysis.
- Demonstrate effective written, oral, and visual communication skills.
- Produce artwork in a variety of media and techniques.


## Theatre

- Acquire the critical language for the analysis and interpretation of theatre
- Demonstrate aesthetic literacy over historical periods and cultures that pertain to the production and interpretation of theatre
- Apply theoretical knowledge and concepts to the creation and critical analysis of theatre
- Utilize critical thinking skills in the production of theatre


## Visual and Performing Arts

- Acquire the critical language for the analysis and interpretation of art forms
- Demonstrate aesthetic literacy over historical periods and cultures that pertain to the production and interpretation of art
- Apply theoretical knowledge and concepts to the creation and critical analysis of art forms
- Utilize critical thinking skills in the production of creative work


## Business Administration Department of Business Administration and Economics

The Business Administration program enables students to acquire competencies necessary to manage the business, human, financial, and technological resources of organizations. The major in Business Administration offers six concentrations: Management, Accounting, Finance, Marketing, International Business, and Entrepreneurial Studies and Small Business Management.

## Admission Requirements

Application to the department after completion of the following prerequisite courses:

| Code | Title | Credits |
| :---: | :---: | :---: |
| CS-120 | Microcomputer Applications | 3 |
| EC-110 | Introduction to Microeconomics | 3 |
| EC-120 | Introduction to Macroeconomics | 3 |
| EN-253 | Business Communications | 3 |
| $\begin{aligned} & \text { MA-150 } \\ & \text { or EC-150 } \end{aligned}$ | Statistics I <br> Statistics | 3 |
| MA-202 or EC-202 | Business Calculus <br> Introduction to Mathematical Economics | 3-4 |
| Total Credits |  | 18-19 |

To be accepted to the major, a student must complete all prerequisite courses with a C (2.0) or better average. Prerequisite courses may be completed after acceptance with department approval.

- 4+1 Program (p. 330)
- Business Administration Major (p. 332)
- Business Administration Major, Concentration in Accounting (p. 334)
- Business Administration Major, Concentration in Entrepreneurial Studies and Small Business Management (p. 335)
- Business Administration Major, Concentration in Finance (p. 335)
- Business Administration Major, Concentration in International Business (p. 336)
- Business Administration Major, Concentration in Management (p. 337)
- Business Administration Major, Concentration in Marketing (p. 338)
- Business Administration Minor (p. 338)


## Faculty

Abir A. Bukhatwa, Assistant Professor (2019), B.A., M.A., University of Benghazi; M.A., Ph.D., Clark University

Lagnajita Chatterjee, Assistant Professor (2020), B.S., University of Calcutta; M.S., University of Allahabad; Ph.D., University of Illinois at Chicago

Mary E. Clay, Professor (2012), B.S., Fitchburg State University; M.B.A., Anna Maria College; D.B.A., Argosy University; C.P.A., Commonwealth of Massachusetts

Laurie A. Dahlin, Professor (2001), B.S., Nichols College; M.B.A., Assumption College; D.B.A., Nova Southeastern University; C.M.A., Institute of Management Accountants

Paul A. Dubrey, Jr, Associate Professor (2016), B.S., Assumption College; M.B.A., Nichols College; C.P.A., Commonwealth of Massachusetts; D.B.A., Walden University

Bo Fan, Assistant Professor (2019), B.B.A., B.CST., Shenyang Institute of Technology; M.S., Ph.D., Southern New Hampshire University

Tejendra N. Kalia, Professor (2004), B.E., Indian Institute of Technology; M.E., McGill University; M.B.A., Anna Maria College; D.B.A., Nova Southeastern University

Mark L. Love, Department Chair, Associate Professor (2006), B.S.B.A., M.B.A., Nichols College; C.P.A., Commonwealth of Massachusetts

Kaushik Mukherjee, Assistant Professor (2022), B.S., Jadavpur University; M.B.A., Xavier School of Management, India; Ph.D., University of Mississipi

Rodney Oudan, Professor (2005), PgCert., University of the West Indies, UWI; M.M., Cambridge College ; D.B.A., Nova Southeastern University

Miriam L. Plavin-Masterman, Associate Professor (2013), B.S., Cornell University; M.B.A., Dartmouth College; M.A., Ph.D., Brown University

Michael Shamgochian, Visiting Assistant Professor (2021), B.A., University of Massachusetts Amherst; J.D., Suffolk University Law School

Elizabeth A. Siler, Professor (2008), B.A., Boston University; M.B.A., Simmons College; Ph.D., University of Massachusetts, Amherst

Lingling Wang, Associate Professor (2016), B.A., Xi'an International University; M.B.A., Ecuador Military
School of Technology; M.S., D.B.A., Southern New Hampshire University

Elizabeth J. Wark, Professor (2007), B.A., Mount Holyoke College; M.B.A., University of Massachusetts; M.A., Ph.D., Clark University

## Courses

BA-100 Introduction to Business
Introduction to basic concepts related to business practices; includes examination of local, regional and national organizations in the business world. 3 Credits

## BA-193 Special Topics in Business First -Year

 StudentsLASC Categories: FYS
Introductory level course covering topics of special interest to first-year students or offered only as a First-Year Seminar. 3 Credits

## BA-200 Principles of Management

Study of management practices and behavior in organizational settings; emphasis on introduction to managerial principles, concepts and fundamentals. 3 Credits

## BA-210 Financial Accounting I

Principles, concepts, procedures, and techniques of financial accounting necessary for preparation, understanding, and interpretation of accounting information.
3 Credits

## BA-220 Financial Accounting II

Prerequisites: BA-210
Continuation of the topics covered in BA 210. 3 Credits

## BA-230 Managerial Accounting

Prerequisites: BA-220
Analysis, interpretation and use of accounting data for effective managerial planning, control and decision-making.
3 Credits

## BA-250 Analytical Techniques in Business

Prerequisites: BA-200 and BA-210.
Identification and analysis of common business problems using proper quantitative techniques and standard business software.
Fall and Spring and every year. 3 Credits

## BA-300 Organization Theory

Prerequisites: BA-200
A macro examination of organizations utilizing current research findings based largely upon a systems/contingency framework, designed to improve organizational effectiveness.
3 Credits

## BA-302 Introduction to Entrepreneurship

Students learn and explore the nature and challenges of entrepreneurship; explore the life cyle of opportunity-launch-growth-fruitage of the venture. 3 Credits

## BA-303 Small Business Management

This course focuses on essential management skills relating to starting and managing a small business where one or few individuals provide initial financing. 3 Credits

BA-304 Women Entrepreneurs and Leaders
Students will focus on the research of women business leaders and the roles they have played in the global economy.
3 Credits

## BA-305 Organizational Behavior

Prerequisites: BA-200
Study of organizational effectiveness and quality of working life, through individual, organizational, and contextual level theories and practices.
3 Credits
BA-306 Human Resource Management
Prerequisites: BA-305
An examination of human resource management including employment laws, recruiting/selection, training/development, and benefits/compensation administration.
3 Credits

## BA-312 Operations Management I

Prerequisites: BA-200, and MA-150 or EC-207 or EC-150
Applied analysis of operations in service and production systems using quantitative models and calculus, inventory, work measurement, scheduling, quality control.
Fall and Spring and every year. 3 Credits

## BA-316 Financial Management LASC Categories: QAC

Prerequisites: BA-220
Financial analysis, working capital management, and basics of capital budgeting.
3 Credits

## BA-318 Principles of Marketing

Prerequisites: BA-200, EC-110 and EC-120.
Overview of the full range of activities involved in marketing; develops an understanding of marketing strategy and processes.
3 Credits
BA-320 Business Law I
Prerequisites: BA-200
Introduction to legal concepts as applied to the study of contracts, personal property, sales, and the Uniform Commercial Code.
3 Credits
BA-321 Business Law II
Prerequisites: BA-320
Continuation of topics covered in BA320. Study of laws of partnerships and corporations. 3 Credits

BA-327 Ethical Decision Making in Business
Prerequisites: BA-200, BA-210, and BA-318
This course will identify, discuss, and analyze ethical issues faced by business professionals and discuss approaches for resolving ethical dilemmas. 3 Credits

## BA-350 Business Information Systems and

Applications
Prerequisites: BA-250.
Survey of automated business information systems and microcomputer applications with emphasis on business oriented software.
Fall and Spring and every year. 3 Credits

## BA-351 Managing Ebusiness

Digitizing new forms of business organizations to create business-to-business partnerships, business-to-consumer relationships, pathways-to- profitability; legal,ethical, social, political and global issues. 3 Credits

## BA-355 Insurance and Risk Management

Prerequisites: BA-200
This survey course covers the identification and evaluation of risk and techniques for the management of risk. Commercial and personal risks are studied from the points of view of the corporation, the individual, and the insurer. Areas of emphasis include commercial property, business liability, workers compensation, automobile, life, health, disability, and income insurance.
3 Credits

## BA-362 Accounting for Non-Profit Organizations

Prerequisites: BA-371
Specialized area of accounting for unique requirements for non-profit organizations; includes analysis of budgeting, financial statements and other unique accounting requirements needed by management to assess the controls of a non-profit entity.
3 Credits
BA-370 Intermediate Accounting I
Prerequisites: BA-210 and BA-220
Accounting theory, principles, concepts, and procedures applied to balance sheet, and income statement accounts. Presentation and interpretation of financial reports.
3 Credits

## BA-371 Intermediate Accounting II

Prerequisites: BA-370
Continuation of BA-370.
3 Credits

## BA-372 Advanced Accounting I

Prerequisites: BA-370
Examines specialized topics in accounting including business combinations, partnerships, foreign currency transactions and translation, IFRS, nonprofit and governmental accounting.
3 Credits

## BA-374 Cost Accounting

Prerequisites: BA-200, BA-210 and BA-220
Accounting for costs in business enterprises.
Emphasis placed on fundamental principles including job order, process, and standard costs.
3 Credits

## BA-375 Federal Income Taxes I

Prerequisites: BA-370
A study of federal income taxation as applied to individuals.
3 Credits

## BA-376 Auditing

Prerequisites: BA-370
Basic auditing concepts and developments and their application to the examination, evaluation, and reporting of financial data.
3 Credits
BA-377 Federal Income Taxes II
Prerequisites: BA-375
Federal income taxes for corporations and partnerships.
3 Credits

## BA-380 Negotiations

Prerequisites: BA-200, BA-210, BA-220, BA-305, EC-110, and EC-120
This course focuses on effective negotiations, conflict management, and power and influence in organizational and other settings.
3 Credits

## BA-385 Leadership

Prerequisites: BA-200 and BA-305
This course focuses on leadership theories, skills and applications. Self-assessment and reflection are important learning components of this course. 3 Credits

BA-390 Business and Social Research Methods LASC Categories: WAC
Prerequisites: BA-200 and EN-102
An overview of research design approaches and the basic techniques of data collection employed by social scientists conducting empirical research. 3 Credits

BA-400 Management and Organizational Behavior I Prerequisites: BA-305
Study of concepts, theory, research and operational problems of organizational behavior; work groups and intergroup behavior models.
3 Credits

BA-401 Management and Organizational Behavior II Prerequisites: BA-400
Continuation of topics covered in BA 400 with additional theory and case studies; behavioral science/systems approach is taken.
3 Credits

## BA-402 Designing the Business Plan

Prerequisites: BA-302 or consent of instructor. Develop a complete business plan, including value propositions, market and product feasibility analyses, and projected financial statements.
Fall only and every year. 3 Credits

## BA-404 Corporate Finance

Prerequisites: BA-316
Advanced capital budgeting, capital structure, longterm financing decisions, dividend policy, computer modeling, comprehensive financial strategy cases. 3 Credits

## BA-406 Trends in Marketing

Prerequisites: BA-318
Integrates all aspects of marketing theory through readings, case studies, class projects, individual projects and computer simulation of marketing decisions.
3 Credits
BA-408 Directed Study: Business Administration
Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## BA-414 Real Estate Investment

Prerequisites: BA-316
This course covers the fundamental concepts, principles, analytical methods, and tools used in making residential and commercial real estate investment decisions.
3 Credits

## BA-415 Investment Analysis

Prerequisites: BA-316
Survey of investment vehicles, including stocks, bonds, real estate, commodities, mutual funds, and collectibles. Modern portfolio and valuation theories. 3 Credits

## BA-416 Financial Markets and Institutions

Prerequisites: BA-316
Study of banks, investment banking, money markets, and the financial service industry as they affect long and short-term financing decisions.

## 3 Credits

## BA-420 Marketing Research

Prerequisites: BA-318
Nature and scope of marketing research. Application of scientific methods, sources, and collection of data, reporting and evaluation.
3 Credits

## BA-422 Retailing

Prerequisites: BA-318
Demand analysis, consumer behavior, planning, and control of the merchandising functions; retailing as a career.
3 Credits

## BA-424 Advertising Management

Prerequisites: BA-318
Advertising from a planning perspective. Advertising and professional promotion strategies with execution and control activities.
3 Credits

## BA-426 Consumer Behavior

Prerequisites: BA-318
The analysis of the consumer decision process as it affects marketing management decisions. Major factors of influence in this process will be studied including culture, social class, family, and reference groups.
3 Credits

## BA-428 Business to Business Marketing

Prerequisites: BA-318
Explores business markets that account for more than half the economic activity globally. 3 Credits

BA-429 Integrated Marketing Communications Prerequisites: BA-318
This course is designed for students who have an interest in increasing their knowledge of the marketing promotional process.
3 Credits
BA-430 Administrative Practices and Management Prerequisites: BA-305
Overview and analysis of human conduct in workorganization settings.
3 Credits

BA-434 Management and Corporate Responsibility Prerequisites: BA-200
The theoretical and practical relationships of corporate conflicts of interest, self-regulation, product liability, employee rights, etc., to management decisions.
3 Credits
BA-440 International Business and Management Prerequisites: BA-316 and BA-318
Study and analyze the nature, structures and strategies of international/global businesses. Examine international markets, economic systems, value-chains and core competencies of a firm. 3 Credits

## BA-450 Health Systems in America

A course focusing on the administration of institutions in the health area.
3 Credits

## BA-470 Current Issues in Finance and Business

 AdministrationLASC Categories: WAC
Prerequisites: Complete Writing II and BA-305 and BA-316 and BA-318
This course provides a foundation in Information literacy related to the functional areas of Business Administration, with a particular focus in finance. The course examines current events in the business world and their applications to Accounting, Finance, Management, Marketing and/or Operations.
3 Credits
BA-474 Corporate Law
Prerequisites: BA-320
Corporate powers and corporate management.
Designed for future corporate executives and accountants.
3 Credits

## BA-480 The Legal Environment of Business

Prerequisites: BA-200
The impact of governmental regulation on business and its response will be evaluated by unique debatetype format.
3 Credits
BA-481 Independent Study in Business
Administration
Prerequisites: BA-200
Independent study in business administration, usually involving field work which is not an internship.
1-6 Credits

## BA-482 Selected Topics in Business Administration

 Prerequisites: BA-305, BA-316, and BA-318Selection of topics of mutual interest to the student and faculty.
1-6 Credits

## BA-483 Internship in Health Administration

Practical experience in operations of health administration, internships within cooperative health facilities with on-site supervision and evaluation. 1-6 Credits

BA-486 Internship in Business Administration Prerequisites: BA-305, BA-316, and BA-318 Practical experience in operations of business. Internships within co-operative business firms with on-site supervision and evaluation.
1-12 Credits

## BA-490 Business Strategy and Policy

LASC Categories: CAP
Prerequisites: BA-316 and BA-318
Capstone course integrating information provided in the functional areas such as finance, marketing, general management, business legal environment. 3 Credits

BA-491 Independent Study in Health Administration Independent study in health, usually involving field work which is not an internship.
1-6 Credits
BA-492 Selected Topics in Health Administration Selected topics in health administration of mutual interest to the student and faculty. 1-6 Credits

## BA-494 International Marketing

Prerequisites: EC-120 BA-318
With the rapid and continuous changes in global environment we will examine the complex issues in international marketing faced by today's manager. 3 Credits

## Program Learning Outcomes

- Graduates have developed a basic foundation in the key functions of business - accounting, economics, finance, international business, management, management information systems, marketing, operations, and statistics.
- Graduates have demonstrated the leadership and business decision-making skills necessary to perform effectively in a professional context.
- Graduates have participated in experiential learning in at least one of the following ways: internships, class projects, simulations, interaction with members of the business community, and/or service leadership.
- Graduates will be able to analyze various problems and create realistic solutions, both individually and as part of teams and groups, using artifacts such as problem and case analysis, integrated modules, and consulting opportunities.
- Using appropriate technologies effectively, graduate will be able to communicate effectively their work orally and/or in written format to a diverse audience both internal and external to an organization.
- Graduates have been aware of globalization and its impacts on people, businesses, and the economy.
- Graduates have developed an understanding of team processes and dynamics and collaborative participation in group projects throughout the curriculum.
- Graduates have worked effectively in teams demonstrating leadership skills, social, collaborative, and interpersonal skills necessary for future professional growth and development.
- Graduates have developed an ethical perspective in legal business practices within domestic and global business environment and are exposed to values issues and application of values to business professions.


## 4+1 Program

The Department of Business Administration and Economics offers a $4+1$ program that allows Business Administration majors with GPAs of 3.0 or higher to gain admission to the M.S. in Management during their junior year (they may apply once they have completed 75 credits or after the completion of eight Business Administration courses for transfer students) and to a begin taking classes as a senior. In order to complete the joint degree, in the final year of their bachelor's work, students may take two graduate level courses ( 6 credits). Please see the note below regarding which graduate classes may also count within the undergraduate Business Administration major degree requirements. These graduate credits may be included in the undergraduate tuition of full-time state supported
students. Students should take at least one summer class between the Spring of their undergraduate graduation and the Fall in which they embark on fulltime graduate studies. Taking the graduate credits as an undergraduate and the summer class(es) may allow students to complete course requirements for the bachelor's and master's degree in five years (60 months). For more details, students should consult with the graduate coordinator of the M.S. in Management Program. Other courses may count in both the undergraduate and graduate programs with the permission of the graduate coordinator.

Undergraduate Business Administration majors who are accepted into the $4+1$ program may take the following graduate courses ( 6 credits maximum) and count them in both their Business Administration undergraduate major and M.S in Management program. These courses will appear at the 500 level on their undergraduate transcripts and will be transferred at the 900 level for the M.S in Management program once they have completed their Bachelor of Science degrees. Students must have permission of the graduate instructor and the M.S. in Management graduate coordinator to take any graduate classes before they have finished their undergraduate degree program.

| Code | Title | Credits |
| :---: | :---: | :---: |
| BA-960 | Leadership Theory and Skills (may count in the BA electives or in the management concentration) | 3 |
| BA-962 | Ethics and Social <br> Responsibility of Leadership <br> (may count in the BA <br> electives or in the <br> management concentration) | 3 |
| BA-915 | Corporate Finance (this may be counted as a substitute for BA-404 in the BA electives or within the finance concentration.) | 3 |
| BA-912 | Marketing Management (this may count in the BA electives or within the marketing concentration) | 3 |

The Department of Business Administration and Economics also offers a $4+1$ program that allows declared Business Administration minors with GPAs of 3.0 or higher to gain admission to the M.S. in Management during their junior year (they may apply
once they have completed 75 credits and after the completion of all Business Administration minor courses) and to a begin taking classes as a senior. In order to complete the joint degree, in the final year of their bachelor's work, students may take two graduate level courses ( 6 credits). Students must apply online for the M.S. in Management program and include 3 letters of recommendation and official transcripts from all colleges/universities that they have attended.
$\left.\begin{array}{llr}\text { Code } & \text { Title } & \text { Credits } \\ \text { Business Administration Minor Requirements } & \begin{array}{r}(27 \\ \text { credits) }\end{array} \\ \text { EC-150 } & \text { Statistics } & 3 \\ \text { or MA-150 } & \text { Statistics I } & 3 \\ \text { EC-110 } & \text { Introduction to } & \\ & \text { Microeconomics } & \\ \hline \text { or EC-120 } & \text { Introduction to Macroeconomics }\end{array}\right]$

Select any four additional BA courses 12

Students may choose one of the following EC courses as an elective BA minor course:

| EC-205 | Money, Banking, and <br> Monetary Policy |
| :---: | :--- |
| EC-301 | Economic Development |

Please note: Students may need to complete additional undergraduate prerequisites beyond minor courses in order to complete the full prerequisites for the M.S. in Management program. These prerequisites are listed in the catalog for the 3 tracks: Accounting, Leadership and Marketing.

## Process for Business Minors to be eligible to apply for 4+1 option within the M.S. in Management Program. (**Denotes this application process already in place for BA majors):

1.Students must add a Business Minor to their degree audits.
2. Students must have completed at least 75 total credits.**
3. Students must have an overall GPA of 3.0 or higher.**
4. Students must apply online for the M.S. in Management program and include 3 letters of recommendation and official transcripts from all colleges/university that they have attended.**

## 5. Students must have completed all the courses in the Business Minor to be eligible to apply to the 4+1 option.

See below for a copy of the current Business Minor (27 credits).
a. EC-150: Statistics (QR) or MA-150: Statistics I 3 credits
b.EC-110: Introduction to Microeconomics (HBS) 3 credits
or EC-120: Introduction to Macroeconomics (HBS)
c. BA-200: Principles of Management 3 credits
d. BA-210: Financial Accounting I

3 credits
e. BA-250: Analytical Techniques in Business 3 credits

Select any four additional BA courses 12 credits

Note: students may choose one of the following EC courses as an elective BA minor course.
EC-205: Money, Banking, and Monetary Policy
EC-301: Economic Development
EC-307: International Finance
EC-308: International Trade
6. Please note: Students may need to complete additional undergraduate prerequisites beyond the minor courses in order to complete the full prerequisites for the M.S. in Management program. These prerequisites are listed in the catalog for the 3 tracks: Accounting, Leadership and Marketing.

## Business Administration Major

## Requirements for a Major in Business Administration

48 credits in Business Administration, of which a minimum of 25 must be completed at Worcester State University.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Ancillary Courses |  | (15-16 |
|  |  | credits) |
| EC-110 | Introduction to | 3 |
|  | Microeconomics |  |
| EC-120 | Introduction to | 3 |
|  | Macroeconomics |  |
| EN-253 | Business Communications | 3 |
| MA-150 <br> or EC-150 | Statistics I | 3 |
|  | Statistics |  |
| MA-202 <br> or EC-202 | Business Calculus | 3-4 |
|  | Introduction to Mathematical |  |
|  | Economics |  |
| Common Business | Core | (36 |
|  |  | credits) |
| Lower Division |  |  |
| BA-200 | Principles of Management | 3 |
| BA-210 | Financial Accounting I | 3 |
| BA-220 | Financial Accounting II | 3 |
| BA-230 | Managerial Accounting | 3 |
| BA-250 | Analytical Techniques in | 3 |
|  | Business |  |
| Upper Division |  |  |
| BA-305 | Organizational Behavior | 3 |
| BA-312 | Operations Management I | 3 |
| BA-316 | Financial Management | 3 |
| BA-318 | Principles of Marketing | 3 |
| BA-350 | Business Information | 3 |
|  | Systems and Applications |  |
| BA-320 | Business Law I | 3 |
| or BA-480 | The Legal Environment of Bus | ness |
| BA-490 | Business Strategy and Policy | 3 |
| BA Electives |  | (12 |
|  |  | credits) |
| Other Upper Division (300-level or above) |  | 12 |
| Business Administration courses |  |  |

Note: A student may apply any two of the following EC courses towards the BA major as either part of the BA electives or as courses within either the Finance or International Business concentration or within the BA minor.

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-205 | Money, Banking, and <br> Monetary Policy (Finance <br> Concentration) | 3 |
| EC-301 | Economic Development <br> (International Business <br> Concentration) | 3 |
| EC-307 | International Finance <br> (Finance or International <br> Business Concentration) | 3 |
| EC-308 | International Trade <br> (International Concentration) | 3 |

Once LASC requirements are satisfied, students may select general requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Sample Timeline for Completion of Degree <br> Business Administration

(For all students entering in Fall 2012 or later. LASC courses may be taken in a different sequence than shown below, pending course availability and student preferences.)

| Year One |  |  |
| :---: | :---: | :---: |
| Semester One |  | Credits |
| LASC | First-Year Seminar (FYS) (p. 50) | 3 |
| EN-101 | College Writing I (WR) | 3 |
| BA-200 | Principles of Management | 3 |
| $\begin{aligned} & \text { EC-150 } \\ & \text { or MA-150 } \end{aligned}$ | $\begin{aligned} & \text { Statistics (QR) }{ }^{1} \\ & \text { or Statistics I } \end{aligned}$ | 3 |


| EC-120 | Introduction to <br> or EC-110 <br> Macroeconomics (HBS) <br> or Introduction to <br> Microeconomics |
| :---: | :---: |

Credits $\quad 15$
Semester Two

| EN-102 | College Writing II (WR) | 3 |
| :--- | :--- | ---: |
| EC-120 <br> or EC-110 | Introduction to <br> Macroeconomics (HBS) <br> or Introduction to <br> Microeconomics | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| LASC | LASC Elective (p. 46) | 3 |
| BA-2XX+ | 200+ Major Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Year Two

## Semester Three

| EC-202 <br> or MA-202 | Introduction to Mathematical <br> Economics <br> or Business Calculus | $3-4$ |
| :--- | :--- | ---: |
|  | Business Communications | 3 |
| EN-253 | Financial Accounting I | 3 |
| BA-210 | LASC Elective (USW) (p. 60) | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
| LASC | Credits | $\mathbf{1 5 - 1 6}$ |

## Semester Four

| BA-220 | Financial Accounting II | 3 |
| :--- | :--- | ---: |
| BA-250 | Analytical Techniques in <br> Business | 3 |
| BA-318 | Principles of Marketing | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 4 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
|  | Credits | $\mathbf{1 6}$ |

Year Three
Semester Five

| BA-305 | Organizational Behavior | 3 |
| :--- | :--- | ---: |
| BA-230 <br> or BA-374 | Managerial Accounting <br> or Cost Accounting | 3 |
| BA-316 | Financial Management | 3 |
| LASC | LASC Elective (NSP) (p. 58) | $3-4$ |
| SELECT | General Elective | 3 |
| Semester Six | Credits | $\mathbf{1 5 - 1 6}$ |
| BA-312 | Operations Management I | 3 |
| BA-350 | Business Information <br> Systems and Applications | 3 |
| BA-320or BA-480 Business Law I <br> or The Legal Environment <br> of Business | 3 |  |


| SELECT | BA Concentration Elective | 3 |
| :--- | :--- | ---: |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Year Four |  |  |
| Semester Seven |  |  |
| BA-490 | Business Strategy and Policy | 3 |
| SELECT | General Elective | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Semester Eight |  |  |
| SELECT | BA Concentration Elective | 3 |
| SELECT | BA Concentration Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
|  | Total Credits | $\mathbf{1 2 1 - 1 2 3}$ |

${ }^{1}$ One QR must be a MA course

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

## Business Administration Major, Concentration in Accounting

## Requirements for a Major in Business Administration, Concentration in Accounting

The Common Business Core together with four additional courses in the field of accounting chosen with the assistance of the advisor. Typical courses include:

| Code | Title | Credits <br> (15-16 |
| :--- | :--- | ---: |
| Ancillary Courses |  |  | credits)



Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Business Administration Major, Concentration in Entrepreneurial Studies and Small Business Management

Requirements for a Major in Business Administration, Concentration in Entrepreneurial Studies and Small Business Management
The common Business Core together with two required plus two additional courses in the field chosen with the assistance of the advisor from the list below:

| Code | Title | Credits |
| :---: | :---: | :---: |
| Ancillary Courses |  | $\begin{array}{r} (15-16 \\ \text { credits) } \end{array}$ |
| EC-110 | Introduction to Microeconomics | 3 |
| EC-120 | Introduction to Macroeconomics | 3 |
| EN-253 | Business Communications | 3 |
| $\begin{aligned} & \mathrm{MA}-150 \\ & \quad \text { or EC-150 } \end{aligned}$ | Statistics I <br> Statistics | 3 |
| MA-202 <br> or EC-202 | Business Calculus <br> Introduction to Mathematical Economics | 3-4 |

Common Business Core (36

| Lower Division |  |  |
| :--- | :--- | :--- |
| BA-200 | Principles of Management | 3 |
| BA-210 | Financial Accounting I | 3 |
| BA-220 | Financial Accounting II | 3 |
| BA-230 | Managerial Accounting | 3 |
| BA-250 | Analytical Techniques in | 3 |
|  | Business |  |


| Upper Division |  |  |
| :--- | :--- | :--- |
| BA-305 | Organizational Behavior | 3 |
| BA-312 | Operations Management I | 3 |
| BA-316 | Financial Management | 3 |
| BA-318 | Principles of Marketing | 3 |
| BA-350 | Business Information <br> Systems and Applications | 3 |
| BA-320 <br> or BA-480 | Business Law I |  |
|  | The Legal Environment of Business |  |


| BA-490 | Business Strategy and Policy | 3 |
| :---: | :---: | :---: |
| Entrepreneurial Studies and Small Business Management Requirements |  | $\begin{array}{r} (12 \\ \text { credits) } \end{array}$ |
| BA-302 | Introduction to Entrepreneurship | 3 |
| BA-402 | Designing the Business Plan | 3 |
| Select two of the following: |  | 6 |
| BA-303 | Small Business Management |  |
| BA-304 | Women Entrepreneurs and Leaders |  |
| BA-351 | Managing Ebusiness |  |
| BA-420 | Marketing Research |  |
| So-420 | Seminar in Sociology |  |
| Or any courses program chair/i | in the field as approved by BA structor/advisor. |  |
| Total Credits |  | 63-64 |
| Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog. |  |  |
| Major, Concentration in Finance |  |  |
| Requirements for Major in Business Administration, Concentration in Finance: |  |  |
| The common Business Core together with four additional courses in the field of Finance chosen with the assistance of the advisor from the list that follows: |  |  |
| Code | Title | Credits |
| Ancillary Courses |  | $\begin{array}{r} (15-16 \\ \text { credits) } \end{array}$ |
| EC-110 | Introduction to Microeconomics | 3 |
| EC-120 | Introduction to Macroeconomics | 3 |
| EN-253 | Business Communications | 3 |
|  |  |  |



| BA-490 | Business Strategy and Policy | 3 |
| :--- | ---: | ---: |
| International Business Electives | $(9$ <br> credits) |  |
| Select three of the following: | 9 |  |
| BA-351 | Managing Ebusiness |  |
| BA-481 | Independent Study in <br> Business Administration |  |
| BA-482 | Selected Topics in Business <br> Administration |  |
| BA-486 | Internship in Business |  |
| BA-494 | Administration |  |
| EC-301 | International Marketing |  |
| EC-307 | Economic Development |  |
| EC-308 | International Finance |  |
| Total Credits |  |  |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Business Administration Major, Concentration in Management <br> Requirements for a Major in Business Administration, Concentration in Management

The Common Business Core together with four elective courses in the field of management chosen with the assistance of the advisor from the list below:

| Code | Title | Credits |
| :---: | :---: | :---: |
| Ancillary Courses |  | (15-16 |
|  |  | credits) |
| EC-110 | Introduction to | 3 |
|  | Microeconomics |  |
| EC-120 | Introduction to | 3 |
|  | Macroeconomics |  |
| EN-253 | Business Communications | 3 |
| MA-150 | Statistics I | 3 |
| or EC-150 | Statistics |  |


| MA-202 | Business Calculus | 3-4 |
| :---: | :--- | :---: |
| or EC-202 | Introduction to Mathematical |  |
|  | Economics |  |

Common Business Core (36

|  |  | credits) |
| :--- | :--- | ---: |
| Lower Division |  |  |
| BA-200 | Principles of Management | 3 |
| BA-210 | Financial Accounting I | 3 |
| BA-220 | Financial Accounting II | 3 |
| BA-230 | Managerial Accounting | 3 |
| BA-250 | Analytical Techniques in | 3 |
|  | Business |  |


| Upper Division |  |  |
| :--- | :--- | ---: |
| BA-305 | Organizational Behavior | 3 |
| BA-312 | Operations Management I | 3 |
| BA-316 | Financial Management | 3 |
| BA-318 | Principles of Marketing | 3 |
| BA-350 | Business Information <br> Systems and Applications | 3 |
| BA-320or BA-480 Business Law I <br> The Legal Environment of Business  |  |  |
| BA-490 | Business Strategy and Policy | 3 |

Management Electives (12
Select four of the following: 12

| BA-300 | Organization Theory |
| :--- | :--- |
| BA-306 | Human Resource <br> Management |
| BA-327 | Ethical Decision Making in <br> Business |
| BA-380 | Negotiations |
| BA-385 | Leadership <br> Organizational Behavior I |
| BA-400 | Management and <br> Organizational Behavior II |
| BA-401 | Administrative Practices and <br> Management |
| BA-430 | Management and Corporate <br> Responsibility |
| BA-434 International Business and |  |
| BA-440 | Management <br> MA |
| BA-481 | Independent Study in <br> Business Administration |
| BA-482 | Selected Topics in Business <br> Administration |


| BA-486Internship in Business <br> Administration |
| :--- |
| Total Credits |
| Students are required to meet with their academic |
| advisor to review their courses for the upcoming |
| semester. A minimum of 120 credits is required |
| for graduation. First-year and transfer students |
| with 45 or fewer credits at the time of admission |
| shall complete two academic programs (a major/ |
| major or major/minor) to qualify for graduation. For |
| more information, please view the MajorPlus (p. 65) |
| section of this catalog. |

## Business Administration Major, Concentration in Marketing

## Requirements for a Major in Business Administration, Concentration in Marketing

The Common Business Core together with four additional courses in the field of marketing chosen with the assistance of the advisor from the list that follows:

| Code | Title | Credits |
| :---: | :---: | :---: |
| Ancillary Courses |  | $\begin{array}{r} (15-16 \\ \text { credits) } \end{array}$ |
| EC-110 | Introduction to Microeconomics | 3 |
| EC-120 | Introduction to Macroeconomics | 3 |
| EN-253 | Business Communications | 3 |
| MA-150 <br> or EC-150 | Statistics I <br> Statistics | 3 |
| MA-202 <br> or EC-202 | Business Calculus <br> Introduction to Mathematical Economics | 3-4 |
| Common Business | Core | $\begin{array}{r} (36 \\ \text { credits) } \end{array}$ |
| Lower Division |  |  |
| BA-200 | Principles of Management | 3 |
| BA-210 | Financial Accounting I | 3 |
| BA-220 | Financial Accounting II | 3 |
| BA-230 | Managerial Accounting | 3 |
| BA-250 | Analytical Techniques in Business | 3 |



Select four of the following: 12

| BA-406 | Trends in Marketing |
| :--- | :--- |
| BA-420 | Marketing Research |
| BA-422 | Retailing |
| BA-424 | Advertising Management |
| BA-426 | Consumer Behavior |
| BA-428 | Business to Business <br> Marketing |
| BA-429 | Integrated Marketing <br> Communications |
| BA-486 | Internship in Business <br> Administration |
| Total Credits | International Marketing |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

Sigma Beta Delta, an international honor society in business, is available to outstanding students.

## Business Administration Minor

## Requirements for a Minor in Business Administration

Students must complete the three prerequisite courses with a C (2.0) or better average.

## Requirements for a Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| EC-150 | Statistics (QR) | 3 |
| or MA-150 | Statistics I |  |
| EC-110 | Introduction to | 3 |
|  | Microeconomics (HBS) |  |
| or EC-120 | Introduction to Macroeconomics |  |
| BA-200 | Principles of Management | 3 |
| BA-210 | Financial Accounting I | 3 |
| BA-250 | Analytical Techniques in | 3 |
|  | Business |  |
| Select any four additional BA courses (students may choose one of the following EC courses): |  | 12 |
|  |  |  |
| EC-205 | Money, Banking, and Monetary Policy |  |
|  |  |  |  |
| EC-301 | Economic Development |  |
| EC-307 | International Finance |  |
| EC-308 | International Trade |  |
| Total Credits |  | 27 |

## Communication

## Department of Communication

The Department of Communication at Worcester State University promotes the critical understanding of communication in a culturally diverse world. The program provides a praxis-based model of learning well suited for the digital age: theoretical and conceptual knowledge based instruction along with hands-on synthesis and application to yield creative content. Specifically, the program engages students in the theory and practice of mass communication, social and digital media, advertising, public relations, and media production, among others. The department's goal is to educate students to assess the role of communication in society, and to be proficient communicators and engaged citizens. Representing diverse areas of expertise, the faculty emphasizes contemporary issues and media ethics from a local-to-global perspective.

Courses focused on media literacy, criticism, production and special topics, prepare students for professional careers and for further study at the graduate level. Facilities include a television studio, editing suites, multimedia labs, video / photographic equipment and photographic dark rooms. In addition to course work, students in their junior and senior year are encouraged to apply for media internships and independent studies in their field of interest.

- Communication Education Minor (p. 344)
- Communication Major (p. 344)
- Communication Major, Concentration in Advertising and Public Relations (p. 346)
- Communication Major, Concentration in Digital Media Production (p. 347)
- Communication Minor (p. 349)
- Master's of Science in Communication (MSC) Program (p. 349)


## Faculty

David Angell, Visiting Assistant Professor (2023), B.A., Rhode Island College; M.F.A., Vermont College of Fine Arts

Carlos Fontes, Professor (1996), B.A., Escola Superior de Meios de Communicacao Social, Lisbon; M.A., Ph.D., University of Massachusetts

Julie D. Frechette, Professor (1999), B.A., University of New Hampshire; M.A., Ph.D., University of Massachusetts

Suzanne Gainer, Professor (2001), B.A., St. Vincent College; M.F.A., Rhode Island School of Design

Daniel S. Hunt, Department Chair, Associate Professor (2013), B.A., University of Rhode Island; M.S., Boston University College of Communication; Ph.D., University of Connecticut

Emanuel E. Nneji, Professor (2005), B.A., University of Nigeria; M.S., University of Lagos; Ph.D., University of South Carolina

Brittany E. Severance, Assistant Professor (2021), B.A., University of Massachusetts; M.A., M.F.A., Emerson College

Eric Nichols, Assistant Professor (2019), B.A., Worcester State University; M.F.A. Maine College of Art

## Courses

CM-100 Intro to Mass Communication
LASC Categories: TLC, HBS
An integrated examination of the history, theory, structure, process, and effects of each of the mass media.
Fall and Spring and every year. 3 Credits

## CM-101 Library Skills for Research

The course covers the basics of library research: search strategies and how to use both print and automated research tools.
Other or on demand. 1 Credit
CM-103 Survey of Radio and Television
LASC Categories: HBS, TLC
Perspectives on the development of radio and television technologies, programming, regulation, and economic support, and their impact.
Fall and Spring and every year. 3 Credits
CM-105 Media Writing
Prerequisites: CM-100
An introduction to various types of mass media writing, from print and broadcast to public relations, advertising, and online media.
Every year. 3 Credits

## CM-106 Communications and the Internet LASC Categories: TLC

Focuses on the social and educational implications of the Internet and the application of its various search tools as a means of communication. Spring only and other or on demand. 3 Credits

## CM-107 Journalism and Democracy

This course introduces students to the history of American journalism and the role of journalism in democratic and non-democratic societies. 3 Credits

## CM-108 Introduction to Animation

This hands-on introductory-level course covers the fundamentals of aesthetics of computer animation. Through a series of shorts projects, students will learn the principles of expression through movement in time, sequential composition, editing and integration of images sequences and sound. 3 Credits

## CM-110 Public Speaking

LASC Categories: TLC
Essentials of speech production and speech writing for large and small groups. Classroom practice in delivering various types of speeches. [formerly ME 110 Speech)
Fall and Spring and every year. 3 Credits

## CM-150 Photography I

LASC Categories: CA
Covers the basic theory and practice of thirty-five millimeter black and white photography, including camera handling, film processing, light meters, printing and picture content.
Fall and Spring and every year. 3 Credits

## CM-151 Introduction to Digital Photography LASC Categories: CA

Techniques and aesthetics of digital photography. Introduction to the operation of SLR digital cameras and the computer as digital darkroom.
Every year. 3 Credits

## CM-160 Introduction to Digital Imaging

LASC Categories: CA
This course introduces students to the procedures, techniques and concepts of basic digital imaging. In the course students learn to use the computer as a tool for visual image making.
Fall and Spring and every year. 3 Credits

## CM-180 Introduction to Advertising <br> LASC Categories: HBS

An overview of the advertising including the historical and current roles of advertising in our economy, basic advertising concepts and methods, and social and cultural effects.
3 Credits
CM-191 Special Topics in Communication
An introductory level course in communication on current or specialized topics.
3 Credits
CM-193 Special Topics in Communication for First Year Students
LASC Categories: FYS
Introductory level course covering topics of special interest to first-year students. offered only as a FirstYear Seminar.
Every year. 3 Credits
CM-199 Interpersonal Communication in Media
Study of the communications process as it relates to the production of material in various media, including video, audio, film.
Every year. 3 Credits
CM-200 Writing for Communication
LASC Categories: WAC
Prerequisites: EN-102
Development of writing, research, and critical
thinking skills associated with the discipline of communication. Assignments focus on contemporary communication issues.
Every year. 3 Credits

## CM-204 Analysis of News

This course introduces students to the conventions, ethical issues and the economics, political and sociocultural forces that affect mainstream and alternative journalism today.
Every 2-3 years. 3 Credits

## CM-205 Reporting for Media

This course refines interviewing skills and enables students to develop evidence from documentary sources to create stories for converging media.
Fall and Spring and every 2-3 years. 3 Credits

## CM-206 Digital Storytelling

## Prerequisites: CM-100

Use of personal narrative to construct stories using audio, still and video images, and music tracks in digital format.
Every year. 3 Credits

## CM-210 Special Topics in Communication

This is a mid-level communication course focused on current specialized topics not covered by the department's curriculum.
3 Credits
CM-213 Gender and the Media
LASC Categories: HBS, TLC, DAC, WAC, DIV
Prerequisites: CM-100 and EN-102
This course will explore how difference is socially constructed along gender lines and will explore the intersections of gender, identity, power and media representation.
Fall and Spring and every 2-3 years. 3 Credits

## CM-231 Photography II

Prerequisites: CM-150 or CM-151
Expands basic skills in camera craft, film and print processing and presentation. Instruction and practice in the zone system, theory and practice of advanced exposure and film development control. Emphasis on photographic composition and efficiency in designing purposeful photographic statements.
Fall and Spring and every year. 3 Credits

## CM-240 Principles of Public Relations Practices <br> LASC Categories: HBS

Prerequisites: CM-100
An overview of public relations principles in business, politics, and society.

## 3 Credits

## CM-241 Understanding Movies

LASC Categories: CA, TLC
An introduction to the aesthetics and critical theories
of film as an artistic medium of communication through critical observation of classic and contemporary movies.
Other or on demand. 3 Credits

## CM-242 Understanding Video Games <br> LASC Categories: CA, TLC

An introduction to the interdisciplinary study of video games as texts through an examination of their cultural, educational, and social functions in contemporary settings.
Every year. 3 Credits

## CM-244 Graphic Design I

LASC Categories: CA
Through hands on projects, students will learn formal elements of design, principles of typography, idea generation, and issues of responsible design as applied to print media.
Fall and Spring and every year. 3 Credits

## CM-259 Television Production

LASC Categories: CA
Basics of studio production including visualization and sequencing of short scripts, sound, graphics, lighting, and technical direction.
Every 2-3 years. 3 Credits

## CM-260 Introduction to Video

LASC Categories: CA
A beginning course in video program production, using lightweight and portable equipment.
Fall and Spring and every year. 3 Credits

## CM-285 History of Photography

LASC Categories: CA, TLC
The history of photography from 1839 to present, with attention to styles, aesthetics, technical processes, and leading practitioners. [Cross-listed with AR-285.]
Every 2-3 years. 3 Credits

## CM-301 Communication Theory

## Prerequisites: CM-100

Examines the nature and origins of symbol systems, the make up of audiences, the effects of mass media, and concomitant research.
Other or on demand. 3 Credits

## CM-315 Social Media

LASC Categories: CA, TLC
Prerequisites: CM-100
This course explores the historical and societal influences on the development of social media through conceptual and practical applications. 3 Credits

## CM-325 Community Media Production

Prerequisites: CM-259
This course focuses on the practice of creating media for the purpose of community engagement.
Students will gain experience in television studio production, video editing, and audio recording by exploring topics and issues relevant to the people of Worcester. Program development, interviewing skills, and production techniques will be covered. Students will also work on using social media promotion for content dissemination.
Every year. 3 Credits

## CM-340 Public Relations Strategy

Prerequisites: CM-240
Case study approach to public relations practices, problems, opportunities, and application to practical situations.
Every 2-3 years. 3 Credits

## CM-344 Graphic Design II

Prerequisites: CM-244
The course builds upon the foundations of design covered in Graphic Design I, with emphasis on critical thinking, visual problem solving and the use of text and image.
Every year. 3 Credits
CM-350 Intercultural Communication
Prerequisites: CM-100
Introductory communication theory and practice across cultural groups defined by race, ethnicity, gender, religion, age, nationality, politics and economics.
3 Credits

## CM-359 Documentary Production

Prerequisites: CM-260
This course engages students in a semester-long production of documentary and introduces key concepts of documentary theory.
Every 2-3 years. 3 Credits

## CM-360 Television Production II

LASC Categories: CA
Prerequisites: CM-259 or CM-260
The student will gain experience in the areas of electronic videotape editing, technology of television engineering, creative video, remote production, and other advanced techniques. Primary emphasis is on the production of programs utilizing advanced techniques.
Every year. 3 Credits

## CM-363 Visual Media Literacy

Prerequisites: CM-100
An introduction to principles of visual media literacy and their application in media production and perception.
3 Credits

## CM-366 Scriptwriting

Prerequisites: CM-100
Creating scripted material for the electronic media.
All types, styles, and formats will be covered.
Every 2-3 years. 3 Credits
CM-370 Advertising Production
Prerequisites: CM-100 and CM-180
Applied skills in advertising including the creation of advertisements in different media, advertising strategies, media schedules and campaign plans. Other or on demand. 3 Credits

## CM-384 Media Criticism

LASC Categories: HBS, TLC, DAC, WAC, DIV
Prerequisites: CM-100 and EN-102
Evaluation and analysis of film, television, theatre, and radio performances, development of intelligent, ethical standards of judgment.
Fall and Spring and every year. 3 Credits
CM-390 Independent Media and Society
LASC Categories: TLC, DAC
Prerequisites: CM-100
This course introduces students to the theory and practice of wide range of media economically and politically independent of both corporation and the state. The course focuses on the relationship between independent media and corporate media as well as the role of independent media within social movements, cultures of resistance, and processes of social change.
Other or on demand and other or on demand. 3
Credits
CM-396 Video Editing
LASC Categories: CA
Prerequisites: CM-259 or CM-260
The principles and procedures of editing video using computer-based, non-linear editing techniques and equipment. Students will produce short edited programs.
Fall and Spring and other or on demand. 3 Credits
CM-400 Advertising and Public Relations Research
LASC Categories: HBS
Prerequisites: CM-100, CM-180 and CM-240.
The course concentrates on the uses and applications of research in advertising and public relations situations.
Every 2-3 years. 3 Credits

## CM-404 Independent Study: Media <br> Prerequisites: CM-100

Permits advanced students to investigate topic of special interest through research or production of a project. Periodic consultations with advisor.
Fall and Spring and every year. 1-6 Credits
CM-405 Mass Communication Research
LASC Categories: HBS, WAC
Prerequisites: EN-102.
Survey of methods and applications of research in media fields, including advertising, public relations, journalism, new media and political communication. Every year. 3 Credits

## CM-408 Directed Study: Communication

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
1-3 Credits
CM-410 Seminar. Topics in Communication
This course engages students in advanced examination of emerging communication topics and of topics in a faculty's area of expertise. Spring only and other or on demand. 3 Credits

## CM-416 Media Law and Ethics

LASC Categories: ICW, HBS
Prerequisites: CM-100 or JO-101.
An overview of the US legal and justice systems and an examination of ethical issues in mass media.
[Cross-listed with EN-416.]
Alternating and every 2-3 years. 3 Credits
CM-435 Communication Internship
Prerequisite: Two relevant communication courses and consent of department provides opportunity for advanced students to increase experience through internship with sponsoring community organization, institution, or business under appropriate supervision.
Fall and Spring and every year. 3-12 Credits
CM-450 Senior Communication Capstone
LASC Categories: CAP
Prerequisites: CM-100, CM-110 CM-363, CM-384 and either CM-105 or CM-200.
Course allows students to reflect upon and document culminating experiences while nearing the end of their major coursework.
Every year. 3 Credits

## Program Learning Outcomes

- Teach students a broad range of concepts and skill sets which entail gathering, processing, editing, presenting and evaluating information.
- Teach students to effectively gauge the effects of communication and mass media.
- Educate students about mass media and its role in local, national, and global society.
- Vest students with the intellectual tools necessary to be informed and critical consumers of mass media.
- Teach and encourage responsible/ethical media production.
- Prepare students for careers in the industries of communication and mass media.
- Contribute to the body of knowledge about mass media, society, and where the two intersect.
- Disseminate the aforementioned knowledge to the Commonwealth of Massachusetts and beyond.


## Communication Education Minor

## Requirements for a Minor in Communication Education

| Code | Title | Credits |
| :--- | :--- | ---: |
| CM-100 | Intro to Mass | 3 |
|  | Communication |  |
| CM-110 | Public Speaking | 3 |
| CM-350 | Intercultural Communication | 3 |
| CM-384 | Media Criticism | 3 |
| or CM-363 | Visual Media Literacy |  |
| Select any 2 electives in Communication | 6 |  |
| Total Credits | $\mathbf{1 8}$ |  |

## Communication Major

 Requirements for a Major in Communication39 credits for the Advertising and Public
Relations concentration and 39 credits for the concentration in Digital Media Production.

| Code | Title | Credits <br> Core Courses |
| :--- | :--- | ---: |
| (21 |  |  |
| CM-100 |  | Intro to Mass <br> credits) |
| CM-105 | Media Writing | 3 |
| or CM-200 | Writing for Communication | 3 |
| CM-110 | Public Speaking | 3 |
| CM-363 | Visual Media Literacy | 3 |
| CM-384 | Media Criticism | 3 |
| CM-450 | Senior Communication | 3 |

Select one of the following: 3
CM-213 Gender and the Media

| CM-350 | Intercultural Communication |  |
| :---: | :--- | ---: |
| CM-390 | Independent Media and <br> Society |  |
| Elective Courses |  |  |
| Select 18 credits in Communication | $\mathbf{( 1 8}$ |  |
| credits) |  |  |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Sample Timetable for Completion of Degree Communication, Generalist

| Year One |  |  |
| :---: | :---: | :---: |
| Semester One |  | Credits |
| LASC | First-Year Seminar (FYS) (p. 50) | 3 |
| EN-101 | College Writing I | 3 |
| CM-100 | Intro to Mass Communication | 3 |
| LASC | LASC Elective (QR) (p. 59) | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
|  | Credits | 15 |
| Semester Two |  |  |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| CM-110 | Public Speaking | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
|  | Credits | 15 |


| Year Two |  |  |
| :--- | :--- | ---: |
| Semester Three |  | 3 |
| CM-105 | Media Writing | 3 |
| SELECT | CM Major Elective | 4 |
| LASC | LASC Elective (NSP) (p. 58) | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
|  | Credits | $\mathbf{1 6}$ |

## Semester Four

| SELECT | CM Major Elective | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective (NSP) (p. 58) | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
|  | Credits | $\mathbf{1 5}$ |

Year Three
Semester Five

| CM-363 | Visual Media Literacy | 3 |
| :--- | :--- | ---: |
| SELECT | CM Major Elective | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

Semester Six

| CM-384 | Media Criticism | 3 |
| :--- | :--- | ---: |
| SELECT | CM Major Elective | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

Year Four

## Semester Seven

| CM-435 | Communication Internship | 3 |
| :--- | :--- | ---: |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Semester Eight |  |  |
| CM-450 | Senior Communication | 3 |
|  | Capstone |  |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
|  | Total Credits | $\mathbf{1 2 1}$ |

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

## Communication Major, Concentration in Advertising and Public Relations

Requirements for the Concentration in Advertising and Public Relations

| Code | Title | Credits |
| :---: | :---: | :---: |
| Core Courses |  | (21 |
|  |  | credits) |
| CM-100 | Intro to Mass | 3 |
|  | Communication |  |
| CM-105 or CM-200 | Media Writing | 3 |
|  | Writing for Communication |  |
| CM-110 | Public Speaking | 3 |
| CM-363 | Visual Media Literacy | 3 |
| CM-384 | Media Criticism | 3 |
| CM-450 | Senior Communication | 3 |
|  | Capstone |  |
| Select one of the following: |  | 3 |
| CM-213 | Gender and the Media |  |
| CM-350 | Intercultural Communication |  |
| CM-390 | Independent Media and Society |  |

Required Courses for Concentration (18
In addition to the six core courses, students will
have to complete the following:

| CM-180 | Introduction to Advertising | 3 |
| :--- | :--- | ---: |
| CM-240 | Principles of Public <br> Relations Practices | 3 |
| CM-340 | Public Relations Strategy <br> or CM-370 | Advertising Production |
| CM-400 | Advertising and Public <br> Relations Research | 3 |
| or CM-405 | Mass Communication Research |  |

Select 6 credits of Elective Courses in 6
Communication
Total Credits 39

Sample Timetable for Completion of Degree Communication/ Concentration in Advertising and Public Relations

Year One

| Semester One |  | Credits |
| :---: | :---: | :---: |
| LASC | First-Year Seminar (FYS) (p. 50) | 3 |
| EN-101 | College Writing I | 3 |
| CM-100 | Intro to Mass Communication | 3 |
| CM-110 | Public Speaking | 3 |
| LASC | LASC Elective (QR) (p. 59) | 3 |
|  | Credits | 15 |
| Semester Two |  |  |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| CM-105 or CM-200 | Media Writing or Writing for Communication | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | Credits | 15 |

## Year Two

Semester Three

| CM-180 | Introduction to Advertising ${ }^{1}$ | 3 |
| :--- | :--- | ---: |
| CM-240 | Principles of Public | 3 |
|  | Relations Practices ${ }^{1}$ |  |
| LASC | LASC Elective (NSP) (p. 58) | 4 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
|  | Credits | $\mathbf{1 6}$ |

## Semester Four

| Select one of the following: | 3 |  |
| :--- | :--- | ---: |
| CM-213 | Gender and the Media |  |
| CM-350 | Intercultural Communication |  |
| CM-390 | Independent Media and |  |
|  | Society | 3 |
| SELECT | CM Major Elective | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| LASC | LASC Elective (HBS) (p. 53) | $\mathbf{1 5}$ |
|  | Credits |  |

## Year Three

## Semester Five

CM-363 Visual Media Literacy 3

| CM-384 | Media Criticism | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective (GP) (p. 51) | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Semester Six | Public Relations Strategy ${ }^{2}$ | 3 |
| CM-340 | Advertising Production ${ }^{2}$ | 3 |
| CM-370 | LASC Elective (ICW) (p. 55) | 3 |
| LASC | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | Credits | $\mathbf{1 5}$ |


| Year Four |  |  |
| :--- | :--- | ---: |
| Semester Seven |  |  |
| CM-363 | Visual Media Literacy | 3 |
| CM-384 | Media Criticism | 3 |
| CM-400 | Advertising and Public | 3 |
|  | Relations Research |  |


| Semester Eight |  |  |
| :--- | :--- | ---: |
| CM-400 <br> or CM-405 | Advertising and Public <br> Relations Research |  |
|  | or Mass Communication <br> Research | 3 |
| SELECT | CM Journalism Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
|  | Total Credits | $\mathbf{1 2 1}$ |

${ }^{1}$ Taught each Fall semester
${ }^{2}$ Taught each Spring Semester
${ }^{3}$ Taught every third semester

Once LASC requirements are satisfied, students may select general requirements.

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/
major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Communication Major, Concentration in Digital Media Production Requirements for the Concentration in Media Production

| Code | Title | Credits <br> Core Courses |
| :--- | :--- | ---: |
| CM-100 |  | (21 <br> credits) |
|  | Intro to Mass <br> Communication | 3 |
| CM-105 | Media Writing | 3 |
| or CM-200 | Writing for Communication |  |
| CM-110 | Public Speaking | 3 |
| CM-363 | Visual Media Literacy | 3 |
| CM-384 | Media Criticism | 3 |
| CM-450 | Senior Communication | 3 |
|  | Capstone |  |

Take one course from the following: 3

| CM-213 | Gender and the Media |
| :--- | :--- |
| CM-350 | Intercultural Communication |
| CM-390 | Independent Media and |
|  | Society |

Conceptual (6
credits)
Take two courses from the following: 6

| CM-103 | Survey of Radio and <br> Television |
| :---: | :--- |
| CM-106 | Communications and the <br> Internet |
| CM-150 | Photography I |
| CM-210 | Special Topics in <br> Communication (as <br> approved) |
| CM-241 | Understanding Movies |
| CM-242 | Understanding Video Games |
| CM-250 | or MU-250 | | Music of the Cinema:Spectacle, |
| :--- |
| Splendor, And Spielberg |
| CM-285 |
| or AR-285 | | History of Photography |
| :--- |
| History of Photography |

Experiential
(9
credits)


## Sample Timetable for Completion of Degree Communication/ Concentration Digital Media Production

| Year One |  | Credits |
| :--- | :--- | ---: |
| Semester One |  |  |
| LASC | First-Year Seminar (FYS) <br> $($ p. 50) | 3 |
| EN-101 | College Writing I | 3 |
| CM-100 | Intro to Mass |  |
| Communication | 3 |  |
| CM-110 | Public Speaking |  |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | Credits | $\mathbf{1 5}$ |

9 Semester Two

| EN-102 | College Writing II | 3 |
| :--- | :--- | ---: |
| CM-105 | Media Writing | 3 |
| CM-241 | Understanding Movies | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| LASC | LASC Elective (QR) (p. 59) | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Year Two |  |  |
| Semester Three |  |  |


| CM-150 <br> or CM-103 | Photography I <br> or Survey of Radio and <br> Television |  |
| :--- | :--- | ---: |
| CM-213 | Gender and the Media <br> or CM- Independent Media <br> and Society | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
|  | Credits | $\mathbf{1 6}$ |


| Semester Four <br> CM-259 <br> or CM-260 | Television Production <br> or Introduction to Video | 3 |
| :--- | :--- | ---: |
| CM-315 | Social Media | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 3 |
|  | Credits | $\mathbf{1 5}$ |

Year Three
Semester Five

| CM-151 | Introduction to Digital <br> Photography | 3 |
| :--- | :--- | ---: |
| CM-244 | Graphic Design | 3 |
| CM-363 | Visual Media Literacy | 3 |
| SELECT | CM Major Elective | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
|  | Credits | $\mathbf{1 5}$ |

Semester Six

| CM-206 <br> or CM-231 | Digital Storytelling <br> or Photography II | 3 |
| :--- | :--- | ---: |
| CM-359 | Documentary Production <br> or CM-360 <br> or Television Production <br> II | 3 |
|  | Media Criticism | 3 |
| CM-384 | Communication Internship | $3-12$ |
| CM-435 | General Elective | 3 |
| SELECT | Credits | $\mathbf{1 5 - 2 4}$ |

## Year Four

Semester Seven

| Semester Seven | Senior Communication | 3 |
| :--- | :--- | ---: |
|  | Capstone |  |
|  | Video Editing | 3 |
| CM-396 | CM Elective or Internship | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | Credits | 15 |
|  |  | 3 |
| Semester Eight | Intercultural Communication | 3 |
| CM-350 | Independent Study: Media | $1-6$ |
| CM-404 | CM Elective | 3 |
| SELECT | CM Elective or Internship | 3 |
| SELECT | General Elective | 3 |
| SELECT | Credits | $13-18$ |
|  | Total Credits | $119-133$ |

Once LASC requirements are satisfied, students may select general requirements. Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.
${ }^{1}$ Recommended Electives

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Communication Minor

Requirements for a Minor in Communication

| Code | Title | Credits |
| :--- | :--- | ---: |
| CM-100 | Intro to Mass | 3 |
|  | Communication |  |
| CM-110 | Public Speaking | 3 |
| Select 4 electives in Communication | 12 |  |
| Total Credits | $\mathbf{1 8}$ |  |

## Master's of Science in <br> Communication (MSC) Program

## Worcester State University/Clark University School of Professional Studies MSC Degree Program

Through a cooperative program between Worcester State University and Clark University, qualified
Communication majors and minors during their senior year can work towards a Master of Science in Communication (MSC), while concurrently completing their baccalaureate degree.

## Criminal Justice

## Department of Criminal Justice

This major offers students a greater awareness of social services, judicial practice and court proceedings, law enforcement, corrections, fraud examination, public policy, emergency management, security, loss prevention, compliance, law, intelligence, juvenile justice, forensics, victim services, and other helping fields.

Criminal Justice courses allow students to explore critical thinking in an experiential environment by participating in mock investigations and trials and by participating in internships with corrections facilities, district courts, state or federal government agencies, and a vast array of social services organizations. Students are eligible to apply for internships in a criminal justice related organization during their junior year.

Baccalaureate degree holders will be prepared to seek employment positions in local, state, and federal organizations and private companies, or they may continue their education to complete a master's degree in Criminal Justice or a law degree.

A minor in Criminal Justice or Forensic Science, when paired with a major from a program from the School of Humanities and Social Sciences, will significantly broaden students' prospective career paths, equipping them with in-demand marketable skills.

## Faculty

Criminal Justice faculty members are multi-faceted and active in the discipline. As Criminal Justice is an Interdisciplinary program, faculty specialties include Public Policy, Law, Public Administration, Sociology, Criminology, and Criminal Justice. Faculty are highly engaged in research and routinely involve students. Faculty are members of the American Society of Criminology, Academy of Criminal Justice Sciences, and regional associations related to Criminal Justice, Sociology, Juvenile Justice, Corrections and Law.

## Requirements

Students must maintain a minimum overall GPA of 2.0 in the major, consistent with Worcester State University policy.

## Evening and Summer Criminal Justice Courses

Core courses, though not offered in an online format, are available as evening courses. Elective courses are offered in the evening and online during the regular academic calendar as well as during the summer sessions. Many courses are available in online and blended formats (in-class and online blend).

Alpha Phi Sigma National Criminal Justice Honor Society

Students who challenge themselves to lead by example in all aspects of their academic environment become excellent candidates for induction into the Alpha Phi Sigma National Criminal Justice Honor Society. Membership in the Honor Society highlights outstanding students who exhibit self-motivation and exceed expectations. Prospective students with a GPA of 3.3 or higher can benefit from membership; it is highly recommended for adding to the resume.

## Criminal Justice Club

Students are encouraged to join the CJ Club, a student-run club assisted by a Faculty Adviser. The Club serves as a conduit for students to network with peers, meet with guest speakers, attend the annual Career Fair, and take part in field trips and special events designed to broaden career choices and offer opportunities unique to each students' particular path.

- Criminal Justice Major (p. 357)
- Criminal Justice Minor (p. 358)
- Homeland Security Minor (p. 359)


## Faculty

Mark H. Beaudry, Assistant Professor (2018), A.S., Mount Wachusett Community College; M.S., B.S., Northeastern University; Ph.D., Capella University

Aimée Delaney, Associate Professor (2013), B.A., M.A., C.A.G.S., (Domestic Violence) University of Massachusetts, Lowell; Ph.D., University of New Hampshire

Hyesun Kim, Department Chair, Professor (2010), B.A., Dongguk University, South Korea; M.A., Ewha Women's University, South Korea; M.A., John Jay College of Criminal Justice; Ph.D., Indiana University of Pennsylvania

Penny Martin, Associate Professor (2003), B.S., Weber State College, Utah; M.A., Humboldt State University; Ph.D., University of Miami

Stephen A. Morreale, Professor (2007), B.S., University of Massachusetts, Boston; M.P.A., Golden Gate University; D.P.A., Nova Southeastern University

Francis G. Olive III, Associate Professor (2016), B.S., Our Lady of the Elms College; M.C.S.W., Fordham University; Ph.D., University of New Haven

John R. Tahiliani, Professor (2008), B.A., King's College; M.A., Ph.D., Washington State University

## Courses

## CJ-101 Introduction to Criminal Justice LASC Categories: GP, HBS, ICW

This course provides a general introduction to the criminal justice system, including the historical development, fundamental principles, and legal framework of the criminal justice system in the United States and around the world. It examines the various components of the criminal justice system, including law enforcement, courts, and corrections, assessing their effectiveness in promoting public safety and ensuring justice. The course also explores various theoretical perspectives on criminal behavior and ethical considerations for criminal justice professionals.
Fall and Spring and every year. 3 Credits

## CJ-102 Introduction to Corrections

Prerequisites: CJ-101
Corrections is described as a study of the historical and contemporary views that examine the punishment of crime, offender management, and rehabilitation. This course focuses on correctional philosophy, theory, and practices. It further explores sentencing, jails, prisons, probation, parole, correctional policies, agencies, prison life, treatment, challenges facing correctional populations, and reentry.
Fall and Spring and every year. 3 Credits

## CJ-103 Evidence Collection and Crime Scene Preservation

Prerequisites: CJ-101. Forensic Science minors must take BT-101 as the prerequisite for this course. This course provides students with a theoretical framework for the practice of evidence collection and crime scene preservation. Various techniques and protocols for investigation will be reviewed and linked to methods of collection of physical evidence, as well as the interpretation, accountability and preservation of data. Techniques of documentation and case preparation will also be explored.
Every 2-3 years. 3 Credits

## CJ-111 Law Enforcement and Society <br> Prerequisites: CJ-101

The structure and function of law enforcement agencies in contemporary society will be analyzed in their sociological context. Particular emphasis will be placed on the role of the police within the framework of the Criminal Justice System.
Fall and Spring and every year. 3 Credits

## CJ-193 Special Topics for First-Year Students LASC Categories: FYS

Introductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
Every year. 3 Credits

## CJ-203 Theories of Crime <br> Prerequisites: CJ-101

This course explores the prominent theories of crime causation, including biological, psychological, sociological, and cultural explanations. In this course, students also learn the implications of these theories for policy making within the criminal justice system. Fall and Spring and every year. 3 Credits

CJ-204 Introduction to Research in Criminal Jus Prerequisites: CJ-203
This course provides an overview of research concepts, designs, and applications within the content areas of criminal justice. Reasoning, concept construction, theoretical frameworks, ethical principles, and professional writing conventions are examined.
Fall and Spring and every year. 3 Credits

## CJ-205 American Judicial System

Prerequisites: CJ-101
An examination of the development of law and the American legal system. The problems related to the meaning and uses of law: the organizational hierarchy of the courts: and the role of the courts in the criminal justice systems.
Fall and Spring and every year. 3 Credits

## CJ-208 Systems of Addictions Treatment

Prerequisites: HE-285 or CJ-285
This course provides an overview of counseling modalities and techniques used in addiction treatment and recovery settings, including for those with co-occurring disorders. A family systems approach will be employed to understand how the Criminal Justice System, the Mental Health System, and the larger community relate. Legal and regulatory restrictions, ethical codes, and legal sanctions also are discussed.
Fall and Spring and every year. 3 Credits

## CJ-211 Victimology

Prerequisites: $\mathrm{CJ}-101$
Criminal-victim relationships, with emphasis on victim-precipitated crimes and compensation to the victims.
Every 2-3 years. 3 Credits

## CJ-212 Homeland Security

The course is designed to introduce students to the established Department of Homeland Security. The course will examine issues such as interdepartmental workings, legal restrictions placed on the DHS mandates, how the DHS interacts with both domestic and international agencies, and how effective has the DHS been since its inception.
Alternating and every year. 3 Credits

## CJ-215 Art Crimes

LASC Categories: TLC, HBS
This course explores a variety of criminal offenses involving the production, consumption, distribution, and display of art, including graffiti/street art, forgery, theft, vandalism, rights infringement, and indecent and politically subversive art. The course examines these offenses from an interdisciplinary perspective, including law, criminology, aesthetics, economics, and cultural studies. Art crimes are examined from the international level to the locaL. (This course does not count as a Criminal Justice elective for Criminal Justice majors.) Every 2-3 years. 3 Credits

## CJ-216 Cybercrime

Prerequisites: CJ-101 and CJ-111
Cybercrime has grown in visibility and importance during the last two decades. There is growing public interest in cybercrime and identity theft and its consequences for businesses and individuals, only scant attention has been given to investigation and understanding of this crime. The focus of this course is to introduce students to the technical, social and legal aspects of cybercrime while exposing students to theories, tools and approaches to preventing and investigation of Cybercrime.
Every 2-3 years. 3 Credits

## CJ-217 Criminal Justice and Cultural Studies Abroad LASC Categories: DAC

This course is designed to provide students with an opportunity to explore culture, crime, and criminal justice systems overseas by attending international programs held in foreign countries. This course includes a study of criminal justice practices and systems through field studies, lectures, seminars, workshops, and the like. Further, students are exposed to diverse cultural experiences and events throughout the program.
Every 2-3 years. 3-6 Credits

## CJ-218 Emergency Management

This course covers topics such as risk identification and assessment of natural hazards such as an environmental event or a human-made hazards such as violence in the workplace. The course also covers the development of crisis and disaster incident management programs. Students are required to take the assigned Federal Emergency Management Agency online course and a certificate is optional. Alternating and every 2-3 years. 3 Credits

## CJ-230 Leading Criminal Justice Organizations

Prerequisites: CJ-101 and CJ-102 and CJ-111
An examination of organizational and leadership theory and its applications within criminal justice organizations. Consideration of the principles of organization and methods adopted by progressive agencies to effectuate change and ensure effective criminal justice service to the community.
Every 2-3 years. 3 Credits

## CJ-250 Quantifying Crime <br> LASC Categories: QAC

Prerequisites: Score of 3 or higher on math Accuplacer or passing grade in college level math class.
Students are provided with an overview of statistics used in criminal justice and criminology. The course covers topics including constructing testable research questions in the study of crime, organizing data, applying appropriate statistical tests, and interpreting results. This course also teaches students how to evaluate government data, technical reports, and empirical studies which summarize criminal justice data. Specific topics may include measuring crime, calculating crime hot spots, and crime mapping.
Every 2-3 years. 3 Credits

## CJ-285 Drugs and Society

This course examines the history of alcohol and other mood changing drugs in the U.S, the myths and stereotypes of alcohol and drug use, sociocultural factors that contribute to the use of drugs, and the patterns and progression of substance use disorders. Every 2-3 years. 3 Credits

## CJ-301 Juvenile Procedure

Prerequisites: CJ-101, CJ-201/CJ-111, CJ-202/ CJ-102, CJ-205.
An examination of the underlying philosophy of juvenile justice and procedures used to process a juvenile alleged to be delinquent through the juvenile justice system. The course will focus on the differences between juvenile procedure and adult criminal procedure by examining recent court decisions and statutory law pertaining to juveniles. Every 2-3 years. 3 Credits

## CJ-302 Criminal Law

Prerequisites: CJ-101 and CJ 205
The function of criminal law and its relationship to various criminal offenses, including crimes against persons and crimes against property. Fall and Spring and every year. 3 Credits

## CJ-305 Principles of Evidence and Proof

 Prerequisites: CJ-101 and CJ-205. This course analyzes federal and state rules of evidence in criminal proceedings, focusing on the relationship between evidence and proof. The course also examines issues related to the collection and seizure of admissible physical evidence, the role of privileges, and the interrogation of the accused. Spring only and every 2-3 years. 3 Credits
## CJ-306 Contemporary Issues in Corrections <br> Prerequisites: CJ-101, CJ-201/CJ-111, CJ-202/

CJ-102, CJ-205.
This course is designed to examine contemporary issues in the field of corrections. The focus of this course will include jails, prisons and community corrections and will examine current issues in: correctional administration, inmate management, mental health, rehabilitation programs, and reentry and reintegration.
Every 2-3 years. 3 Credits
CJ-307 Contemporary Issues in Law Enforcement
Prerequisites: CJ-101, CJ-201/CJ-111, CJ-202/
CJ-102, CJ-205.
An intensive analysis of selected problems in American law enforcement and police-community relations. A major research paper is required. Every 2-3 years. 3 Credits

## CJ-310 Organized and White Collar Crime

Prerequisites: CJ-101, CJ-201/CJ-111, CJ-202/
CJ-102, CJ-205.
The methods through which organized crime influences and, in many instances, controls entire communities. Traditional types of crime heavily influenced by organized crime, such as loan sharking and gambling, will be analyzed in an effort to demonstrate the basis of power and wealth of organized crime in the United States.
Every 2-3 years. 3 Credits

## CJ-320 Criminal Procedure

Prerequisites: CJ 205, or its equivalent or permission of the instructor
A study of the basic constitutional rights associated with the investigation, prosecution, and trial of criminal cases, and how the U.S. Supreme Court and other appellate courts have interpreted those rights. The course focuses on law enforcement practices including arrests, lineups, interrogations, searches and seizures, and in court processes including pretrial proceedings, trial, and sentencing.
Every 2-3 years. 3 Credits

## CJ-322 Gangs

This course will offer an in-depth study of gangs in the United States. Topics to be examined include various theories of gang formation, group dynamics, and individual factors associated with gang membership. Attention will also be given to the different types of gangs that exist. Given these dynamics, the final portion of the course will focus on prevention and intervention efforts aimed at reducing gang behavior.
Every 2-3 years. 3 Credits

## CJ-325 Capital Punishment

This course focuses on capital punishment law, particularly United States Supreme Court decisions addressing constitutional issues relevant to the death penalty. Students also will explore empirical, penological, political, and moral issues related to the death penalty and its administration.
Every 2-3 years. 3 Credits

## CJ-327 Race, Ethnicity and Criminal Justice

Prerequisites: CJ-205
An examination of the issues of race and ethnicity which continue to affect all aspects of criminal justice in America. Whether as offenders, victims, or as persons working (or seeking to work) within the system, African Americans, Hispanics, and other minorities are treated differently than non-minorities. This course explores the core concepts of race and ethnicity as they have developed in our culture, and examines the evidence for and against various forms of racism and discrimination in key institutions of the criminal justice system. The nature and status of constitutional, statutory, and other remedies are also explored.
Every 2-3 years. 3 Credits

## CJ-332 Violent Crime

Prerequisites: CJ-101, CJ-203 and CJ-205
This course focuses on the study of violence and crime in America through exploring historical perspectives, examining diverse acts of violence, assessing relevant criminology theory regarding the genesis of violent behavior, considering media coverage, and reviewing trends in national and international data on violence. Specific violent crimes such as homicide, family violence, sexual assault, workplace violence, youth violence, and serial crimes will be surveyed. Acts of official violence, such as capital punishment and police brutality, will also be examined along with their impact on society.
Every 2-3 years. 3 Credits

## CJ-333 Terrorism

Prerequisites: CJ-101, CJ-201/CJ-111
This course will explore the development of terrorism as a form of crime. Topics to be studied include major terrorist groups and their strategies, tactics and targets, jurisdictional issues, anti- and counterterrorist operations, federal law enforcement, and future trends in terrorism.
Fall and Spring and every 2-3 years. 3 Credits

## CJ-334 Drugs, Crime and Society

Prerequisites: CJ-101.
This course will present an overview of the problems of drug-related crime in contemporary society. Specific drug substances are discussed, as well as legal, cultural, and social factors in connection with drug law enforcement.
Every 2-3 years. 3 Credits

## CJ-335 Comparative Criminal Justice Systems <br> Prerequisites: CJ-205

Increasingly, practitioners in the American criminal justice systems are required to interact with their counterparts, as well as citizens from other national jurisdictions. Effective interaction, including cooperation and sharing, requires some understanding of how criminal justice is conceived and practiced in other parts of the world. This course examines and compares key institutions of the criminal justice systems in six model countries, two in Europe, two in Asia, one Islamic nation, and one from Latin America. We look not only at formal organizations in each country, but also at actual practices and how they compare with each other and the United States. To understand how differences and similarities have developed, we also learn something of the history, culture, political system and economic conditions of each model country. Every 2-3 years. 3 Credits

## CJ-337 Criminal Justice Ethics

Prerequisites: CJ-101
This course investigates the application of moral logic to problems in the field of criminal justice. Issues related to policing, criminal prosecution, and corrections will be studied. Students will be encouraged to induce general moral precepts and rules from the examination of particular situations and problems.
Every 2-3 years. 3 Credits

## CJ-338 Issues in Contemporary Security

An overview of security systems applicable to contemporary industrial and commercial demands. Losses through physical, technological, and personnel hazards are viewed as preventable phenomena if vulnerabilities are recognized and ameliorative measures taken. Counter-measures will be weighed within the framework of loss criticality and cost of effectiveness.
Every 2-3 years. 3 Credits
CJ-340 Special Topics in Criminal Justice
An in-depth study of a limited or specialized area within the criminal justice field. Course content will vary according to the area of specialization of the instructor and the interest of the students. May be repeated if course content differs.
Other or on demand. 3 Credits

## CJ-351 Applied Research

Prerequisites: CJ-101 and CJ-204.
Students will work directly with one or more of the department faculty member(s) on new or ongoing research focused on a criminal justice topic and will gain practical experience in the research methodology appropriate to the research project. Topics will vary each semester by research needs of the Criminal Justice faculty.
Alternating and every year. 3-9 Credits

## CJ-352 Principles of Investigation

Prerequisites: CJ-101 and CJ-201/CJ-111.
This course provides students with a theoretical framework for the practice of investigation in both the private and public sectors. Various techniques and protocols for investigation will be explored including infractions and ethics investigations and background investigations. Students will link these methods to the collection of physical evidence, interpretation and preservation of data, rules of evidence, techniques of documentation, along with interview and interrogation approaches.
Every 2-3 years. 3 Credits

CJ-354 Addictions Counseling of Individuals and Families
LASC Categories: ICW
Prerequisites: HE-285 or CJ-285
This course provides students with an applied understanding of counseling skills, techniques, and strategies in addiction treatment. The psychology of addictions and various treatment modalities are discussed. Engagement, assessment, treatment planning, brief and ongoing treatment, continuing care, and work with special populations are considered. Dialectical behavior therapy, cognitivebehavioral, mindfulness practice techniques, and motivational interviewing concepts are introduced, and students apply them in role-playing scenarios. Boundaries, ethics, and counselor self-awareness are also covered.
Fall and Spring and every year. 3 Credits

## CJ-360 Program Evaluation

Prerequisites: CJ-101 and CJ-204.
This course will explore the process by which we, in a practical sense, are able to provide useful information and analysis on policy and programs within a given set of real-world constraints. The class contains a service-learning component in which the student will perform a program evaluation on behalf of a community social service agency.
Alternating and every 2-3 years. 3 Credits

## CJ-361 Public Policy in Criminal Justice

Prerequisites: CJ-101
This course provides an overview of how public policy shapes and influences the criminal justice system through the examination of various political, economic, legal, and social contexts. Current issues facing criminal justice policy makers are explored and various policy evaluation methodologies are reviewed. Additionally, reforms of the political process are discussed with respect to critical issues facing the criminal justice system in contemporary America.
Every 2-3 years. 3 Credits

## CJ-371 Strategic Planning

## Prerequisites: CJ-101

This course is designed to acquaint students with general theories of planned change at the individual, organizational, and community levels. Special attention will be given to the need for employee involvement and collaboration in working toward organizational goals, with reference to concepts such as reinventing government and total quality management. The emphasis will be on applied theory. Students will be expected to develop their own ideas for change in the fields of policing, courts, or corrections. They would then be required to consider the resistances that would likely arise as their changes are introduced, and how they should best be dealt with, considering planned change theories from the course.
Every 2-3 years. 3 Credits
CJ-398 Criminal Justice Internship
Prerequisites: $\mathrm{CJ}-101$ and $\mathrm{CJ}-102$ and $\mathrm{CJ}-111$ and CJ-203
Criminal Justice internship involves student fieldbased work experience within selected agencies of the criminal justice system or allied helping agencies. This course is designed to provide students with an opportunity to translate theoretically oriented classroom principles into practical application. Fall and Spring and every year. 3-6 Credits

## CJ-399 Independent Study in Criminal Justice

 Individual research and independent study related to a particular aspect of criminal justice that is of special interest.Every year. 3-6 Credits

## CJ-400 Criminal Justice Capstone <br> LASC Categories: CAP

Prerequisites: CJ-101, CJ-102/CJ-202, CJ-111/ CJ-201, CJ-203/CJ-121, CJ-205, and CJ-331/204. Provide students the opportunity to engage in a culminating experience in which they use critical thinking skills to analyze, integrate, and synthesize the knowledge gained in their major program of study. Students will apply that knowledge and critical thinking skill to the exploration of issues and concerns/problems of the profession in preparation of future employment and/or graduate education. Fall and Spring and every year. 3 Credits

## CJ-401 Forensic Science Senior Seminar <br> Prerequisites: BT-101 and CJ-103

The senior seminar is designed to bring together the diverse areas of knowledge that the student has gained in the area of forensic science. It is a synthesis of classroom knowledge applied to real world forensic science issues. Topics covered emphasize the use of critical thinking skills to analyze, integrate and synthesize research and case studies relevant to the forensic sciences. Spring only and every year. 3 Credits

## CJ-406 The 12 Core Functions of Addictions Counseling

Prerequisites: HE-285 or CJ-285 Take CJ-208 or HE-208; Take PS-270 or HE-270; Take CJ-354 or HE-354;
This culminating course prepares students to enter the field of substance use disorders and/or addictions counseling through an intensive review of the 12 Core Functions of Addictions Counseling. Students further develop the skill sets from prior coursework to serve as a foundation for gaining practical experience in addictions counseling. Fall and Spring and every year. 3 Credits
CJ-407 Pre-Practicum Seminar in Addictions Counseling
Prerequisites: PS-101 Take HE-285 or CJ-285; Take HE-270 or PS-270; Take HE-208 or CJ-208; Take HE-354 or CJ-354;
Prerequisites or Corequisite: CJ-406 or HE-406
The course is designed for students who wish to complete the course Practicum in Addictions Counseling in pursuit of CADC licensure. Students are prepared for fieldwork through practice of counseling techniques, reviews of case studies, and study of counseling theories. All core functions of addictions counseling are reviewed and reinforced, with particular emphasis on assessment, counseling, and case management. Students practice in role play using a variety of modalities while considering the needs of special populations and the opportunities and constraints of various treatment settings. Ethical and legal considerations for addictions counselors are also explored. Open to Addictions Counseling Certificate
Fall and Spring and every year. 3 Credits

## CJ-408 Directed Study: Criminal Justice

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Other or on demand. 3 Credits

## CJ-409 Practicum in Addictions Counseling

Prerequisites: $\mathrm{CJ}-407$ or $\mathrm{HE}-407$
Field experience in which students complete 150 hours of direct care experience in a substance use disorders counseling setting. To qualify for CADC licensure, the practicum must be repeated for a total of 300 hours and 6 credits. Course may be repeated. Fall and Spring and every year. 3 Credits

## Program Learning Outcomes

- Possess the capacity to comprehend and evaluate qualitative and quantitative social science research, including at least a basic familiarity with introductory level statistical concepts.
- Comprehend the Constitutional concepts and values of due process, equal protection, and fundamental fairness in policing, courts and corrections.
- Demonstrate the capacity for ethical and moral reasoning in all aspects of the criminal justice curriculum.
- Comprehend the nature and significance of gender, racial, ethnic-cultural, and class issues in the administration of criminal justice.
- Demonstrate sufficient writing, research, communications, and computer literacy skills to enable graduates to obtain bachelor-level entry in criminal justice and applied professional fields, or alternatively, to pursue graduate studies in such fields and disciplines.
- Be able to employ critical reasoning skills across criminal justice curriculum.
- Demonstrate familiarity with both traditional and contemporary theories of crime causation, and their implications for public policy.
- Be cognizant of the history, development, fundamental concepts, and current operation of American law and our principal criminal justice
institutions, together with their relationships to each other and to the larger social and political context.


## Criminal Justice Major

The Bachelor of Science degree in Criminal Justice is a 120 credit-hour program. It is an interdisciplinary major, predicated on a common core of the humanities, social sciences, mathematics, and physical sciences. The goal of the program is to develop in students critical thinking skills and an increased analytical awareness of the role of law enforcement agencies, courts, correctional institutions, human services, and social advocacy venues in the criminal justice system. The curriculum includes coursework to provide students with awareness of recent advances in human dynamics, civil rights legislation, information technology and security, cybercrime, intelligence organizations, and leadership roles.

The course of study consists of an extensive overview of the criminal justice system and an intensive examination of each of the major components of the system. The program is designed to serve students who may elect to enter the criminal justice profession immediately upon graduation, students of the liberal arts with professional interest in criminal justice, and students who desire to pursue graduate or law school. Criminal Justice majors are able to apply for an internship during their junior year.

To request an application form, please call the Admissions office at 508-929-8040.

## Requirements for a Major

42 credits in criminal justice, of which 22 must be completed at Worcester State University.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Major Core |  | (24 |
|  |  | credits) |
| CJ-101 | Introduction to Criminal Justice | 3 |
| CJ-102 | Introduction to Corrections | 3 |
| CJ-111 | Law Enforcement and Society | 3 |
| CJ-203 | Theories of Crime | 3 |
| CJ-204 | Introduction to Research in Criminal Jus | 3 |
| CJ-205 | American Judicial System | 3 |


|  | Criminal Law | 3 |
| :--- | :--- | ---: |
| CJ-302 | Criminal Justice Capstone | 3 |
| CJ-400 | $\mathbf{( 1 8}$ |  |
| Criminal Justice Electives | credits) |  |
|  | $\mathbf{1 8}$ |  |
| Select $\mathbf{1 8}$ credits | $\mathbf{4 2}$ |  |

## Sample Timeline for Completion of Degree: Criminal Justice

| Year One |  | Credits |
| :--- | :--- | ---: |
| Semester One |  |  |
| LASC | First-Year Seminar (FYS) <br> (p. 50) | 3 |
| EN-101 | College Writing I | 3 |
| CJ-101 | Introduction to Criminal <br> Justice | 3 |
| MA-099 | Developmental Math: <br> Algebra (or higher based on | 3 |
|  | Accuplacer score) <br> LASC | LASC Elective (CON) (p. 47) |
|  | Credits | $\mathbf{1 5}$ |


| Semester Two |  |  |
| :--- | :--- | ---: |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| CJ-102 | Introduction to Corrections | 3 |
| CJ-111 | Law Enforcement and | 3 |
|  | Society |  |
| LASC | LASC Elective (QR) (p. 59) | 3 |
|  | Credits | $\mathbf{1 5}$ |

Year Two

## Semester Three

| CJ-203 | Theories of Crime | 3 |
| :--- | :--- | ---: |
| CJ-205 | American Judicial System | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Semester Four

| CJ-302 | Criminal Law | 3 |
| :--- | :--- | ---: |
| CJ | Elective Course in Major | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 4 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
|  | Credits | $\mathbf{1 6}$ |

## Year Three

Semester Five
SELECT CJ Elective 3


Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Criminal Justice Minor

The Criminal Justice minor is a 21 credit-hour program comprised of 12 major core credits and nine elective credits. Similar to the Criminal Justice major, the minor is an interdisciplinary course of study. This minor can complement a major in Communications, Sociology, Psychology, Computer Science, Urban Studies, History, or other related majors. Students of interdisciplinary studies can benefit from this minor
if they have an interest in pursuing a career within the scope of criminal justice organizations, human services, and social advocacy.

The curriculum provides an intermediate level of exposure to the major components of the criminal justice industry, such as law enforcement and corrections, judicial procedure, and other avenues, depending upon the electives chosen.

## Requirements for a Minor

7 courses comprising 4 core courses and three electives.

| Code | Title | Credits |
| :--- | :--- | ---: |
| Core Courses |  | $(12$ <br> credits) |
| CJ-101 | Introduction to Criminal | 3 |
| Justice | 3 |  |
| CJ-102 | Introduction to Corrections | 3 |
| CJ-111 | Law Enforcement and | 3 |
| CJ-205 | American Judicial System | $(9$ |
| Criminal Justice Electives | credits) |  |

Select three courses 9

Total Credits21

Students will need to obtain a Declaration of Major/Minor from the Registrar's Office and obtain signature of CJ Department Chair. Students seeking entry into the CJ minor must obtain the signature of the CJ Department Chair.

## Homeland Security Minor

Homeland Security Minor
Requirements

| Code | Title | Credits |
| :---: | :---: | :---: |
| Required Courses |  | (18 |
|  |  | credits) |
| CJ-101 | Introduction to Criminal Justice | 3 |
| CJ-212 | Homeland Security | 3 |
| CJ-218 | Emergency Management | 3 |
| Elective Courses - choose 3 courses ( 9 credits) ${ }^{\text {One }}$ course MUST be at the 300 level or above. |  | 9 |

course MUST be at the 300 level or above.

> CJ-216

Cybercrime

| CJ-307 | Contemporary Issues in Law Enforcement |
| :---: | :---: |
| CJ-322 | Gangs |
| CJ-333 | Terrorism |
| CJ-335 | Comparative Criminal Justice Systems |
| CJ-337 | Criminal Justice Ethics |
| CJ-338 | Issues in Contemporary Security |
| CJ-340 | Special Topics in Criminal Justice |
| CJ-352 | Principles of Investigation |
| CJ-371 | Strategic Planning |
| CJ-399 | Independent Study in Criminal Justice |
| CJ-409 | Practicum in Addictions Counseling |
| Total Credits | 18 |
| This program homeland se will be speci management law enforcem view of the d justice agenc and private s | uld introduce students to the field of y and its many functions. Courses $y$ focused on terrorism, emergency bercrime, and federal \& international <br> The program provides a panoramic e issues affecting federal criminal and crime. It also addresses public ity partnerships. |

## Economics

## Department of Business Administration and Economics

The economics program is designed to help students understand the world they live in, analyze important social issues, and adapt to a changing economic climate.

- Economics Major (p. 363)
- Economics Minor (p. 366)


## Faculty

Bonnie Orcutt, Professor (2003), B.S., Worcester State College; M.A., Ph.D., Clark University

Elizabeth J. Wark, Professor (2007), B.A., Mount Holyoke College; M.B.A., University of Massachusetts; M.A., Ph.D., Clark University

Janice G. Yee, Professor (2007), B.A., University of Massachusetts, Dartmouth; M.A., Ph.D., Clark University

## BA courses that will count towards the major or minor in Economics

Students pursuing a major or minor in Economics may elect to use ONE of the following BA courses to count towards their electives in the EC major/minor that may also count within the electives of the BA minor. (Note: There are 15 credits of electives in the EC major, 12 credits of electives in the EC minor, and 12 credits of electives in the BA minor.)

## EC courses that will count towards the major in Economics and the minor in Business Administration

Students pursuing a major in Economics and a minor in Business Administration may use ONE of the following EC courses to count both within the 12 credits of elective courses for the BA minor AND within the 15 credits of electives for the EC major.

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-205 | Money, Banking, and <br> Monetary Policy | 3 |
| EC-301 | Economic Development | 3 |
| EC-307 | International Finance | 3 |
| EC-308 | International Trade | 3 |

## EC courses that will count towards the major in Business Administration and a minor in Economics

Students pursuing a major in Business
Administration and a minor in Economics may use TWO of the following EC courses to count in both within the 12 credits of elective courses for the BA major AND within the 12 credits of electives for the EC Minor:

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-205 | Money, Banking, and <br> Monetary Policy | 3 |
|  | Economic Development | 3 |
| EC-301 | International Finance | 3 |
| EC-307 | International Trade | 3 |
| EC-308 |  |  |


| Code | Title | Credits |
| :--- | :--- | ---: |
| BA-316 | Financial Management | 3 |
| BA-404 | Corporate Finance | 3 |
| BA-415 | Investment Analysis | 3 |
| BA-416 | Financial Markets and | 3 |
|  | Institutions |  |

> EC courses that will count towards the major in Business Administration

> Students pursuing a major in Business Administration may use TWO of the following EC courses to count within the 12 credits of electives for the Business Administration major.

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-205 | Money, Banking, and <br> Monetary Policy | 3 |
| EC-301 | Economic Development | 3 |
| EC-307 | International Finance | 3 |
| EC-308 | International Trade | 3 |
| EC courses that will count towards |  |  |
| meeting the requirements of |  |  |
| the International Business |  |  |
| concentration |  |  |

A maximum of two of the EC courses listed below may be used.

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-301 | Economic Development | 3 |
| EC-307 | International Finance | 3 |
| EC-308 | International Trade | 3 |

## EC courses that will count towards meeting the requirements of the Finance Concentration

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-205 | Money, Banking, and <br> Monetary Policy | 3 |
| EC-307 | International Finance | 3 |

## BA courses and EC courses that will count towards meeting the requirements of a double major in Business Administration and in Economics

Students pursuing a double major in Business Administration and Economics may use:

TWO of the following EC courses to count within the 12 credits of elective (concentration) courses for the BA major, and

ONE of the following BA courses to count within the 15 credits of elective courses for the EC major.

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-205 | Money, Banking, and <br> Monetary Policy | 3 |
|  | Economic Development | 3 |


| EC-307 | International Finance | 3 |
| :--- | :--- | :--- |
| EC-308 | International Trade | 3 |
| BA-316 | Financial Management | 3 |
| BA-404 | Corporate Finance | 3 |
| BA-415 | Investment Analysis | 3 |
| BA-416 | Financial Markets and | 3 |

## EC-102 Consumer Economics

LASC Categories: ICW
An in-depth study of personal and family economics, obtaining income, buying wisely, consumer borrowing, saving, and financial investment; the consumer protection and consumer legislation movements will be specifically emphasized. 3 Credits

EC-104 Personal Financial Planning LASC Categories: ICW An investigation of the major vehicles for personal savings: bonds, stocks, mutual funds, real estate, and retirement and estate planning.
3 Credits

## EC-110 Introduction to Microeconomics

 LASC Categories: HBSAn introduction to the operation of the American market system and to the behavior of its participants whether consumers, producers, the government, or other nations engaged in international trade with the United States.
3 Credits

## EC-120 Introduction to Macroeconomics

LASC Categories: HBS
An introduction to economic analysis with particular emphasis upon the national problems of achieving and maintaining full employment, general price stability, and growth of the American economy through time.
3 Credits

## EC-150 Statistics

LASC Categories: QR
Prerequisites: EC-110 or EC-120 and math placement exam code of at least 4
Basic tools of statistical analysis appropriate to research in the social sciences; topics include measures of central tendency, hypothesis testing, time series, index numbers, regression, and correlation.
3 Credits

## EC-193 First Year Seminar Economics LASC Categories: FYS

Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
3 Credits

## EC-200 Intermediate Macroeconomics

Prerequisites: EC-110 and EC-120
An intermediate analysis of the determination of the level and growth of national income and employment, special attention given to the problems of inflation and recession and to the national fiscal and monetary policies designed to maintain full employment and stable price levels.
3 Credits
EC-201 Intermediate Microeconomics
Prerequisites: EC-110 and EC-120
An intermediate level treatment of the theory of market pricing in a private enterprise system as it affects the resource and output decision of firms and industries under various market structures and the behavior of consumers.
3 Credits
EC-202 Introduction to Mathematical Economics
Prerequisites: EC-110, and EC-120 and MA-110 or MA-180 with a C- or above or math placement exam code of 6 .
A survey of some basic mathematical techniques appropriate to the anaylsis of economic models and application of economic theory.
3 Credits
EC-205 Money, Banking, and Monetary Policy
Prerequisites: EC-110 and EC-120
A study of the roles of money, depository institutions, and central bank monetary policy in maintaining stable growth of the American economy. 3 Credits

## EC-206 Urban Economics

Prerequisites: EC-110 and EC-120
The theory and policy of the growth and development of metropolitan areas; some of the policy-related problems discussed are poverty, residential and commercial land use and traffic congestion. 3 Credits

## EC-208 Economics of Health Care

LASC Categories: ICW, WAC
Prerequisites: EC-110 and EN-102
Introductory study of the health care industry of the United States; pricing of health care, manpower availability, alternative delivery systems, third party payments, and government role in planning, regulating, and financing health care.

## 3 Credits

## EC-210 Current Economic Issues

 Prerequisites: EC-110 EC-120This course is designed to connect economic knowledge and theory acquired at the introductory level to current economic issues and policy. National and international topics of importance will be considered. For example, pollution, trends in productivity, profitability and distribution, debt and deficits, patterns of investment, trade, and globalization and the economic issues of race, gender and poverty may be covered.
3 Credits

## EC-215 Labor Economics

Prerequisites: EC-110 EC-120
A study of the process of wage determination in a market economy, onsideration given to the evolution of union organization and collective bargaining affecting wages, hours, working conditions, and grievance procedures for labor.
3 Credits

## EC-301 Economic Development

Prerequisites: EC-110 and EC-120
A survey of contemporary economic theories concerning less developed countries; social, cultural, and political forces shaping the development of such countries are also investigated.
3 Credits
EC-304 Economics of the Environment
Prerequisites: EC-110 and EC-120
Methods of pollution control and the socio-economic problems caused by pollution, current research on ecology and economics, and the impact that limits on pollution may have on income and population growth. 3 Credits

## EC-306 Introduction to Econometrics

Prerequisites: EC-110, EC-120 and MA-150 or EC-150
The application of statistical techniques to the verification of economic models and examination of economic problems.
3 Credits

## EC-307 International Finance

Prerequisites: EC-110 EC-120
Study of how international trade and investment is financed in a world of floating, fixed and managed exchange rate systems.

## 3 Credits

## EC-308 International Trade <br> LASC Categories: GP

Prerequisites: EC-110 and EC-120
Reasons why nations gain by spatial specialization and exchange with other countries. Analysis of the mechanism by which international equilibrium is restored. Study of trade and foreign exchange policies.
3 Credits

## EC-309 Public Spending and Taxation

Prerequisites: EC-110 and EC-120
An analysis of government spending, revenue sharing, and taxation; includes the impact of government spending upon efficient use of resources and national growth.
3 Credits

## EC-400 Independent Study in Economics

Prerequisites: EC-200 and EC-201.
For the student whose needs cannot be fully met by available offerings; actual arrangements to be made between student and professor; not intended for general enrollment; a limit of three credits can be acquired.
1-3 Credits
EC-402 Internship in Economics
Prerequisites: EC-200 and EC-201 or permission of instructor
Practical experience in economic analysis
with industry and non-profit organizations and government agencies; internships may be of varying length.
1-12 Credits
EC-403 Selected Topics in Economics
Prerequisites: EC-200 and EC-201 or permission of instructor
Covers selected topics in economics of mutual interest to the student and faculty. 3 Credits

## EC-408 Directed Study in Economics

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
1-3 Credits

## EC-490 Capstone in Economics

LASC Categories: CAP
Prerequisites: EC-110 EC-120 EC-200 EC-201 or permission of instructor
Integrative capstone course in economics involving policy analysis and critical application of economic theories.
3 Credits

## Program Learning Outcomes

- Demonstrate the ability to present orally and in writing a coherent, logical economic argument grounded in economic theory
- Read and assess articles of economics topics
- Articulate orally and in writing the core economic principles, concepts, and theories that form the foundation for economic analysis and economic research
- Investigate economic issues by synthesizing, building, and using theories and/or models to predict the behavior of economic agents
- Evaluate economic issues and real world problems through data analysis and the application of appropriate statistical techniques, quantitative, and/or qualitative methods


## Economics Major

The B.S. in Economics will provide each student with knowledge of current economic thought and will develop students' understanding of the role played by economic institutions in society. Having completed a thorough program integrating economic theory and practice, students will be prepared to effectively participate in society as informed citizens to promote social well-being. Students will be prepared to succeed in a wide array of positions in business, government, and nonprofit organizations and will be able to successfully pursue graduate work in economics, and related fields, predominately at the Masters level. Qualified majors will have an
opportunity for honors and advanced coursework, intensive faculty interactions, national and regional competitions and activities, and economic research.

## Graduates with a B.S. in Economics will be able to do

 the following:- demonstrate the ability to present orally and in writing a coherent, logical economic argument grounded in economic theory;
- read and assess articles on economic topics;
- articulate orally and in writing the core economic principles, concepts and theories that form the foundation for economic analysis and economic research;
- investigate economic issues by synthesizing, building, and using theories/models to predict the behavior of economic agents; and
- evaluate economic issues and real world problems through data analysis and the application of appropriate statistical techniques, quantitative and/or qualitative methods.

Omicron Delta Epsilon, the international honor society in economics, is available to outstanding students.

## Requirements for a Major in Economics

33 credits with EC designation

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-110 | Introduction to <br> Microeconomics | 3 |
| EC-120 | Introduction to <br> Macroeconomics | 3 |
| EC-150 | Statistics (or another <br> acceptable statistics course) | 3 |
| EC-200 | Intermediate <br> Macroeconomics | 3 |
| Select one of the following: | 3 |  |
| EC-202 | Intermediate <br> Microeconomics | 3 |
| EC-306 | Economics <br> Introduction to Econometrics <br> (or a course in which <br> calculus is a primary topic) |  |

The remaining 15 (or more) credits may be chosen from economics electives in accordance with special interests and career objectives

## Total Credits

Students are encouraged to take an internship if their program permits.

Students pursuing a major in Economics and a minor in Business Administration may use one of the following EC courses to count both within the 12 credits of elective courses for the BA minor and within the 15 credits of electives for the EC major.

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-205 | Money, Banking, and | 3 |
|  | Monetary Policy | 3 |
| EC-301 | Economic Development | 3 |
| EC-307 | International Finance | 3 |
| EC-308 | International Trade |  |

Once LASC requirements are satisfied, students may select general requirements.

## BA courses that will count towards the major or minor in Economics:

Students pursuing a major or minor in Economics may elect to use ONE of the following BA courses to count towards their electives in the EC major/minor that may also count within the electives of the BA minor. (Note: There are 15 credits of electives in the EC major, 12 credits of electives in the EC minor, and 12 credits of electives in the BA minor.)

| Code | Title | Credits |
| :--- | :--- | ---: |
| BA-316 | Financial Management | 3 |
| BA-404 | Corporate Finance | 3 |
| BA-415 | Investment Analysis | 3 |
| BA-416 | Financial Markets and | 3 |
|  | Institutions |  |

EC courses that will count towards the major in
Business Administration and a minor in Economics:
Students pursuing a major in Business
Administration and a minor in Economics may use TWO of the following EC courses to count in both within the 12 credits of elective courses for the BA major AND within the 12 credits of electives for the EC Minor (maximum of 2 EC courses listed below):

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-205 | Money, Banking, and <br> Monetary Policy | 3 |
|  | Economic Development | 3 |
| EC-301 | International Finance | 3 |
| EC-307 | International Trade | 3 |
| EC-308 |  |  |

EC courses that will count towards meeting the requirements of the International Business concentration.

A maximum of two of the EC courses listed below may beused.

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-301 | Economic Development | 3 |
| EC-307 | International Finance | 3 |
| EC-308 | International Trade | 3 |
| EC courses that will count towards meeting the |  |  |
| requirements of the Finance Concentration: |  |  |
| Code | Title | Credits |
| EC-205 | Money, Banking, and | 3 |
| EC-307 | Monetary Policy | 3 |

BA courses and EC courses that will count towards meeting the requirements of a double major in Business Administration and in Economics:
Students pursuing a double major in Business
Administration and Economics may use:

- TWO of the following EC courses to count within the 12 credits of elective (concentration) courses for the BA major, and
- ONE of the following BA courses to count within the 15 credits of elective courses for the EC major.

| Code | Title | Credits |
| :--- | :--- | ---: |
| EC-205 | Money, Banking, and <br> Monetary Policy | 3 |
| EC-301 | Economic Development | 3 |
| EC-307 | International Finance | 3 |
| EC-308 | International Trade | 3 |
| BA-316 | Financial Management | 3 |
| BA-404 | Corporate Finance | 3 |
| BA-415 | Investment Analysis | 3 |
| BA-416 | Financial Markets and | 3 |
|  | Institutions |  |

Students are required to meet with their department advisor to review their upcoming semester academic choices. A minimum of 120 credits is required for graduation.

## Sample Timeline for Completion of Degree: Economics (for All Students Entering in Fall 2012 or Later)

The order of LASC courses indicated is only a sample. Students may select LASC courses that are available in any given term.

Year One

| Semester One | Credits |  |
| :--- | :--- | ---: |
| LASC | First-Year Seminar (p. 50) | 3 |
| EN-101 | College Writing I (WR) | 3 |
| EC-120 | Introduction to | 3 |
|  | Macroeconomics |  |
| EC-150 | Statistics | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
|  | Credits | 15 |
| Semester Two |  |  |
| EN-102 | College Writing II (WR) | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| EC-110 | Introduction to | 3 |
|  | Microeconomics |  |
| LASC | LASC Elective (QR) (p. 59) | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | Credits | 15 |

Year Two
Semester Three

| SELECT | Economics Elective (\#1) | 3 |
| :---: | :---: | :---: |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 4 |
| SELECT | General Elective | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
|  | Credits | 16 |
| Semester Four |  |  |
| $\begin{aligned} & \text { EC-202 } \\ & \text { or EC-306 } \end{aligned}$ | Introduction to Mathematical Economics or Introduction to Econometrics | 3 |
| SELECT | Economics Elective (\#2) | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 3-4 |
| LASC | LASC Elective (GP) (p. 51) | 3 |


| LASC | LASC Elective (QR) (p. 59) | 3 |
| :---: | :---: | :---: |
|  | Credits | 15-16 |
| Year Three |  |  |
| Semester Five |  |  |
| EC-201 | Intermediate | 3 |
|  | Microeconomics |  |
| SELECT | Economics Elective (\#3) | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
|  | Credits | 15 |
| Semester Six |  |  |
| EC-200 | Intermediate | 3 |
|  | Macroeconomics |  |
| SELECT | Economics Elective (\#4) | 3 |
| LASC | LASC Elective (p.46) ${ }^{1}$ | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
| Year Four |  |  |
| Semester Seven |  |  |
| LASC/EC | Capstone course or Elective \#5 | 3 |
| LASC | LASC Elective (p.46) ${ }^{1}$ | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
| Semester Eight |  |  |
| SELECT | EC Capstone course or | 3 |
|  | Elective \#5 |  |
| LASC | LASC Elective (p.46) ${ }^{1}$ | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
|  | Total Credits | 121-122 |
| ${ }^{1}$ Students need | DAC, 1 WAC and 1 QLAC |  | more information, please view the MajorPlus (p. 65) section of this catalog.

## Economics Minor

The Minor in Economics provides students with an excellent background for work in business fields such as banking, insurance, finance and accounting. Combining an Economics Minor with a B.S. degree in Business Administration helps to give students an edge in the marketplace. The Minor in Economics is equally appropriate for work in the private section, in the not-for-profit section and in the public sector at the federal, state, or local level. The minor may also help to prepare students for careers in teaching, journalism, and law, as well as for admission to graduate programs in public policy, law, business, international relations, journalism and related fields.

Requirements for a Minor

| Code | Title | Credits |
| :---: | :---: | :---: |
| EC-110 | Introduction to | 3 |
|  | Microeconomics (HBS) |  |
| EC-120 | Introduction to | 3 |
|  | Macroeconomics (HBS) |  |
| PLUS Any four additional Economics courses |  | 12 |
| Total Credits |  | 18 |

## English

## Department of English

The English Department offers a major in English and minors in Writing, Literature, Journalism, English (general), and Narratives of Health and Body. All of our programs are designed to be flexible so each student has the opportunity to shape their own course of study, which may include a variety of literature, film, and writing courses. The department offers courses in American, English, and World literatures with a special emphasis on literatures of historically marginalized communities. In addition, the department is particularly strong in creative writing and journalism.

Studying English enables students to examine the world and human experience through its cultural texts. The study of literature and film and other textual forms develops within students a powerful understanding of how narrative and language shape us and the world around us. The English Department strives to develop readers and writers who are empathetic and capable of deep critical analysis with the ability to write creatively and persuasively.

The English major goes well beyond the examination of literary texts and writing practices and encourages students to become more thoughtful and fluent when engaging different ideas and cultures, ultimately leading to greater insight into themselves, those around them, and the communities in which they participate. English majors are able to transfer their skills in creative and critical reading and writing to a variety of professional contexts, while also drawing on their facility with words and story to better understand, engage with, and critique ideas and institutions in their personal, professional, and civic lives.

The English major offers students the opportunity to move outside of the classroom and to apply their developing knowledge of writing, literature, and textual understanding in real-world civic and professional settings through fieldwork, internships, research, or other kinds of applied and sustained engagement with real audiences and communities.

## The Writing Center

The Writing Center, an extension of the English Department, offers students the opportunity to discuss their writing with trained, peer writing
consultants. Writing consultants are recruited from across the university community and represent a variety of majors. Writing consultants can support and help guide student-writers at any stage of a project, from its inception to its final draft. The Writing Center is a safe, non-judgmental space with its sole purpose being to help students successfully navigate any writing project, curricular or extracurricular. The Writing Center is located on the third floor of Sullivan and is open Monday thru Friday. Please stop by or call 508-929-8112.

## English Honor Society

The English Department has an active chapter of Sigma Tau Delta, an international honor society in English. Juniors and Seniors who demonstrate strong academic achievement may apply for membership.

- English Major (p. 377)
- English Major, Concentration in Journalism (p. 379)
- English Major, Concentration in Writing (p. 381)
- English Minor (p. 382)
- Literature Minor (p. 383)
- Narrative Studies of Health and Body Minor (p. 384)
- Writing Minor (p. 384)


## Faculty

Elizabeth Bidinger, Professor (2007), A.B., University of Michigan; M.A., Boston University; Ph.D., University of Connecticut

Jake Garner, Visiting Instructor (2022), B.A., Sterling College; M.A., California Polytechnic State University

Riley B. McGuire, Assistant Professor (2020), B.A., M.A., University of Manitoba; M.A., Ph.D., University of Pennsylvania

Jacqueline A. Morrill, Visiting Instructor (2021), B.A., Worcester State College; M.F.A., Sarah Lawrence College

Matthew Ortoleva, Department Chair, Professor (2011), B.A., Rhode Island College; M.A., Ph.D., University of Rhode Island

Dennis Quinn, Professor (1996), B.A., Worcester State College; M.A., Assumption College; Ph.D., University of Massachusetts

Jamie Remillard, Associate Professor (2017), B.A., Ph.D., University of Rhode Island; M.F.A., Emerson College

Christina Santana, Associate Professor (2016), B.A., M.A., University of Nevada, Reno; Ph.D., Arizona State University

MaryLynn Saul, Professor (1995), B.S., M.A., Ph.D., Ohio State

Hardeep Singh Sidhu, Associate Professor (2016), B.A., Boston University; M.A., Ph.D., University of Rochester

Heather Treseler, Professor (2011), B.A., Brown University; Ph.D., University of Notre Dame

Donald W. Vescio, Jr, Professor (1998), A.B., State University of New York, Oswego; M.A., University of New Hampshire; Ph.D., University of Rochester

Karen Weierman, Professor (2000), B.A., Georgetown University; Ph.D., University of Minnesota

Cleve Wiese, Associate Professor (2014), B.A., Rhodes College; M.A., New York University; Ph.D., State University of Texas, Austin

## Courses

## EN-099 Developmental English

Concentration on language basics - spelling, vocabulary, grammar, usage - with practice in writing sentences and paragraphs. Carries developmental credit (not counted toward degree requirements.) Every year. 3 Credits

## EN-101 College Writing I

LASC Categories: WR1
Prerequisites: PLCMT-EN1
College Writing I focuses on writing as critical inquiry, reflection, and communication. Students practice the fundamentals of effective writing, emphasizing planning, drafting, revising, and editing. (Required of all students unless exempted by the English Department)
Fall and Spring and every year. 3 Credits

## EN-102 College Writing II

LASC Categories: WR2
Prerequisites: EN-101
EN-102 builds upon EN-101 and focuses on research writing, synthesizing sources, critical analysis, argumentation, and information literacies. Students practice the fundamentals of effective writing in collaborative and academic communities, while evaluating and using sources in different rhetorical situations. This course is designed to help students develop transferable skills and strategies that may be applied to a variety of audiences and in a range of situations.
Fall and Spring and every year. 3 Credits

## EN-103 First-Year Writing Lab

This one credit course offers supplemental support for students concurrently enrolled in a section of EN101: College Writing I. First-Year Writing Lab reinforces the fundamentals of effective writing practices and processes, specifically the practices of drafting, revising, editing, and proofreading. In First-Year Writing Lab, students will work Labspecific assignments and activities, as well as on assignments from their specific first-year writing sections, with the goal of learning to transfer and apply a developing set of rhetorical abilities across a variety of writing situations. First-Year Writing Lab is offered pass/fail only.
Fall and Spring and every year. 1 Credit
EN-107 Journalism and Democracy
LASC Categories: WAC
This course introduces students to the history of American journalism and the role of journalism in democratic and non-democratic societies. [Crosslisted with CM-107]
Every year. 3 Credits

## EN-115 LGBTQ+ Narratives

LASC Categories: DIV, ICW, TLC
This course approaches narrative as a key tool for LGBTQ+ individuals to create life-sustaining community, establish identity as artists and activists, and combat social discrimination and stigma. Students will analyze a diverse array of material, including memoir, fiction, poetry, painting, film, and music. Collectively, we will ask what qualifies as a LGBTQ+ narrative: is it determined by the content of a piece, its formal manifestation, the identity of its creator, or something else entirely? The intersections of gender identity and sexual orientation with other components of selfhood-including race, disability, and class-will be essential to our conversations. Alternating and every 2-3 years. 3 Credits

## EN-120 Race in Comics

LASC Categories: TLC, USW, DAC, DIV
Comics offers a unique combination of tools for representing race. Artists have long used either language or visual art to think about identity, but comics merges the two in new ways. In this course, students analyze innovative comics and graphic novels/nonfiction to better understand why this medium is such a productive way to reflect on racial identity. How do comics authors engage with the difficult history of racial caricature and the longstanding lack of diversity in the field? And what can the combination of image and text say about the tension between appearance and identity?
Every 2-3 years. 3 Credits

## EN-132 World Literature

LASC Categories: GP, DAC, TLC, DIV
The course examines the major authors in world literature from ancient to modern times; however, in a given semester the course may focus on one particular time period. All areas of the world are covered, including such areas as Africa, Europe, the Americas. An emphasis will be put on cultural, sociological, historical, and philosophical influences on the literature. Such authors may be included as Chinua Achebe, Pablo Neruda, Bei Dao, Salman Rushdie, Nadine Gordimer, Edwidge Danticat, and Bessie Head.
Fall and Spring and every year. 3 Credits

## EN-140 Introduction to Poetry

## LASC Categories: TLC

Examination and appreciation of the techniques and types of poetry including the sonnet, the pastoral, the mock heroic, and the ode.
Fall and Spring and every year. 3 Credits

## EN-150 The Short Story <br> LASC Categories: TLC

Introduction to the art of the short story through analysis of representative works.
Every year. 3 Credits

## EN-156 Mythology

LASC Categories: TLC, DAC
Myths and legends of ancient Greece and Rome which form a part of the classical tradition in English literature.
Fall and Spring and every year. 3 Credits

## EN-158 Science Fiction

LASC Categories: TLC
The nature and function of nineteenth and twentieth century science fiction literature: Wells, Verne, Asimov, Bradbury, and others.
Every 2-3 years. 3 Credits

## EN-160 Literature of the Bible

LASC Categories: TLC
Biblical writings. Emphasis will be placed on the Old Testament.
Every 2-3 years. 3 Credits

## EN-164 Fantasy, Faerie and Folk Fairy and Folk Tales

 From Around the WorldLASC Categories: TLC, DIV
The course will examine fairy tales and folk tales from across the globe and from different cultural traditions, which may include Indian, Japanese, African, German, Irish, Jewish, African-American, or Hawaiian. The course will compare similar themes, such as identity or distrust of step-parents, in these traditional tales and contrast the differing forms the tales may take in different cultures. Along with traditional folk tales, modern stories reinterpreting a traditional tale from a diverse point of a view (e.g. a lesbian Cinderella) will be analyzed.
Fall and Spring and every 2-3 years. 3 Credits
EN-165 Oral Literature: the Art of Storytelling LASC Categories: TLC, CA
An examination of representative types and stories from diverse cultures and of techniques and practices used by their storytellers.
Every 2-3 years. 3 Credits

## EN-167 Literature and Human Rights LASC Categories: GP, DAC, DIV

The course examines writing about human rights, including memoirs and novels, and examines issues of social justice. Violations of human rights that may be addressed include genocide, political repression, and torture; while social justice issues that may be examined include women's rights, justice and punishment, disability rights and methods of protesting for human rights. The course will examine definitions of human rights as well as reparations and living with the aftermath of human rights violations.
Fall and Spring and every 2-3 years. 3 Credits

## EN-168 Film and Literature <br> LASC Categories: CA, TLC, WAC

An examination of the fundamental, rhetorical techniques of film and literature to determine the similarities of and differences between the two forms of expression.
Every 2-3 years. 3 Credits
EN-169 Ethnic Literature in the U.S.
LASC Categories: USW, TLC, DAC
Study of ethnic literature in the U.S., focusing on
African- American, Asian-American, Latino, and Native-American writers.
Fall and Spring. 3 Credits

## EN-170 Search for Identity

LASC Categories: DAC, TLC, DIV
This course is designed to explore the topic of identity in literature, which may include gender, race, ethnicity, philosophy, body image, physical ability/disability, etc. The course will examine each literary text for the relative importance of the various aspects of identity for each author/character and the intersectionality of identity. Questions to consider will include: which identity is prioritized (by the individual and by society) in any given situation? What or who determines which aspect of identity is prioritized at different moments? How do conflicts in identity for an individual get resolved?
Other or on demand. 3 Credits

## EN-172 Women and Literature

LASC Categories: WAC, TLC, GP
Explores basic issues and problems in literature by and about women.
Every year. 3 Credits

EN-173 Baseball: America's Literary Pastime<br>LASC Categories: TLC, DAC, WAC<br>Prerequisites: EN-102 or EN-202

This course will survey the literature of baseball, including writers from the golden era of baseball, such as Ernest Lawrence Thayer, Charles E. Van Loan, Albert G. Spalding, Damon Runyon, and Ring Lardner, to more contemporary authors, such as May Swenson, Roger Angell, Robert Creamer, and Annie Dillard. We will consider baseball writing within the context of American social, political, and historical perspectives, examining such themes as the idealism of sport, public mythologies, race relations, and national identity.
Other or on demand and other or on demand. 3
Credits
EN-174 Women Poets
LASC Categories: TLC, WAC, GP
Prerequisites: Fulfillment of Writing II
A close reading and analysis of poetry written by women from a historical as well as a contemporary feminist perspective.
Other or on demand. 3 Credits
EN-180 Kerouac, Ginsberg, and the Beats
LASC Categories: WAC
Prerequisites: EN-102 or EN-202
This course will examine representative works from Jack Kerouac, Allen Ginsberg, and other writers associated with the Beat Generation, such as William Burroughs, Peter Orlovsky, Gary Snyder, Carolyn Cassady, Joyce Johnson, and Elise Cowen. In addition, this course will explore the literary, political, and social precursors that gave rise to the Beats, as well as the influence that the Beats had on 1960s politics and popular culture. Finally, the writing of the Beats will be considered through the broader contexts of gender, religion, social status, and economics.
Other or on demand. 3 Credits

## EN-190 Special Readings in Literature

An introductory literature course responsive to
current interests or controversies.
3 Credits
EN-193 First Year Seminar English
LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Every year. 3 Credits

## EN-202 Honors Composition <br> LASC Categories: WR2

Focuses on writing development for academic success and citizenship, emphasizing rhetorical analysis, information literacy, and academic and public discourse. Honors students only. Every year. 3 Credits

## EN-207 The Writer's Life <br> LASC Categories: WAC

Students examine the role of the writer in society and map their own possible career paths as writers. Every year. 3 Credits

EN-210 U.S. Literature (Beginnings-1865)
LASC Categories: DIV, TLC, USW
In this course students will read a broad selection of the most exciting and important literature produced in the United States from its beginnings to 1865. In small, discussion-based class meetings and regular writing assignments, students will analyze the diverse ways that U.S. authors have innovated in response to the culture at large and to the traditions of literature that came before them. In close readings of fiction, life writing, poetry, essays, and more, students will pay particular attention to how differences in power among social groups (such as class, gender, or race) have shaped the nation's literary history.
Alternating and every year. 3 Credits

## EN-211 U.S. Literature (1865-Present) LASC Categories: DIV, TLC, USW

In this course students will read a broad selection of the most exciting and important literature produced in the United States from 1865 to the present. In small, discussion-based class meetings and regular writing assignments, students will analyze the diverse ways that U.S. authors have innovated in response to the culture at large and to the traditions of literature that came before them. In close readings of fiction, life writing, poetry, essays, and more, students will pay particular attention to how differences in power among social groups (such as class, gender, or race) have shaped the nation's literary history.
Alternating and every year. 3 Credits

## EN-214 Introduction to Digital Humanities <br> LASC Categories: QAC, WAC <br> Prerequisites: EN102 or equivalent

This course is an introduction to the use of digital technologies in the analysis, production, and reception of texts. Most of us already are digital scholars, as we read information electronically, collaborate online, and write texts using computers. This course addresses instances in which we create or use information that is uniquely keyed to digital technologies, such as developing visual representations of narrative, using artificial intelligence to assess writing, statistically analyzing poetry, or crowd-sourcing creative and academic writing. This course will explore the theoretical and practical implications of reading and writing in a digital age.
Other or on demand and every year. 3 Credits
EN-217 Introduction to Narrative Studies of Health and Medicine LASC Categories: HBS, ICW
This course offers students an introduction to narrative representations of illness, health, and healing. Students consider works of literature, literary theory, and film in their narrativization of the dynamic between patient and clinician, the role (and limitations) of empathic recognition, the ethical issues in healthcare settings, and rhetorical constructions of normalcy, disability, disease, agency, and well-being. The course introduces students to literary traditions as well as to journalistic and narrative methodologies that inform a humanistic approach to stories about the science of health and medicine.
Alternating and every year. 3 Credits
EN-220 English Literature (beginnings to 1798) LASC Categories: ICW, GP, TLC
The diverse course covers major works and authors from the beginnings of literature in the British Isles up until the end of the 18th century. Authors included are major writers Chaucer, Shakespeare, and Milton, as well as other authors such as Amelia Lanyer, Margery Kempe and Olaudah Equiano. Emphasis will be put on the historical and sociological environment as well as the literary and thematical developments that each work demonstrates. The course may focus on such themes or events as women's roles, human rights, the Atlantic slave trade and colonization. Fall and Spring and every year. 3 Credits

## EN-221 English Literature (1798-Present) LASC Categories: GP, ICW, TLC

An introduction to major developments in the literatures of England from 1798 to the present alongside the socio-political debates that influenced them. Though intended as an overview of more than two centuries of literature, the course focuses on how differences in power between various social groups within England and across the world intimately informed the period's cultural output. The readings consist of a diverse range of genres lyrical poetry, realist novels, abolitionist lifewriting, travelogues, stage comedies - that engage with key issues that will shape class discussions and lectures, including colonization, urbanization, rising literacy rates, technological advancements, and more. Alternating and every year. 3 Credits

## EN-230 Environmental Literature LASC Categories: CA, ICW

This course will focus on how environmental writers challenge and change how we perceive human ecological relationships to the natural world. We will address the following questions: How have writers challenged us to think about our place in a shared world and our responsibilities toward our ecological communities? How have writers attempted to awaken us to our connections to the natural world and the non-human other? How do these connections feed our mind, body, and spirit? We will also consider their warnings of what happens when we ignore our ecological selves, our ecological communities, and our ecological responsibilities.
Every 2-3 years. 3 Credits

## EN-240 Survey of Postcolonial and Transcultural

 LiteratureLASC Categories: GP
Prerequisites: EN-102
Introduction to literatures in English from formerly colonized countries in Africa, Asia, and the Caribbean, and from the postcolonial diaspora.
Every year. 3 Credits

## EN-252 Technical Writing

LASC Categories: WAC
Prerequisites: EN-102
Focuses on how to write and produce basic documents, from research and progress reports to brochures and manuals.
Fall and Spring and every year. 3 Credits

## EN-253 Business Communications

LASC Categories: WAC
Prerequisites: EN-102
A consideration of accepted business
communication conventions: correspondence, memoranda, survey reports, proposals, interim reports and project reports.
Fall and Spring and every year. 3 Credits

## EN-254 Critical Writing

Critical examination of English prose style; class reports; practice in the writing of analytical papers. Spring only and every 2-3 years. 3 Credits

## EN-255 Methods of Literary Study

LASC Categories: TLC, WAC
Prerequisites: EN-102
Introduction to critical methods of interpreting literature through examination of works by major authors.
Fall and Spring and every year. 3 Credits

## EN-256 Creative Writing: Fiction

LASC Categories: CA
Prerequisites: EN-102
An opportunity to develop the student's writing ability and critical sense; work of students and professional authors will be analyzed.
Every year. 3 Credits

## EN-257 The Power of Memoir <br> LASC Categories: TLC, CA, WAC <br> Prerequisites: EN-102

Examines the craft and theory of memoir through wide-ranging readings and intensive practice in writing and workshopping personal narratives. 3 Credits

EN-258 Creative Writing: Nonfiction
LASC Categories: CA
Prerequisites: EN-102
A course focused on memoir and narrative journalism; students analyze and create short works of nonfiction.
Every 2-3 years. 3 Credits

## EN-260 Creative Writing: Poetry I

LASC Categories: CA, TLC
Prerequisites: EN-102
Developing the student's skill in the creation of poetry; attention to contemporary trends in American poetry.
Every year. 3 Credits

EN-262 Creative Writing: Poetry II
LASC Categories: CA
Prerequisites: EN-102
Conversation with practicing poets; preparation of a small booklet of poems.
Every year. 3 Credits
EN-266 Journalism: Practice and Techniques
LASC Categories: WAC, TLC
Prerequisites: EN-102
Training in developing, reporting, writing and editing straight news, feature, profile, and interpretive stories.
Every year. 3 Credits
EN-267 Journalism: Advanced Newswriting
LASC Categories: WAC
Prerequisites: EN-102
Provides advanced training in the development and writing of straight news stories.
Every 2-3 years. 3 Credits
EN-268 Journalism: Feature Writing
LASC Categories: WAC, CA
Prerequisites: EN-102
Provides advanced training in finding, researching, developing, and writing feature stories for newspapers and magazines. [Cross-listed with CM-268]
Every 2-3 years. 3 Credits
EN-270 Journalism: Editing
LASC Categories: WAC, TLC
Prerequisites: EN-102
Training in copy selection, copy editing, story placement, headline writing, layout, and use of style books. [Cross-listed with CM-270]
Every 2-3 years. 3 Credits
EN-271 Journalism Workshop
LASC Categories: WAC
Prerequisites: EN 102.
Provides laboratory sessions in all aspects of journalism for advanced writers; emphasis on publication.
Every 2-3 years. 3 Credits
EN-272 News Reporting and Writing I
LASC Categories: ICW, USW, WAC
Prerequisites: EN-102 and EN-107
Includes fundamentals of news judgement, events coverage, sourcing, interviewing, writing on deadline, fact checking and basic editing.
Every year. 3 Credits

## EN-275 Sportswriting <br> LASC Categories: WAC <br> Prerequisites: EN-102

Introduces students to the journalistic art of sportswriting, reporting, and interviewing for various media.
Every year. 3 Credits
EN-281 Writing for Digital Environments
LASC Categories: WAC, QAC
Prerequisites: EN-102 or EN-202
This course will provide theories and strategies for writing in digital environments, with special emphasis on the rhetorical conventions for online communication and the design of digital information. Increasingly, information is presented in digital format, which assumes different user experiences than those normally associated with print media. The goal of this course is to explore the expectations and requirements of digital writing, how writers and readers negotiate information in non-physical spaces, and how specific characteristics of different digital environments shape what we can say, and how we say it.
Other or on demand and other or on demand. 3
Credits
EN-300 History of the English Language
LASC Categories: TLC
Prerequisites: EN-102
A study of the origins of the English language from Old English through Middle English to the present. Other or on demand. 3 Credits
EN-302 Medieval Literature
Ideas of medieval christianity, courtly love, and chivalric honor as they appear in lyric poetry, drama, and Arthurian romance.
Every 2-3 years. 3 Credits
EN-303 Arthurian Literature
LASC Categories: TLC
LASC Categories: TLC
This course traces the development of the Arthurian legends from their Celtic origins up through the modern period.
Every 2-3 years. 3 Credits

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## EN-306 The Renaissance <br> LASC Categories: TLC <br> Prerequisites: EN-102

The non-dramatic literature of Tudor England; emphasis on More, Wyatt, Sidney, Spenser, the earlier works of Shakespeare, Donne and Bacon.
Every 2-3 years. 3 Credits

## EN-311 Young Adult Literature

Prerequisites: EN-102
Theoretical and critical approaches to classic and contemporary texts written for young adults aged pre-teen to late teen.
Every 2-3 years. 3 Credits

## EN-318 Romantic Literature

Prerequisites: EN-102
Poetry and prose with special emphasis on the poetry of Wordsworth, Coleridge, Shelley, Byron, and Keats.
Every 2-3 years. 3 Credits
EN-320 Victorian Literature
LASC Categories: TLC, WAC
Prerequisites: EN-102
Study of selected prose and poetry of the major writers of the Victorian period.
Fall and Spring and every 2-3 years. 3 Credits

## EN-321 Romantic and Victorian Gothic

LASC Categories: TLC
Prerequisites: EN-102
This genre gives students insight into the important writers, texts, and issues of the Victorian and Romantic eras.
Every 2-3 years. 3 Credits

## EN-322 Community Writing

LASC Categories: ICW, DIV, DAC
Prerequisites: EN-102 or EN-202
An introduction to writing about, for, and with communities. Students learn to successfully complete individual or group community writing projects, which begin when relationships are built with community organizations to identify a communication need. Then, in collaboration, possible solutions are identified to address the communication need with the goal of developing and delivering a document for use by the partnering community organization that helps to solve the problem. As a result, students develop practical writing experience and an ability to act as a writing consultant.
Spring only and every year. 3 Credits

## EN-328 Narratives of U.S. Immigration <br> LASC Categories: TLC, USW, DAC, WAC <br> Prerequisites: EN-102 or EN-202

In this course students examine narratives of United States immigration in literature, film, and history. The immigrant narrative is both a foundational American story and also a story of the outsider to American culture. Students explore how authors navigate these conflicting poles, and how they complicate myths of the U.S. as a melting pot and land of opportunity. Topics for discussion include: assimilation and pluralism; citizenship, class, ethnicity, gender, language, nationality, race, and religion; diaspora; labor; nativism and xenophobia; and the social, legal, and political history of American immigration. Every 2-3 years. 3 Credits

## EN-334 Modern Poetry

Prerequisites: EN-102
Close analysis of the development of British and American poetry from the late nineteenth century to World War II.
Every 2-3 years. 3 Credits

## EN-335 Writing About Food Systems

Prerequisites: EN-102 or EN-202.
Food systems are complex and vulnerable, but our lives depend upon their sustainability. In all efforts to support socially just, sustainable food systems, language matters. This course engages students in learning about and writing about sustainable and just food systems. Students will gain an understanding of the interconnected ecological, cultural, political, economic, social, ethical, material, affective, and aesthetic dimensions of food systems; create written deliverables that respond to an authentic community need concerning sustainable and just food systems, address an audience external to the class through their writing, and participate in collaborative, community-based action and service. Alternating and every 2-3 years. 4 Credits

## EN-336 Contemporary Poetry

Prerequisites: EN-102
Concentrates on poets whose major work was written after World War II: Special attention to authors presently writing and publishing.
Every 2-3 years. 3 Credits

## EN-338 Contemporary Novel

Prerequisites: EN-102
American and English novels after World War II with emphasis on living novelists.
Every 2-3 years. 3 Credits

## EN-341 Advanced Practices in Writing LASC Categories: WAC

Students gain advanced practices and skill in professional writing genres. Rotating topics and genres. Consent of instructor. Every year. 3 Credits

## EN-342 The American Novel I

LASC Categories: WAC, TLC
Prerequisites: EN-102
The American novel from its origin to 1900.
Every 2-3 years. 3 Credits
EN-344 American Novel II
LASC Categories: TLC, WAC
Prerequisites: EN-102
The American novel from the late nineteenth century until the mid-twentieth century.
Fall and Spring and every 2-3 years. 3 Credits
EN-345 American Women Writers
LASC Categories: USW, DAC
Prerequisites: EN-102
The course examines major works by American women writers in fiction, non-fiction, poetry, and drama within applicable critical contexts.
Every 2-3 years. 3 Credits
EN-347 Studies in U.S. Ethnic Literature
LASC Categories: USW
Prerequisites: EN-102
Selected topics in U.S. ethnic literature, including thematic and comparative approaches,and in-depth studies of a single ethnic literature.
Every 2-3 years. 3 Credits
EN-348 Postcolonial Women's Writing
LASC Categories: GP
Prerequisites: EN-102
Writing by women from colonized and formerly colonized countries on local and global issues shaping women's lives and creative expression. Every 2-3 years. 3 Credits

EN-350 Chaucer
Prerequisites: EN-102
A study of the development of Chaucer's versatile art and writings as expressive of the later Middle Ages. Every 2-3 years. 3 Credits

## EN-352 Practicum in Journalism

LASC Categories: WAC
Prerequisites: EN-270 and EN-272
Workshop in which students report, write, and edit the online college news magazine. Participate in all aspects of publication. [Cross-listed with CM-352] Alternating and every year. 3 Credits

EN-353 Narrative Journalism
LASC Categories: CA, WAC
Prerequisites: EN-272
Students analyze and create in-depth journalistic features and nonfiction stories that blend reporting with techniques of fictional storytelling. [Cross-listed with CM-353]
Every 2-3 years. 3 Credits

## EN-354 Opinion Writing

LASC Categories: ICW, WAC
Prerequisites: EN-272
Students analyze and practice writing op-eds and other opinion pieces. Learn to write commentary that is publication ready. [Cross-listed with CM-354]
Every 2-3 years. 3 Credits

## EN-355 Practicum in English

Students engage in experiential learning, project management, and the application of skills, practices, and knowledges gained through course work in English while collaborating with WSU faculty, staff, community partners, or other students. Students further develop their critical, problem-solving, and communicative skillset while adapting what they have learned to new environments and challenges. May be repeated multiple times.
Fall and Spring and every year. 1 Credit

## EN-358 Disability Stories, Disability Studies <br> LASC Categories: DIV, HBS, ICW, TLC <br> Prerequisites: EN-102 or EN-202.

This course introduces students to the field of disability studies by examining depictions of disability in literature. We will discuss foundational texts and consider key terms including ableism, access, medicalization, representation, and prosthesis. We will also discuss the ways that disability intersects with other aspects of identity such as race, class, gender, and sexuality. Our readings will span multiple centuries and will include poems, memoirs, films, and critical essays by leading disability studies scholars. Together, we will question the construction of bodily, mental, and social norms and analyze how narratives both resist and conform to cultural conceptions of disability.
Alternating and every 2-3 years. 3 Credits

## EN-360 Shakespeare I

Prerequisites: EN-102
Major plays. Required of all English majors.
Fall and Spring and every year. 3 Credits
EN-362 Shakespeare II
Prerequisites: EN-102
A continuation of EN360; includes the sonnets and less familiar plays.
Every 2-3 years. 3 Credits

## EN-364 Elizabethan and Jacobean Drama <br> LASC Categories: WAC <br> Prerequisites: EN-102

A critical analysis of plays by the contemporaries of Shakespeare: Kyd, Marlowe, Greene, Jonson, Ford, Webster, and others.
Other or on demand and every 2-3 years. 3 Credits

## EN-370 Antislavery Literature

LASC Categories: TLC, USW, DAC, WAC, DIV
Prerequisites: EN-102 or EN-202 or EN-250
This course traces the literary history of the antislavery movement in the Atlantic World: writing in a range of genres, antislavery writers made a significant contribution to the campaigns to end the slave trade and slavery. These texts also shaped the history and memory of legal enslavement and its aftermath. While the Atlantic system of legal slavery ended in the nineteenth century, an even larger system of illegal slavery still exists, and so the course concludes by considering the work of contemporary antislavery writers and what they might learn from their predecessors.
Fall only and every 2-3 years. 3 Credits

## EN-380 Milton

Prerequisites: EN-102
A study of Milton's work from early poems to Paradise Lost, Paradise Regained, and Samson Agonistes; includes some prose pamphlets. Every 2-3 years. 3 Credits

## EN-390 Irish Literary Revival

Prerequisites: EN-102
The Irish literary renaissance; the origins of the movement; includes Joyce, Yeats, Synge, O'Casey, Lady Gregory, and others.
Every 2-3 years. 3 Credits

## EN-400 Seminar in English

Prerequisites: EN-102
Student presentations on individual figures and particular problems in literature.
Every year. 3 Credits

## EN-408 Directed Study: English

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Fall and Spring. 1-3 Credits

## EN-410 Theories and Practices of Writing Consul Prerequisites: EN-102

Training and practice in one-to-one assistance for students' writing for any course, stage, or specific need.
Fall only and every year. 3-6 Credits
EN-411 Theory and Teaching of Writing
Prerequisites: EN-102
Every 2-3 years. 3 Credits
EN-416 Media Law and Ethics
Prerequisites: EN-272 or CM-272
An overview of the U.S. legal and justice systems and an examination of ethical issues in mass media.
[Cross-listed with EN-416]
Every 2-3 years. 3 Credits
EN-425 Independent Study in English Prerequisites: EN-102
An opportunity for further study in a special field of interest under faculty supervision. Consent of instructor.
Fall and Spring and every year. 1-6 Credits

## EN-426 Senior Seminar

LASC Categories: CAP
Prerequisites: EN-255
Course provides an option for seniors to fulfill their university capstone requirement in the discipline. Consent of instructor.
3 Credits

## EN-450 Special Topics in English

Prerequisites: EN-102
Specific content will vary in response to particular student and faculty interests.
Fall and Spring and every year. 3 Credits

## EN-475 Internship in English

Prerequisites: EN-102.
Provides majors the opportunity to gain practical experience in areas where they may apply acquired critical and writing skills. Consent of instructor Fall and Spring and every year. 3-6 Credits

## JO-101 Introduction to Journalism

LASC Categories: ICW, USW, WAC
Prerequisites: EN-102 or EN-202
Includes fundamentals of news judgement, events coverage, sourcing, interviewing, writing on deadline, fact checking and basic editing.
Other or on demand. 3 Credits

## JO-201 Multimedia Journalism

LASC Categories: WAC
Prerequisites: EN-101
Workshop in which students report, write, and edit the online college news magazine. Participate in all aspects of publication.
Alternating and every year. 3 Credits

## Program Learning Outcomes

- Analyze and document the history, conventions, methodologies, and practices of literary, cultural, and rhetorical studies as a form of academic inquiry, a pathway for personal growth and expression, a framework for engaging with critical moral and ethical issues, and a site of analysis of identity construction and power inequities.
- Analyze texts across historical, geographical, and cultural boundaries and interrogate workings of difference, hierarchy, and power, both within and across texts, including the intersections of multiple identity categories including ability, class, ethnicity, gender, nationality, race, religion, and sexuality.
- Interpret a variety of forms, genres, styles, structures, and modes of writing, while articulating and demonstrating the value of close reading in the study of literature, creative writing, rhetoric, media, and other forms of discourse.
- Design, conduct, and deliver research projects effectively and ethically.
- Produce and analyze writing across a wide range of modes, including creative, professional, personal, print, and digital expression.
- Apply the content and methodologies of literature and writing studies outside of the classroom, in civic and professional environments.


## English Major

Requirements for a Major

| Code | Title | Credits |
| :---: | :---: | :---: |
| Foundation |  | 6 |
| EN-210 | U.S. Literature (Beginnings-1865) |  |
| EN-211 | U.S. Literature (1865Present) |  |
| EN-220 | English Literature (beginnings to 1798) |  |
| EN-221 | English Literature (1798- <br> Present) |  |
| EN-240 | Survey of Postcolonial and Transcultural Literature |  |
| EN-255 | Methods of Literary Study |  |
| EN-300 | History of the English Language |  |

Literature 3

| EN-120 | Race in Comics |
| :--- | :--- |
| EN-132 | World Literature |
| EN-140 | Introduction to Poetry |
| EN-150 | The Short Story |
| EN-156 | Mythology |
| EN-158 | Science Fiction |
| EN-160 | Literature of the Bible |
| EN-164 | Fantasy, Faerie and Folk |
|  | Fairy and Folk Tales From |
| EN-167 | Literature and Human Rights |
| EN-168 | Film and Literature |
| EN-169 | Ethnic Literature in the U.S. |
| EN-170 | Search for Identity |
| EN-172 | Women and Literature |





| EN-132 | World Literature |  |
| :---: | :---: | :---: |
| EN-167 | Literature and Human Rights |  |
| EN-169 | Ethnic Literature in the U.S. |  |
| EN-172 | Women and Literature |  |
| EN-174 | Women Poets |  |
| EN-240 | Survey of Postcolonial and Transcultural Literature |  |
| EN-328 | Narratives of U.S. Immigration |  |
| EN-345 | American Women Writers |  |
| EN-347 | Studies in U.S. Ethnic Literature |  |
| EN-348 | Postcolonial Women's Writing |  |
| EN-370 | Antislavery Literature |  |
| Applied Stu |  | credits) |
| Select one | studies elective | 3 |
| EN-271 | Journalism Workshop |  |
| EN-322 | Community Writing |  |
| EN-352 | Practicum in Journalism |  |
| EN-410 | Theories and Practices of Writing Consul |  |
| EN-426 | Senior Seminar |  |
| EN-475 | Internship in English |  |
| Upper Level Literature Electives |  | credits) |
| Select two literature electives from 300/400 level courses |  | 6 |
| Journalism Requirements |  | credits) |
| EN-107 | Journalism and Democracy | 3 |
| EN-272 | News Reporting and Writing I | 3 |
| EN-416 | Media Law and Ethics | 3 |
| Journalism Electives |  | credits) |
| Select 2 electives from the following: |  | 6 |
| EN-268 | Journalism: Feature Writing |  |
| EN-270 | Journalism: Editing |  |
| EN-275 | Sportswriting |  |
| EN-352 | Practicum in Journalism |  |
| EN-353 | Narrative Journalism |  |
| EN-354 | Opinion Writing |  |
| EN-475 | Internship in English |  |

Total Credits
39

Prerequisites
Code Title
The following are prerequisites for every journalism course except EN-270, which has only EN-102 (or equivalent LASC course) as a prerequisite:

| EN-102 | College Writing II (or <br> equivalent LASC course) |
| :--- | :--- |
| EN-107 | Journalism and Democracy |
| EN-272 | News Reporting and Writing I |

Total Credits

## English Major, Concentration in Writing

## Requirements for a Major in English, Concentration in Writing

15 credits in writing courses (exclusive of EN-101 and EN -102) in addition to the English major. The remaining 6 credits must be literature electives at the 300 -level or above. Some courses have multiple designations, but may only be used to fulfill one category requirement.

| Code | Title | Credits |
| :---: | :---: | :---: |
| English Major Foundation Requirements |  | (6 |
|  |  | credits) |
| Take two foundation courses |  | 6 |
| EN-210 | U.S. Literature <br> (Beginnings-1865) |  |
| EN-211 | U.S. Literature (1865Present) |  |
| EN-220 | English Literature (beginnings to 1798) |  |
| EN-221 | English Literature (1798- <br> Present) |  |
| EN-240 | Survey of Postcolonial and Transcultural Literature |  |
| EN-255 | Methods of Literary Study |  |
| Literatures |  | $\begin{array}{r} \text { (3 } \\ \text { credits) } \end{array}$ |
| Select one literature course |  | 3 |
| EN-120 | Race in Comics |  |
| EN-132 | World Literature |  |
| EN-140 | Introduction to Poetry |  |
| EN-150 | The Short Story |  |
| EN-156 | Mythology |  |
| EN-158 | Science Fiction |  |


| EN-160 | Literature of the Bible |
| :--- | :--- |
| EN-164 | Fantasy, Faerie and Folk <br> Fairy and Folk Tales From <br> Around the World |
| EN-167 | Literature and Human Rights |
| EN-168 | Film and Literature |
| EN-169 | Ethnic Literature in the U.S. |
| EN-170 | Search for Identity |
| EN-172 | Women and Literature |
| EN-173 | Baseball: America's Literary |
| EN-174 | Pastime |
| EN-180 | Wemen Poets |
|  | Beats |


| EN-210 | U.S. Literature <br> (Beginnings-1865) |
| :--- | :--- |
| EN-211 | U.S. Literature (1865- <br> Present) |
| EN-220 | English Literature <br> (beginnings to 1798) |
| EN-221 | English Literature (1798- <br> Present) |
| EN-230 | Environmental Literature |
| EN-240 | Survey of Postcolonial and <br> Transcultural Literature |

Writing Courses (15
credits)
15
Select 15 credit hours from the following: 15
EN-207 The Writer's Life
EN-252 Technical Writing
EN-253 Business Communications
EN-256 Creative Writing: Fiction
EN-257 The Power of Memoir
EN-258 Creative Writing: Nonfiction
EN-260 Creative Writing: Poetry I
EN-262 Creative Writing: Poetry II
EN-266 Journalism: Practice and Techniques

| EN-267 | Journalism: Advanced <br> Newswriting |
| :--- | :--- |
| EN-268 | Journalism: Feature Writing |
| EN-270 | Journalism: Editing |
| EN-272 | News Reporting and Writing I |
| EN-275 | Sportswriting |
| EN-281 | Writing for Digital |
| EN-341 | Advanced Practices in <br>  <br> EN-352 |


| EN-353 | Narrative Journalism |  |
| :---: | :---: | :---: |
| EN-354 | Opinion Writing |  |
| EN-411 | Theory and Teaching of Writing |  |
| CM-366 | Scriptwriting |  |
| A 3-6 cre in Englis languag | nship in writing, whether 10 or EN-475) or other 75 or SP-475) |  |
| Historically | lized Traditions | $\begin{array}{r} \text { (3 } \\ \text { credits) } \end{array}$ |
| Select one | from this section | 3 |
| EN-120 | Race in Comics |  |
| EN-132 | World Literature |  |
| EN-167 | Literature and Human Rights |  |
| EN-169 | Ethnic Literature in the U.S. |  |
| EN-172 | Women and Literature |  |
| EN-174 | Women Poets |  |
| EN-240 | Survey of Postcolonial and Transcultural Literature |  |
| EN-328 | Narratives of U.S. Immigration |  |
| EN-345 | American Women Writers |  |
| EN-347 | Studies in U.S. Ethnic Literature |  |
| EN-348 | Postcolonial Women's Writing |  |
| EN-370 | Antislavery Literature |  |
| Applied Stu |  | $\begin{array}{r} \text { (3 } \\ \text { credits) } \end{array}$ |
| Select one | from these courses | 3 |
| EN-271 | Journalism Workshop |  |
| EN-322 | Community Writing |  |
| EN-352 | Practicum in Journalism |  |
| EN-410 | Theories and Practices of Writing Consul |  |
| EN-426 | Senior Seminar |  |
| EN-475 | Internship in English |  |
| Upper Level Literature Courses |  | $\begin{array}{r} (6 \\ \text { credits) } \end{array}$ |
| Take two additional literature courses at the 300/400 level |  | 6 |

Total Credits
36

## English Minor

The English minor allows students to explore their interests in literature, film, and writing through a flexible, largely student-designed minor. The English minor allows students to develop a program of study
around their individual interests and/or connections to their major area of study. This minor can be an engaging supplement to any major or can serve as an entirely different area of specialization, exploration, and inquiry.

The English minor is the department's most flexible minor and allows students the opportunity to take courses in literature, film, and writing in a manner that best suits their needs and aspirations.

## English Minor (18 Credits)

| Code | Title | Credits |
| :--- | ---: | ---: |
| Required |  | $(6$ |
|  |  | credits) |

## Foundations

Take 1 course from the following: 3

| EN-210 | Survey of American Literature I |
| :---: | :---: |
| EN-211 | Survey of American Literature II |
| EN-220 | Survey of English Literature I |
| EN-221 | Survey of English Literature II |
| EN-240 | Survey of Postcolonial and Transcultural Literature |
| EN-255 | Methods of Literary Study |
| Historically Marginalized Traditions |  |
| Take one course from the following: |  |
| EN-120 | Race in Comics |
| EN-132 | World Literature |
| EN-167 | Literature and Human Rights |
| EN-169 | Ethnic Literature in the U.S. |
| EN-172 | Women and Literature |
| EN-174 | Women Poets |
| EN-240 | Survey of Postcolonial and Transcultural Literature |
| EN-328 | Narratives of U.S. <br> Immigration |
| EN-345 | American Women Writers |
| EN-347 | Studies in U.S. Ethnic Literature |
| EN-348 | Postcolonial Women's Writing |
| EN-370 | Antislavery Literature |

Electives (12
credits)

| English electives (exclusive of EN 101, EN 102, | 6 |
| :--- | ---: |
| EN 202) |  |
| $300-$ or 400-level Literature electives 6 <br> Total Credits 18 <br> Literature Minor  <br> Requirements for Literature Minor  <br> (18 Credits)  <br> Code  <br> Required Courses Credits <br>  $(18$ <br> Foundations credits) |  |

Take one course from the following:

| EN-210 | U.S. Literature <br> (Beginnings-1865) |
| :---: | :--- |
| EN-211 | U.S. Literature (1865- <br> Present) |
| EN-220 | English Literature <br> (beginnings to 1798) |
| EN-221 | English Literature (1798- <br> Present) |
| EN-240 | Survey of Postcolonial and <br> Transcultural Literature |
| EN-255 | Methods of Literary Study |
| Historically Marginalized Traditions |  |

Take one course from the following:

| EN-120 | Race in Comics |
| :--- | :--- |
| EN-132 | World Literature |
| EN-167 | Literature and Human Rights |
| EN-169 | Ethnic Literature in the U.S. |
| EN-172 | Women and Literature |
| EN-174 | Women Poets |
| EN-240 | Survey of Postcolonial and <br> Transcultural Literature |
| EN-328 | Narratives of U.S. <br> Immigration |
| EN-345 | American Women Writers |
| EN-347 | Studies in U.S. Ethnic <br> Literature |
| EN-348 | Postcolonial Women's <br> Writing |
| EN-370 | Antislavery Literature |

Choose four courses from the following. Two
must be at the 300-400 level.

| EN-120 | Race in Comics |
| :--- | :--- |
| EN-132 | World Literature |


| EN-360 | Shakespeare I |
| :--- | :--- |
| EN-362 | Shakespeare II |
| EN-364 | Elizabethan and Jacobean <br> Drama |
| EN-370 | Antislavery Literature |
| EN-380 | Milton |
| EN-390 | Irish Literary Revival |
| Total Credits |  |

## Narrative Studies of Health and Body Minor

Narratives of Health and Body Minor Requirements

| Code | Title | Credits |
| :---: | :---: | :---: |
| Core Required Course |  | 3 |
| EN-217 | Introduction to Narrative Studies of Health and Medicine |  |
| Elective Courses (5 courses-one must be at the 300 or 400 level) |  | 15 |
| NH-150 | The Short Story for Narratives of Health And Medicine |  |
| NH-252 | Technical Writing for Narratives of Health and Medicine |  |
| NH-257 | The Power of Memoir for Narratives of Health and Medicine |  |
| NH-260 | Creative Writing: Poetry I for Narratives of Health and Medicine |  |
| EN-190 | Special Readings in Literature (approved NHB topics) |  |
| EN-450 | Special Topics in English (approved NHB topics) |  |
| EN-475 | Internship in English (approved NHB topics) |  |
| Total Credits |  | 18 |

## Writing Minor

## Requirements for a Minor in Writing

18 credits of writing beyond EN-101, EN-102, or EN-250.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Requirements |  | (3 |
|  |  | credits) |
| Take one of the following courses: |  | 3 |
| J0-101 | Introduction to Journalism |  |
| EN-257 | The Power of Memoir |  |
| EN-258 | Creative Writing: Nonfiction |  |
| Electives |  | $\begin{array}{r} (15 \\ \text { credits) } \end{array}$ |
| Select 15 credits of writing courses offered by the department, including, but not limited to the following: |  | 15 |
| EN-165 | Oral Literature: the Art of Storytelling |  |
| EN-207 | The Writer's Life |  |
| EN-250 |  |  |
| EN-251 |  |  |
| EN-252 | Technical Writing |  |
| EN-253 | Business Communications |  |
| EN-254 | Critical Writing |  |
| EN-256 | Creative Writing: Fiction |  |
| EN-260 | Creative Writing: Poetry I |  |
| EN-262 | Creative Writing: Poetry II |  |
| EN-266 | Journalism: Practice and Techniques |  |
| EN-267 | Journalism: Advanced Newswriting |  |
| EN-268 | Journalism: Feature Writing |  |
| EN-269 |  |  |
| EN-270 | Journalism: Editing |  |
| EN-271 | Journalism Workshop |  |
| EN-272 | News Reporting and Writing |  |
| EN-275 | Sportswriting |  |
| EN-281 | Writing for Digital Environments |  |
| EN-322 | Community Writing |  |
| EN-341 | Advanced Practices in Writing |  |
| EN-351 |  |  |
| EN-352 | Practicum in Journalism |  |
| EN-353 | Narrative Journalism |  |
| EN-354 | Opinion Writing |  |
| EN-410 | Theories and Practices of Writing Consul |  |
| EN-411 | Theory and Teaching of Writing |  |
| EN-415 |  |  |
| J0-201 | Multimedia Journalism |  |

Students may choose to substitute any three credit English course for one of their elective writing courses. Other writing courses offered in other departments may be counted toward the minor with the permission of the Chair of the English Department.
Total Credits 18

Other writing courses offered in other departments may be counted toward the minor with the permission of the Chair of the English Department.
Each student must take at least one course
designated a professional writing course.

## History

## Department of History and Political Science

Our department explores the present and past through two distinct disciplines: History and Political Science. History is the study of the human past as it is constructed and interpreted with human artifacts, written evidence, and oral traditions. It requires empathy for people, respect for intelligent debate, and the skillful use of an evolving set of practices and tools. Political Science addresses questions about the organization and function of governments, public policies and political processes, systems, and political behavior. Political scientists use both humanistic and scientific perspectives and tools and a variety of methodological approaches to examine the processes, systems, and political dynamics of all countries and regions of the world. All History and Political Science courses emphasize critical reading, rigorous research, and strong oral and written communication skills. The History program encompasses a minor and a major, with a special track for future educators at the K-12 level, and minors in Public History and Middle East Studies. The department also offers a major and minor in Political Science, and minors in Pre-Law and Civic Engagement. History majors complete a capstone project through a seminar course, an independent senior thesis, or by being accepted into the fall American Antiquarian Society Seminar. The department supports the Upsilon Rho chapter of Phi Alpha Theta (the National History Honor Society) and is a member of the American Historical Association and the American Political Science Association.

- 4+1 Program in History and Political Science / Master of Public Administration and Policy (MPAP) (p. 399)
- 4+1 Program in History and Political Science / Master of Public Management (MPM) (p. 400)
- 4+1 Program in History and Political Science / MS in Nonprofit Management (p. 397)
- History Major (p. 401)
- History Major Track for History Educators (p. 403)
- History Minor (p. 403)
- Public History Minor (p. 403)


## Faculty

Nathan Angelo, Associate Professor (2016), B.A., Hofstra University; M.A., New York University and City University of New York; Ph.D., New School for Social Research

Erika Briesacher, Professor (2012), B.A., Illinois Wesleyan University; M.A., Southern Illinois University, Edwardsville; Ph.D., Kent State University

Anthony Dell'Aera, Associate Professor (2016), B.A., Trinity College; M.A., Ph.D. Brown University

Martin Fromm, Associate Professor (2013), B.A., Brown University; M.A., Stanford University; Ph.D., Columbia University

Michael Gesin, Professor (2007), B.A., Worcester State College; M.A., Ph.D., Brandeis University

Charlotte Haller, Department Chair, Professor (2004), B.A., Brown University; M.A., Ph.D., University of Wisconsin

Tona J. Hangen, Professor (2008), B.S., Massachusetts Institute of Technology; Ph.D., Brandeis University

Joshua D. Koenig, Assistant Professor (2022), B.A., M.A., Southern Illinois University Edwardsville; Ph.D., Western Michigan University

Tanya Mears, Associate Professor (2010), B.S., Tuskegee University; M.A., Ph.D. University of Massachusetts, Amherst

Alison K. Okuda, Associate Professor (2017), B.A., University of California; M.Phil., Ph.D., New York University

Noa Shaindlinger, Assistant Professor (2022), B.A., Tel Aviv University, Israel; M.A., Ph.D., University of Toronto, Canada

Robert W. Smith, Professor (2007), B.A., Syracuse University; M.A., Ph.D., College of William and Mary

Catriona Standfield, Assistant Professor (2020), B.A.,University of Adelaide; M.A., Ph.D., Syracuse University

## Courses

## HI-103 Connecting Ancient Worlds: World History to 1500

LASC Categories: GP, TLC
Surveys economic, social, political and intellectual developments of global societies and their interrelationship from ancient times to 1500 . Counts for Global/Thematic in the History major.
Fall and Spring and every year. 3 Credits

## HI-104 Age of Empires: World History 1500 to the Present

LASC Categories: GP, TLC
Surveys economic, social, political, and intellectual development of global societies world civilizations and their inter relationship from 1500 to the present. Counts for Global/Thematic in the History major. Fall and Spring and every year. 3 Credits

## HI-105 Modern World History

 LASC Categories: GP, TLCSurveys economic, social, political, and intellectual development of global societies and their interrelationship from 1914 to the present. Counts for Global/Thematic in the History major.
Fall and Spring and every year. 3 Credits

## HI-111 US History to 1877

LASC Categories: CON, USW
From colonization through the Civil War era. A study of politics, society, economy, diplomacy, and culture in that period. Counts for Europe/United States in the History major.
Fall and Spring and every year. 3 Credits

## HI-112 US History 1865 to the Present

LASC Categories: CON, USW
From the Civil War era to the present. Topics include politics, society, economy, diplomacy, and culture in modern America. Counts for Europe/United States in the History major.
Fall and Spring and every year. 3 Credits

## HI-140 We the People

LASC Categories: CON
This course provides historical perspectives on current issues, focusing upon the state and federal constitutions as living documents. Students will develop tools to understand the ways that laws reflect, limit, and shape society. Counts for Europe/ US within History major.
Spring only and every 2-3 years. 3 Credits

## HI-150 Special Topics

Special topics at the introductory level; especially appropriate for first- and second-year students. Geographic region or historical approach varies by course and instructor.
Other or on demand and other or on demand. 3 Credits

## HI-155 World History Through Film <br> LASC Categories: GP, DIV

This course introduces students to several important themes in world history through the medium of film. It will focus on issues of race, class, and gender in different countries during the 20th century up to the present. In addition, it will examine related issues such as colonialism, migration, diaspora, urbanization, family, food culture, music and dance, religion, resistance, genocide, and others. Students will learn how to use film as a historical source, as a product of the place and period in which it was created. It counts for the 100-level Global/Thematic category in the History major.
Alternating and every year. 3 Credits

## HI-181 History Explorations Cohort I

This is a one-credit course that is designed to support integrative learning and development of metacognitive skills for students considering teaching history and social studies at the K12 level in Massachusetts. It is the first of a three course sequence that is required for students in the Educators' Track in the History Major, but is open to all History majors interested in exploring social studies education as a career and deepening their history studies.
Other or on demand and every year. 1 Credit
HI-193 First Year Seminar History
LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Fall only and every year. 3 Credits
HI-200 The Historian's Craft
Prerequisites: one 100-level history course.
A methods course providing hands-on exploration of history as both a professional field and a scholarly discipline.
Fall and Spring and every year. 4 Credits

## HI-203 The United States Since 1945

LASC Categories: USW, WAC, DIV, DAC
Explains the history and culture of the United States since 1945. Counts for Europe/US in the History major.
Every 2-3 years. 3 Credits

## HI-204 History of Science and Technology LASC Categories: GP, TLC, WAC

Progress of science since the Enlightenment, including applied science or technology from the 19th century. Counts for Global/Thematic/ Methodological in the History major.
Every year. 3 Credits

## HI-205 Native America

LASC Categories: TLC, USW, DIV, DAC
This survey covers the broad sweep of Native American history and focuses on the encounter between American and European civilizations and how Native culture has adapted through the centuries. Counts for Europe/US in the History Major. Every 2-3 years. 3 Credits

## HI-206 A History of Warfare

An examination of the role of war in conflict resolution, great battles which changed history, and the impact of technology on war. Counts for Global/ Thematic/Methodological in the History major. Every 2-3 years. 3 Credits

## HI-207 American West: Myth and Reality

The historic development of the West, its impact on the American character, and a study of how myths became accepted "fact." Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-208 American Immigrant History

Survey of immigration. Topics such as old-world background, impact on the United States, nativism, cultural pluralism, religion, mobility, family and politics. Counts for Europe/United States in the History major.
Every year. 3 Credits

## HI-211 History of US Foreign Policy I

LASC Categories: USW
Colonial origins to the era of the Spanish American War. The sources and developments of United States foreign policy in that period. [Cross-listed with PO-211.]. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-212 History of US Foreign Policy II <br> LASC Categories: USW

From 1900 to recent times: United States foreign policy traditions and the challenges of great power status. [Cross-listed with PO-212.]. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-213 Colonial Latin America

The People of Latin America from Pre-Columbian societies to the wars for independence, focusing on race, sex and power. Counts for Africa/Latin America in the History major.
Every 2-3 years. 3 Credits

## HI-214 Modern Latin America <br> LASC Categories: TLC, GP, DAC

The people of Latin America from independence to the present, focusing on race, sex and power. Counts for Africa/Latin America in the History major. Every 2-3 years. 3 Credits

## HI-215 History of American Thought

LASC Categories: TLC, USW, DAC, WAC
Explores the history of ideas in the United States, including major intellectual movements, thinkers, and texts. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-216 Economic History of the United States

An introduction to United States economic development; particular attention will be paid to industrialization and the labor force. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-217 US Social History

LASC Categories: TLC, USW, WAC, DIV, DAC
Considers topics and approaches in the field of social history in the United States. Counts for Europe/US in History major. [Applicable to Women's, Gender, and Sexuality Studies Minor.]
Every 2-3 years. 3 Credits

## HI-218 US Constitutional History I

LASC Categories: CON, HBS, USW
The development of constitutional history to 1865. [Cross listed with PO-218.] Counts for Europe/United States in the History major,
Every 2-3 years. 3 Credits

## HI-219 US Constitutional History II <br> LASC Categories: CON, USW, HBS

The development of the United States constitution since 1865.[Cross listed with PO-219.] Counts for Europe/United States in the History major. Every 2-3 years. 3 Credits

## HI-220 American Military History

An overview of American military history from colonial times to the present. Students will develop a conceptual and methodological framework for studying the American military system and how it has changed over time and how it has shaped, and been shaped by, both U.S. and global history. Counts for Europe/United States in the History Major. Spring only and every 2-3 years. 3 Credits

## HI-221 African-American History I

The people of African descent from the emergence of the slave trade to the Civil War, focusing on race, gender, and power. Counts for Europe/United States in the History major.
Every year. 3 Credits

## HI-222 African-American History II

The people of African descent from the end of the Civil War through the twentieth century, focusing on race, class, gender, and power. Counts for Europe/ United States in the History major.
Every year. 3 Credits

## HI-223 History of France I

Domestic and foreign problems of nineteenth and twentieth century France. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-224 English History I

LASC Categories: TLC, WAC
English history from earliest settlement to the reign of Elizabeth I. Origins of the Common Law, Parliament, and English liberty. Counts for Europe/ United States in the History major.
Every 2-3 years. 3 Credits
HI-225 English History II
LASC Categories: TLC, WAC
English history through the English Revolution, the Industrial Revolution, the British Empire, the World
Wars, and decline. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-226 Latin American History Through Film

This course will explore how filmmakers have portrayed Latin American History in their movies. Counts for Africa/Latin America in the History major. Every 2-3 years. 3 Credits

## HI-227 American Popular Art and Architectural History <br> LASC Categories: CA, ICW, TLC

An introduction to and survey of popular architectural and artistic expression in American life from the point of initial European contact with Native American groups through the present. Focus on a variety of material and classifications of art and architecture, including high-style, vernacular, folk, popular, commercial, ethnic, and regionally-oriented materials. Counts for Europe/United States in the History major. Fall and Spring and every $2-3$ years. 3 Credits

HI-228 Currency, Commodities, and Crashes: Global Economic History, 1500-2000
LASC Categories: GP, HBS
This course explores economic ideas, events, and institutions in world history, from approximately the rise of modern banking through the Industrial Revolution and into the integration of the early 2000s. This course situates concepts such as labor, long-run/short-run, panics and depressions, capital, trade, political economy, colonialism, currency, and markets in global social and cultural contexts, considering not only economic reasons for the behavior of historical actors but also the importance of economic history (broadly understood) as part of an interdisciplinary approach to research. Counts for Global/Thematic/Methodological in the History major.
Other or on demand and other or on demand. 3
Credits
HI-230 Nicaragua, the US and the World
LASC Categories: DAC, TLC, USW
The course will examine the impact of globalization and imperialism on the lives of Nicaraguans at home and in their diasporic communities. Counts for Africa/Latin America in the History major.
Spring only and every year. 3 Credits

## HI-234 Russian History I

A study of major political, economic, social, intellectual and diplomatic currents in Russia, from the Kievan era to Stalin. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-235 Russian History II

A study of major political, economic, social, intellectual, and diplomatic currents in Russia, from the Kievan era to Stalin. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-236 Modern Far East History I

The cultural, political, and economic roots of modern East Asia, focusing on China, Japan, Korea and
Vietnam. Counts for Middle East/Asia in the History Major.
Every year. 3 Credits

## HI-237 Modern Far East History II <br> LASC Categories: GP

The transformation and re-invention of East Asian societies since World War II. Counts for Middle East/ Asia in the History major.
Every year. 3 Credits

## HI-241 English Constitutional History <br> LASC Categories: GP, HBS

The development of English Constitution from the Magna Carta through revolution, supremacy of Parliament, reform acts, entry into European Union, and devolution. [Cross-listed with PO-241.] Counts for Europe/United States in the History major. Every 2-3 years. 3 Credits

## HI-243 Introduction to Public History

Introduction to the field, theory, and practice of Public History and associated institutions such as museums, archives, and historical sites. Counts for Global/Thematic/Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-245 History of Modern Germany I

The origins and growth of Brandenburg-Prussia; their impact on the rest of Germany from the foundation of the Holy Roman Empire to the emergence of the Second Reich in 1871. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-246 History of Modern Germany II

German economic and political crises from 1870 to the present. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-247 Central America and the Caribbean

This survey examines the political, cultural and social history of Central America and the Caribbean from pre-Columbian times to the present with an emphasis on the 20th century. Counts for Africa/Latin America in the History major.
Every 2-3 years. 3 Credits
HI-248 Seminar on Globalization \& Human Rights LASC Categories: USW, GP, DAC
A.I.D. program participants in their sophomore year will explore globalization and human rights and issues of personal growth and academic development. Counts for Global/Thematic/ Methodological in the History major. Every 2-3 years. 3 Credits

## HI-250 Special Topics in History

Special topics at the introductory or intermediate level; especially appropriate for first and second-year students.
Every year. 3 Credits
HI-251 Roots of China's Rise: Reform, Revolution and Reinvention
LASC Categories: TLC, GP
Examines the modern historical roots of China's rise as an international power, from the decline of its last imperial dynasty through the tumults of 20th century social movements to its recent emergence as a global economic power. Counts for Middle East/ Asia in the History major.
Every 2-3 years. 3 Credits

## HI-255 Faculty-Led Study Abroad: China Cultural Immersion

LASC Categories: TLC, GP
Experientially based immersion in the culture and society of China, consisting of language study, visits to historical and cultural sites, cultural immersion activities in local life, and the opportunity to engage with Chinese students. Counts for Middle East/Asia in the History major.
Every 2-3 years. 3 Credits

## HI-257 Political Terrorism in Historical Perspective

A comparative approach to the terrorist movements of the nineteenth and twentieth centuries, concentrating on the European groups. Counts for Global/Thematic/Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-258 Russia Since the Stalin Era

An analysis of the major political, economic and diplomatic developments in the (former) Soviet Union since the death of Stalin; the formation of the Commonwealth of Independent States. Counts for Europe/United States in the History major. Every 2-3 years. 3 Credits

## HI-261 Middle East History I <br> LASC Categories: TLC, GP

The rise and expansion of Islam; the Caliphate; Muslim religion, civilization and its impact on the West, decline of medieval Islam. Counts for Middle East/Asia in History major.
Every 2-3 years. 3 Credits

## HI-262 Middle East History Ii: the Ottoman Empire, 1289-1920

LASC Categories: GP, TLC, WAC
The Ottoman Empire: expansion, institutions, impact on Europe, decline of the Empire. Counts for Middle East/Asia in History major.
Every 2-3 years. 3 Credits

## HI-263 The Modern Middle East, 1900-present LASC Categories: GP, DIV

This course is an invitation to reconsider our preconceived notions about the modern Middle East, by way of introduction to the rich history of the region since 1900. Students will learn about the legacies of the Pan-Arabism in the era of decolonization, the politics of oil in the Gulf, and the rise of authoritarian states (Syria, Iraq). We will focus on histories of violence and the struggles of stateless peoples (Palestinians, Kurds, Armenians) and consider the dynamics of popular uprisings, revolutions and rebellions, both failed and successful ones. Counts for Middle East/Asia in the History major.
Every 2-3 years. 3 Credits

## HI-267 US-Latin American Relations <br> LASC Categories: USW, WAC, DAC

This course will analyze the political, economic, social, and cultural impact of the interactions between and among the governments and people of the US and Latin America. Counts for Africa/Latin America in the History major.
Every year. 3 Credits

## HI-270 History of Modern Italy

Study of modern Italy from 1789 to the present. Every 2-3 years. 3 Credits

HI-274 The History of Gender and Sexuality in America
LASC Categories: TLC, USW, DIV, DAC
The history of sexuality and gender in America. Includes investigations of lesbian and gay histories; transgender histories; attempts to regulate and define sexuality; practices of birth control; the intersections of race, class, and gender; the social construction of gender; and the challenges of doing hidden histories. Counts for Europe/US in the History major. [Applicable to the Women's, Gender, and Sexuality Studies Minor.]
Every 2-3 years. 3 Credits

## HI-276 Jewish History I

This course constitutes a systematic introduction to the Biblical history of the Jewish people down to the 12th century. Counts for Global/Thematic/ Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-277 Jewish History II

History of the Jewish people from Medieval period to early Modernity. Counts for Global/Thematic/ Methodological in the History major. Every 2-3 years. 3 Credits

## HI-278 African History Before 1800

LASC Categories: GP, TLC, DAC, DIV
An introduction to the history of societies and cultures of Africa up to 1800 . We will consider such topics as Nubian queens in Egypt, the diffusion of Bantu languages, transcontinental trade networks, the spread of Islam and Christianity, the rise of West African empires, and the transatlantic slave trade. Counts for Africa/Latin America in the History major. Alternating and every 2-3 years. 3 Credits

## HI-279 African History Since 1800

LASC Categories: GP, TLC, DAC, DIV
An introduction to the history of groups and countries within Africa from 1800 to the early 21 st century. Like the rest of the world, Africa was also changing rapidly during these centuries. Topics include the extraction of wealth, European colonial rule, pan-Africanism, independence and development during the Cold War, and Africa today. Counts for Africa/Latin America in the History major.
Alternating and every 2-3 years. 3 Credits

## HI-280 Introduction to African Diaspora History LASC Categories: TLC, GP, DAC

Students will learn about the development of the African diaspora and how it has shaped the world since antiquity. We will consider the movements, experiences, and exploits of ordinary people and celebrated figures of African descent through such topics as imperial expansion; slavery, resistance, and freedom; nationalism and the civil rights movement; and current global issues. Counts for Global/ Thematic/Methodological in the History major. Alternating and every $2-3$ years. 3 Credits

## HI-281 History of France II

Social, cultural, and diplomatic developments in France from 1750 to the present. Counts for Europe/ United States in the History major.
Every 2-3 years. 3 Credits

## HI-282 History Educators Cohort II

Prerequisites: HI-181.
This is a one-credit course that is designed to support integrative learning and development of metacognitive skills for students considering teaching history and social studies at the K12 level in Massachusetts. Students will work with a cohort of future History educators to develop their own pedagogical or educational practice in history, and to support each other. It is the second of a three course sequence that is required for students in the Educators' Track in the History Major, but is open to all History majors interested in exploring social studies as a career and deepening their history studies.

Other or on demand and every year. 1 Credit

## HI-285 History of Baseball

LASC Categories: USW, TLC, DAC
History of baseball from the first bat-and-ball games to the present. Counts for Global/Thematic/ Methodological in the History major.
Every 2-3 years. 3 Credits
HI-290 Health and Healing in America LASC Categories: ICW, TLC, WAC
Explores topics in the history of medicine, health, disease, and healing in US history. Counts for Europe/ United States in the History major.
Every 2-3 years. 3 Credits

## HI-300 The Early National Period of the US: 1783-1829

LASC Categories: USW, TLC
Prerequisites: $\mathrm{HI}-111$
The Confederation, Constitution, the emergence of political parties, and the rise of American nationality. Counts for Europe/United States in the History major. Every 2-3 years. 3 Credits

## HI-301 Research and Writing of History

Prerequisites: HI-200 Historian's Craft
The history of history. A study of historiography, theory of history, and practice of historical research and writing. Continues from Historian's Craft, and lays the foundation for capstone-level work. Other or on demand and every year. 4 Credits

## HI-302 Medieval History

Prerequisites: $\mathrm{HI}-103$
Cultural, social and diplomatic European history of the Middle Ages from fall of the Roman Empire until the rise of the Renaissance. Counts for Europe/ United States in the History major.
Every 2-3 years. 3 Credits

## HI-303 Colonial History I

Prerequisites: $\mathrm{HI}-111$ and $\mathrm{HI}-112$
European background and reasons for American colonization, intercolonial rivalries, formation of the 17th century English colonies. British colonial policy to 1689. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-304 Colonial History II

Establishment of Georgia, French and Indian Wars, 18th century colonial civilization, causes of the American Revolution, the Revolution to 1783. Counts for Europe/United States in the History major. Every 2-3 years. 3 Credits

## HI-305 Ancient History

Prerequisites: $\mathrm{HI}-103$
The history, culture and politics of ancient Greece and Rome. Counts for Global/Thematic/Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-306 Renaissance and Reformation <br> Prerequisites: $\mathrm{HI}-103$

Intellectual and cultural history of Europe from the middle of the thirteenth to the middle of the sixteenth century. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-308 Europe in the Age of Revolution and Nationalism: 1789-1870

Prerequisites: $\mathrm{HI}-103$ or $\mathrm{HI}-104$
The French Revolution, Napoleon, Congress of Vienna; nationalism, liberalism, socialism; Second French Empire; German and Italian unifications. Counts for Europe/United States in the History major. Every 2-3 years. 3 Credits

## HI-309 Diplomatic History of Modern Europe

The foreign policies of the major European nations from 1870 to the present. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-310 Massachusetts History

Prerequisites: $\mathrm{HI}-111$ or $\mathrm{HI}-112$
A survey of Massachusetts history from its colonial origins to the present era, including the social, economic, political, constitutional development of state history and culture. Counts for Europe/United States in the History major.
Every year. 3 Credits

## HI-312 20th Century Europe I

Prerequisites: $\mathrm{HI}-103$ or $\mathrm{HI}-104$
The politics and economics of World War I; the pattern of restlessness between the wars in the rise of dictatorship in Germany, Italy, and Spain; the regimentation of economic control. Counts for Europe/United States in History major.
Every 2-3 years. 3 Credits

## HI-313 20th Century Europe II

Prerequisites: $\mathrm{HI}-103$ or $\mathrm{HI}-104$
Politics and diplomacy of World War II; the dynamics of the rebirth of Europe since VE Day. The effects of total war upon Europe. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-314 20th Century Middle East History

LASC Categories: GP, TLC, DAC
Prerequisites: $\mathrm{HI}-103$ or $\mathrm{HI}-104$ or $\mathrm{HI}-105$ or $\mathrm{HI}-111$ or $\mathrm{HI}-112$ or $\mathrm{HI}-261$
The Young Turk Revolution, division of Ottoman Empire in World War I; rise of new states; the ArabIsraeli conflict. Counts for Middle East/Asia in the History major.
Every 2-3 years. 3 Credits

## HI-318 Ethnic Identities in China

LASC Categories: TLC, GP, DAC, WAC
Prerequisites: EN-102 or EN-202
This course examines the modern history of ethnic identity formation in China and its frontiers and borderlands. It explores how China's own history of territorial expansion and political subjugation driven by ethnic minority rule shaped Chinese concepts of ethnic unity and diversity. The intersecting trajectories of European imperialism and Chinese ethnic nationalism will also be discussed, with the goal of situating the construction of ethnic categorization in China to global processes of colonialism and nationalism. Counts for Middle East/
Asia in the History major.
Alternating and every 2-3 years. 3 Credits

## HI-319 Material Culture

Focuses on the way scholars use and analyze objects in historical, social and cultural content. Counts for Global/Thematic/Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-320 Citizen Nation

LASC Categories: CON, USW, WAC, DIV, DAC
Prerequisites: EN-102 or EN-202.
Explores the history and meaning of citizenship in the United States, including discrimination, rights struggles and changing citizenship criteria. Counts for Europe/US in History major. [Cross-listed with PO-320.]
Fall only and every 2-3 years. 3 Credits

## HI-321 Museums and Society

Course on the history of museums and their development as a major space for public history and memory. Counts for Global/Thematic/Methodological for the History major.
Every 2-3 years. 3 Credits

## HI-322 Nationalism

LASC Categories: GP, HBS, DAC
Examines the theories of nationalism, the development of the modern nation-state, and its effect on global politics. [Cross-listed with PO-322.] Counts for Global/Thematic/Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-323 Empire

Prerequisites: $\mathrm{HI}-103$ and $\mathrm{HI}-104$
Theories and models of colonization, the reaction of colonized peoples, and the way historians analyze imperialism from 1400 to 1920's. [Cross-listed with PO-323.] Counts for Global/Thematic/Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-332 American Environmental History <br> LASC Categories: ICW, NSP <br> Prerequisites: EN-102.

This course explores the impact of environmental conditions on American historical and cultural development and examines changing attitudes toward environmental issues. Environmental history is an interdisciplinary field that focuses on the physical, material, cultural, intellectual, governmental, and economic processes, which helped transform and shape our environment and society in different places and times. This course explores American history through an environmental lens. It examines America's interaction with nature the environment, and environmental science since the arrival of Europeans in the fifteenth century. Counts for Europe/United States in the History major. Fall and Spring and every 2-3 years. 3 Credits

## HI-333 Women in Latin America

Prerequisites: $\mathrm{HI}-213 \mathrm{HI}-214 \mathrm{HI}-226$ or $\mathrm{HI}-247$
Examines the roles of women in diverse societies including Mexico, Brazil and Caribbean nations. Emphasis on the modern period. Counts for Africa/ Latin America in the History major.
Every 2-3 years. 3 Credits
HI-334 Environmental Crisis and Management in China
LASC Categories: HBS, NSP
This course will examine the history of the relationship between Chinese society and culture, economic development, state power, scientific theories, and the environment. Recent media reports have highlighted a worsening environmental crisis in China while at the same time reporting on China as a new leader in the development of alternative energy sources. Government, domestic and international non- governmental organizations, urban and rural activists, scientific studies and discourses, and evolving political ideologies will be addressed. Counts for Middle East/Asia in the History major. Every 2-3 years. 3 Credits

## HI-335 Imperial Crossroads of Modern East Asia LASC Categories: TLC, GP

Examines East Asian history at the crossroads of Chinese, Japanese, Russian and Korean colonial and nationalist movements in a region called Manchuria, presently China's northeast border with Russia, Korea, and Mongolia. Counts for Middle East/Asia within the History major.
Every 2-3 years. 3 Credits

## HI-336 Race, Sex, and Power in the American South LASC Categories: DIV <br> Prerequisites: EN-102.

This course covers the history of the American South from its colonial beginnings through the Civil Rights era. We will dissect the tangled history of race and sex in the region from multiple perspectives. Throughout, we will highlight the ways that viewing history from the margins creates an expansive perspective for revealing the structures of power and the functioning of the law in the South. We will question stereotypes of regional distinctiveness and backwardness and critically assess the relationship of the South to the nation. Counts for Europe/United States in the History major.
Alternating and every 2-3 years. 3 Credits

## HI-337 Travels in Asia

LASC Categories: TLC, GP
Travels in Asia examines modern East Asian history through the lens of Chinese, Japanese, European, and American travel narratives from the seventeenth through the twentieth centuries. Counts for Middle East/Asia in the History major.
Every 2-3 years. 3 Credits

## HI-342 History of Early Modern Europe

Prerequisites: EN-102.
This course analyzes political, economic, social, intellectual, and cultural developments in Europe in global context from approximately 1450 to the beginning of the revolutionary period (approximately 1780). This course includes major events and phenomena such as the impact of the Reformation, the Thirty Years' War, the Enlightenment, colonization, and the beginning of the Industrial Revolution. This course counts for Europe/United States in the History major.
Other or on demand and other or on demand. 3
Credits

## HI-345 Religions in America

LASC Categories: TLC, USW, WAC, DIV, DAC
Prerequisites: HI-200 and EN-102 or EN-202.
Considers topics in American religious history and explores religious diversity in the past and in contemporary United States. Counts for Europe/US in History major.
Every 2-3 years. 3 Credits

## HI-349 America on Film

Prerequisites: $\mathrm{HI}-111$ or $\mathrm{HI}-112$
This course examines the origins and nature of the US film industry and how it uses and abuses history from 1893 to the present. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-351 Age of Jackson

LASC Categories: USW, TLC
Prerequisites: $\mathrm{HI}-111$ or $\mathrm{HI}-112$
Political, social, economic, and intellectual developments in the second quarter of the nineteenth century. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-352 Civil War and Reconstruction

Prerequisites: one History course.
The causes, consequences, and meaning of the Civil War and Reconstruction, as viewed from multiple perspectives. Social, political, military and cultural history will all be explored to develop a rich and multilayered understanding of questions of violence and division, emancipation, voting rights, military service, terrorism, gendered violence, and the draft, among others. Counts for Europe/US in the History major. Every 2-3 years. 3 Credits

HI-353 The Age of Reform: US History, 1877-1920
Prerequisites: one History course.
An analysis of the transformation of America, including reform response to the Gilded Age's industrialization, urbanization and immigration patterns. Counts for Europe/United States in the History major.
Every 2-3 years. 3 Credits

## HI-356 The History of the Cold War LASC Categories: USW

Prerequisites: $\mathrm{HI}-104$ or $\mathrm{HI}-105$ or $\mathrm{HI}-112$
The origins of the Cold War, American, Soviet and Chinese foreign policies, arms control negotiations and future prospects. Counts for Global/Thematic/ Methodological in the History major.
Every 2-3 years. 3 Credits

HI-366 American Revolutionary Period
Prerequisites: one History course.
The causes, consequences, and meaning of the American Revolution, as viewed from multiple perspectives. Social, political, military, and cultural history will all be explored to develop a rich and multi-layered understanding of questions of representation, taxation, slavery and freedom, Indigenous experiences, military strategy, popular mobilization, and political ideology, among others. Counts for Europe/US in the History major. Every 2-3 years. 3 Credits
HI-373 African Immigration in the 20th Century LASC Categories: GP, TLC, DAC
Prerequisites: Writing II
Why do we commonly hear about a "brain drain" in African countries or human rights violations of refugees entering Europe? This course examines how these current global issues developed through the history of immigration from the African continent to North America and Europe during the 20th century. Counts for Global/Thematic/Methodological in the History major.
Other or on demand and every 2-3 years. 3 Credits

## HI-375 Popular Music and Performance in Modern Africa

LASC Categories: CA, TLC, DAC
Prerequisites: Writing II
This course looks at changes in popular music in Africa since the late 19th century. Instead of studying the practice of traditional or art music in Africa, students will gain a stronger understanding of the significance of global connections between Africa and other parts of the world by examining the performance of popular music in a variety of spaces, including streets, nightclubs, and ceremonies. Counts for Africa/Latin America in the History major.
Other or on demand and every 2-3 years. 3 Credits

## HI-381 The First World War

The origins, course, and consequences of the First World War. Counts for Global/Thematic/ Methodological in the History major.
Every 2-3 years. 3 Credits

## HI-383 History Educators Cohort III

Prerequisites: HI-282.
This is a one-credit course designed to support integrative learning and development of metacognitive skills for students considering teaching history and social studies at the K12 level in Massachusetts. Students will work with a cohort of future History educators to practice professional development, to analyze historiography for teaching, to understand and apply state standards for educators to the study of history, to evaluate their own pedagogical or educational practice, and to support each other. This is the third and final course of a three course sequence that is required for students in the Educators' Track in the History Major. Other or on demand and every year. 1 Credit

## HI-390 World History for Educators

LASC Categories: TLC, GP
Prerequisites: $\mathrm{HI}-200$
This course examines history through global perspectives for future educators. It deals with pedagogical approaches to and frameworks for teaching on major themes running through global history from premodern to contemporary periods. The course investigates broad themes in global history ranging across technological and scientific discoveries, shifting forces of political power and imperial formation, and the evolution of ideas about culture and society. Counts for Global/Thematic/ Methodological in the History major. Fall and Spring and every year. 4 Credits

## HI-391 U.S. History for Educators

LASC Categories: USW
Prerequisites: HI-200 Historian's Craft
This course examines United States history while providing in-depth training and practice in approaching this content area as future educators. It deals with major themes running through US history from its early origins to contemporary periods. The course investigates broad themes in US history ranging across the processes of colonization and imperialism, economic development, slavery, political development, cultural change, and social movements. Counts for Europe/United States in the History major. Alternating and every year. 4 Credits

## HI-400 Independent Study in History

Special topics for advanced research and study under the guidance of a faculty member. Consent of instructor.
Fall and Spring and every year. 1-6 Credits

## HI-408 Directed Study: History

Directed study offers students who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## HI-420 Seminar in Constitutional History

Prerequisites: one of the following: $\mathrm{HI}-218, \mathrm{PO}-218$, HI-219, PO-219, HI-241, PO-241.
This course provides an in-depth exploration of constitutional development. Possible topics may include (but are not limited to) Athenian democracy, the constitutional structure of the Roman Republic, the Magna Carta, the Glorious Revolution, the debate between the Federalists and Anti-Federalists, the ratification of the United States Constitution, and the constitutions of emergent democracies in the modern world. Each student will be required to produce an original paper of significant scholarship. Counts for Europe/United States in the History major. Alternating and every 2-3 years. 3 Credits

## HI-440 Internship in History

Internships in museums, archives, government agencies, etc. at beginning professional level in cooperating institutions, under joint supervision of agency and faculty.
Fall and Spring and every year. 6-12 Credits

## HI-445 Public History Practicum

Prerequisites: HI 243 (Introduction to Public History) and 9 credits in the Public History minor
The Public History Practicum is designed to allow students to apply the concepts they have learned in courses progressing to a Public History minor. In this course, students will create, produce, or mount an exhibit, event, or project showcasing their understanding of Public History concepts, methods, and approaches. This project can then be incorporated into a portfolio of students' work in the Public History minor.
Other or on demand and other or on demand. 3 Credits

## HI-450 Special Topics in History

Advanced special topics in history; course may be taught as an upper level seminar.
Other or on demand. 3 Credits

## HI-460 Senior Research Seminar in History LASC Categories: WAC, CAP

Prerequisites: any two 100-level History courses and HI-200
Capstone research, writing and portfolio seminar for seniors in the history major; students produce a substantive original research paper.
Fall and Spring and every year. 4 Credits

## HI-465 American Antiquarian Society Seminar

 LASC Categories: CAPPrerequisites: HI-200 or Permission of Instructor The American Antiquarian Society sponsors a prestigious annual seminar each fall for a select group of undergraduates from Worcester colleges and universities; participants produce a substantial original research paper. The topic and theme varies year to year, guided by a visiting scholar at the AAS. Suitable for upper-level undergraduates who can work independently and have strong analytical and writing skills. Usually 2 slots are reserved for WSU students through a competitive application process. Fall only and every year. 4 Credits

## HI-470 Senior Thesis in History <br> LASC Categories: CAP, WAC

Prerequisites: any two 100-level History courses and HI-200.
History major capstone option for students who intend to write a senior thesis in history.
Fall and Spring and every year. 4 Credits

## Program Learning Outcomes

- Students will recall and explain historical events and facts of significance to their coursework, being able to set them in chronological order.
- Students will have a working sense of how history unfolded.
- Students will set historical facts/events in broader context. They will have the "flavor of an era" and be able to connect facts together.
- Students will experience history as a flow, not as separate discrete "bits" of information.
- Students will identify primary and secondary sources, and understand the scholarly uses of each.
- Students can analyze a given source using appropriate questions, methods and techniques.
- Students will gain information literacy with respect to both printed and online sources of historical information.
- Students will frame questions for historical research and conduct a program of research inquiry, demonstrating strong and independent research skills.
- Students will create original works of historical scholarship.
- Students will reflect on their own learning process and become self-reliant and independent learners.


## 4+1 Program in History and Political Science / MS in Nonprofit Management

Students enrolled in History or Political Science (majors and minors) may apply for the joint 4+1 program with the Master of Science in Non-Profit Management (NPM). The following are the eligibility requirements:

1. Applicants must have completed 90 undergraduate credits.
2. Applicants must have a minimum 3.25 GPA in their majors
3. Applicants must have an overall minimum 3.0 GPA
4. Applicants must have completed an undergraduate internship, independent study or capstone project related to a nonprofit organization
5. Two letters of recommendation

In order to complete the joint degree, students take 9-11 graduate credits, which count both in their undergraduate program and in the master's in nonprofit management. The graduate credits are taken in place of elective undergraduate credits. Students get advising from both the graduate coordinator and their undergraduate advisor. Admission is on a rolling basis and applicants may start their program of study in any semester.
$\left.\begin{array}{llr}\text { Code } & \text { Title } & \begin{array}{r}\text { Credits }\end{array} \\ \text { MS in Nonprofit Management } & (36 \\ \text { credits) }\end{array}\right\}$

| NM-942 | Organizational Theory | 3 |
| :---: | :---: | :---: |
| NM-945 | Financial Management for Non-Profit Organizations | 3 |
| NM-949 | Strategic Leadership and Planning | 3 |
| NM-951 | Grant Writing | 4 |
| NM-980 | Thesis I | 1 |
| NM-981 | Thesis II | 4 |
| NM-990 | Action Research | 3 |
| NM-993 | Marketing and Resource Development | 3 |
| Two (2) ELECTIVES required |  | 6 |
| Total Cre |  | 36 |
| Code | Title | Credits |
| Master of Public Administration and Policy |  | $\begin{array}{r} (36 \\ \text { credits) } \end{array}$ |
| CORE COURSES |  |  |
| PA-901 | Policy Analysis | 3 |
| PA-903 | Economics for Policy Analysis | 3 |
| PA-934 | Ethics \& Management of Human Resources | 3 |
| PA-942 | Organizational Theory | 3 |
| PA-945 | Public Budgeting \& Financial Management | 3 |
| PA-949 | Strategic Leadership \& Planning for Public Organizations | 3 |
| PA-951 | Negotiation \& Conflict Resolution for Public Organizations | 3 |
| PA-980 | Capstone Fieldwork I for Public Administration \& Policy | 2 |
| PA-981 | Capstone Fieldwork II for Public Administration and Policy | 4 |
| PA-990 | Analysis and Interpretation of Quantitative Data for Public Policy | 3 |
| Two (2) ELECTIVES required |  | 6 |
| Total Cre |  | 36 |
| Code | Title | Credits |
| Master of Public Management |  | (36 |
|  |  | credits) |
| CORE COURSES |  |  |
| PM-901 | Project Management for Public Organizations | 3 |



Graduate core courses will count as core classes in the graduate program and electives in the student's undergraduate program. Graduate electives will count as electives in both the graduate and undergraduate programs

MS in Nonprofit Management - A student may take any three of the following core courses and any courses offered as graduate electives: NM-901, NM-903, NM-934, NM-942, NM-945, NM-949, NM-951, NM-993

Master of Public Administration and Policy (MPAP) - A student may take any three of the following core courses and any courses offered as graduate electives: PA-901, PA-903, PA-934, PA-942, PA-945, PA-949, PA-951,

Master of Public Management (MPM) - A student may take any three of the following core courses and any courses offered as graduate electives: PM-901, PM-903, PM-934, PM-942, PM-945, PM-949, PM-951

## 4+1 Program in History and Political Science / Master of Public Administration and Policy (MPAP)

Students enrolled in History or Political Science (majors and minors) may apply for the joint 4+1 program with the Master of Public Management (MPM). The following are the eligibility requirements:

1. Applicants must have completed 90 undergraduate credits.
2. Applicants must have a minimum 3.25 GPA in their majors
3. Applicants must have an overall minimum 3.0 GPA
4. Two letters of recommendation

Students are encouraged to take introductory courses in political science, statistics and economics before graduating from their undergraduate programs since these courses are prerequisites for full matriculation into the MPAP. A course in financial accounting is also highly recommended. Students achieve matriculation only after they obtain their undergraduate degree. The prerequisite requirements must be completed by then.

In order to complete the joint degree, students take 9-11 graduate credits, which count both in their undergraduate program and in the MPAP. The graduate credits are taken in place of elective undergraduate credits. Students get advising from both the graduate coordinator and their undergraduate advisor. Admission is on a rolling basis and applicants may start their program of study in any semester.

| Code | Title | Credits |
| :---: | :---: | :---: |
| MS in Nonprofit Management |  | (36 |
|  |  | credits) |
| CORE COURSES |  |  |
| NM-901 | The Nonprofit World: NGOs, the State \& Civil Society | 3 |
| NM-934 | Ethics and Management of Human Resources | 3 |
| NM-942 | Organizational Theory | 3 |
| NM-945 | Financial Management for Non-Profit Organizations | 3 |


| NM-949 | Strategic Leadership and <br> Planning | 3 |
| :--- | :--- | :--- |
| NM-951 | Grant Writing | 4 |
| NM-980 | Thesis I | 1 |
| NM-981 | Thesis II | 4 |
| NM-990 | Action Research | 3 |
| NM-993 | Marketing and Resource | 3 |
|  | Development |  |

Two (2) ELECTIVES required 6

Total Credits 36

| Code $\quad$ Title | Credits |
| :--- | ---: | ---: |
| Master of Public Administration and Polcy | $(36$ |
|  | credits $)$ |


| CORE COURSES |  | 3 |
| :--- | :--- | :--- |
| PA-901 | Policy Analysis | 3 |
| PA-903 | Economics for Policy <br> Analysis | 3 |
| PA-934 | Ethics \& Management of <br> Human Resources |  |


| PA-942 | Organizational Theory | 3 |
| :--- | :--- | ---: |
| PA-945 | Public Budgeting \& Financial <br> Management | 3 |
| PA-949 | Strategic Leadership <br> \& Planning for Public <br> Organizations | 3 |
|  | Negotiation \& Conflict | 3 |

Resolution for Public
Organizations

| PA-980 | Capstone Fieldwork I for <br>  <br> Policy | 2 |
| :--- | :--- | ---: |
| PA-981 | Capstone Fieldwork II for <br> Public Administration and | 4 |
| PA-990 | Policy |  |
|  | Analysis and Interpretation <br> of Quantitative Data for <br> Public Policy | 3 |

Two (2) ELECTIVES required 6
Total Credits 36
Code Title Credits

Master of Public Management (36 credits)
CORE COURSES

| PM-901 | Project Management for <br> Public Organizations | 3 |
| :--- | :--- | :--- |
| PM-903 | Economics for Policy <br> Analysis | 3 |


| PM-934 | Ethics \& Management of Human Resources | 3 |
| :---: | :---: | :---: |
| PM-942 | Organizational Theory | 3 |
| PM-945 | Financial Management for Public Organizations | 3 |
| PM-949 | Strategic Leadership \& Planning for Public Organizations | 3 |
| PM-951 | Negotiation \& Conflict Resolution for Public Organizations | 3 |
| PM-980 | Management Project Fieldwork I for Public Management | 2 |
| PM-981 | Management Project Fieldwork II for Public Management | 4 |
| PM-990 | Action Research | 3 |
| Two (2) ELECTIVES required |  | 6 |
| Total Credits |  | 36 |

## 4+1 Students

Graduate core courses will count as core classes in the graduate program and electives in the student's undergraduate program. Graduate electives will count as electives in both the graduate and undergraduate programs

MS in Nonprofit Management - A student may take any three of the following core courses and any courses offered as graduate electives: NM-901, NM-903, NM-934, NM-942, NM-945, NM-949, NM-951, NM-993

Master of Public Administration and Policy (MPAP)

- A student may take any three of the following core courses and any courses offered as graduate electives: PA-901, PA-903, PA-934, PA-942, PA-945, PA-949, PA-951

Master of Public Management (MPM) - A student may take any three of the following core courses and any courses offered as graduate electives: PM-901, PM-903, PM-934, PM-942, PM-945, PM-949, PM-951

## 4+1 Program in History and Political Science / Master of Public Management (MPM)

Students enrolled in History or Political Science (majors and minors) may apply for the joint 4+1 program with the Master of Public Management (MPM). The following are the eligibility requirements:

1. Applicants must have completed 90 undergraduate credits.
2. Applicants must have a minimum 3.25 GPA in their majors
3. Applicants must have an overall minimum 3.0 GPA
4. Two letters of recommendation

Students are encouraged to take introductory courses in political science, management and economics before graduating from their undergraduate programs since these courses are prerequisites for full matriculation into the MPM. A course in financial accounting is also highly recommended.Students achieve matriculation only after they obtain their undergraduate degree. The prerequisite requirements must be completed by then.

In order to complete the joint degree, students take 9-11 graduate credits, which count both in their undergraduate program and in the MPM. The graduate credits are taken in place of elective undergraduate credits. Students get advising from both the graduate coordinator and their undergraduate advisor. Admission is on a rolling basis and applicants may start their program of study in any semester.

| Code | Title | Credits |
| :---: | :---: | :---: |
| MS in Nonprofit Management |  | (36 |
|  |  | credits) |
| CORE COURSES |  |  |
| NM-901 | The Nonprofit World: NGOs, the State \& Civil Society | 3 |
| NM-934 | Ethics and Management of Human Resources | 3 |
| NM-942 | Organizational Theory | 3 |
| NM-945 | Financial Management for Non-Profit Organizations | 3 |
| NM-949 | Strategic Leadership and Planning | 3 |


| NM-951 | Grant Writing | 4 | PM-945 | Financial Management for Public Organizations |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| NM-980 | Thesis I | 1 |  |  |  |
| NM-981 | Thesis II | 4 | PM-949 | Strategic Leadership | 3 |
| NM-990 | Action Research | 3 |  | \& Planning for Public Organizations |  |
| NM-993 | Marketing and Resource Development | 3 | PM-951 | Negotiation \& Conflict | 3 |
| Two (2) ELECTIVES required |  | 6 |  | Organizations |  |
| Total Credits |  | 36 | PM-980 | Management Project Fieldwork I for Public | 2 |
| Code | Title | Credits |  | Management |  |
| Master of Public Administration and Policy |  | $\begin{array}{r} (36 \\ \text { credits) } \end{array}$ | PM-981 | Management Project Fieldwork II for Public | 4 |
| CORE COURSES |  |  |  | Management |  |
| PA-901 | Policy Analysis | 3 | PM-990 | Action Research | 3 |
| PA-903 | Economics for Policy Analysis | 3 | Two (2) ELECTIVES required |  | 6 |
|  |  |  | Total Credits |  | 36 |
| PA-934 | Human Resources |  | 4+1 Students |  |  |
| PA-942 | Organizational Theory | 3 | Graduate core courses will count as core classes in the graduate program and electives in the student's undergraduate program. Graduate electives will count as electives in both the graduate and undergraduate programs |  |  |
| PA-945 | Public Budgeting \& Financial Management | 3 |  |  |  |  |  |  |
| PA-949 | Strategic Leadership \& Planning for Public Organizations | 3 |  |  |  |  |  |  |
| PA-951 | Negotiation \& Conflict Resolution for Public Organizations | 3 | MS in Nonprofit Management - A student may take any three of the following core courses and any |  |  |
| PA-980 | Capstone Fieldwork I for Public Administration \& Policy | 2 | NM-903, NM-934, NM-942, NM-945, NM-949, NM-951, NM-993 |  |  |
| PA-981 | Capstone Fieldwork II for Public Administration and Policy | 4 | - A student may take any three of the following core courses and any courses offered as graduate |  |  |
| PA-990 | Analysis and Interpretation of Quantitative Data for Public Policy | 3 | electives: PA-901, PA-903, PA-934, PA-942, PA-945, PA-949, PA-951 |  |  |
| Two (2) ELECTIVES required |  | 6 | Master of Public Management (MPM) - A student |  |  |
| Total Cre | Title | [ 36 | may take any three of the following core courses and any courses offered as graduate electives: PM-901, PM-903, PM-934, PM-942, PM-945, PM-949, PM-951 |  |  |
| Code | , |  | History Major |  |  |
| Master of Public Management |  | credits) |  |  |  |  |  |  |
| CORE COURSES |  |  | Requirements for a Major in History |  |  |
| PM-901 | Project Management for Public Organizations | 3 |  |  |  |  |  |  |
| PM-903 | Economics for Policy <br> Analysis | 3 | Code | Title | Credits |
| PM-934 PM-942 | Ethics \& Management of Human Resources | 3 | HI-200 | The Historian's Craft (taken in the second year) | 4 |



| Semester Eight |  |  |
| :---: | :---: | :---: |
| HI-460 <br> or HI-470 | Senior Research Seminar in History or Senior Thesis in History | 4 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| SELECT | General Elective or Minor course | 3 |
| SELECT | General Elective or Minor course | 3 |
|  | Credits | 13 |
|  | Total Credits | 121 |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## History Major Track for History Educators

| Code | Title | Credits |
| :---: | :---: | :---: |
| Two 100-Level History Courses ${ }^{1}$ |  | 6 |
| HI-181 | First Year Cohort Class for History Educators | 1 |
| HI-200 | The Historian's Craft | 4 |
| HI-216 | Economic History of the United States | 3 |
| Or an appropriate Economics course substitute |  |  |
| HI-282 | Second Year Cohort Class for History Educators | 1 |
| HI-310 | Massachusetts History | 3 |
| HI-383 | Third Year Cohort Class for History Educators | 1 |
| HI-390 | World History for Educators | 4 |
| HI-391 | U.S. History for Educators | 4 |
| Four 200-Level or Higher History Courses ${ }^{2}$ |  | 12 |
| One Middle East/Asia Course |  |  |
| One Africa/Latin America Course |  |  |
| One Global/Thematic/Methodological Course |  |  |
| One Elective History Course |  |  |
| Capstone Course |  | 4 |
| HI-460 | Senior Research Seminar in History |  |

HI-465 | American Antiquarian |
| :--- |
| Society Seminar |

| Senior Thesis in History |
| :--- |

${ }^{1}$ Total Credits
Excluding HI-193 and fulfilling two (out of four) of
the following categories: (1) Europe/US, (2) Middle
East/Asia, (3) Africa/Latin America, and (4) Global/
Thematic.
2 One or more course must be at the 300 or 400 level.
Exception for Double Majors in Early Childhood or
Elementary Education: Only 36 History credits are
required. A student may opt to omit the free elective
and the capstone. If the capstone course is omitted,
the capstone requirement in History must be fulfilled
by submission of a non-credit History Learning
Portfolio before or during the student teaching
semester. See department for Portfolio forms and
submission guidelines.

## History Minor

# Requirements for a Minor in History 

| Code Title | Credits |
| :---: | :---: |
| Requirements | (10 |
|  | credits) |
| Any two 100-level History courses | 6 |
| HI-200 The Historian's Craft | 4 |
| History electives | (15 |
|  | credits) |
| 12 credits taken at 200 level or higher | 12 |
| 3 credits taken at 300 level or higher | 3 |
| Total Credits | 25 |

## Public History Minor

The professional field of Public History (also known as Applied History) is rapidly expanding. This 24credit minor provides specialized preparation for diverse careers in the field, including archiving, museum work, federal and state Public History programs such as the National Park Service, private institutions, and interpretive historical sites. Undergraduate coursework in the Public History minor emphasizes both practice and theory, including methods for disseminating information to diverse publics, and the preservation of heritage in the form of texts, objects, buildings, and landscapes.

The Public History minor is housed in the History and Political Science department, but it is an interdisciplinary minor with an integrated community experiential practicum or internship experience.
Students majoring in History will also be able to minor in Public History.

| Code | Title | Credits |
| :---: | :---: | :---: |
| Program Requirements |  | (24 |
|  |  | credits) |
| Required Courses |  |  |
| HI-243 | Introduction to Public History | 3 |
| HI-445 <br> or HI-440 | Public History Practicum Internship in History | 3 |
| Practices |  |  |
| Take 2 courses from the following courses |  | 6 |
| AR-118 | Global Art History |  |
| AR-225 | Art Since Mid-20th Century |  |
| EN-214 | Introduction to Digital Humanities |  |
| HI-319 | Material Culture |  |
| HI-321 | Museums and Society |  |
| UR-421 | Selected Topics in Urban Studies ${ }^{1}$ |  |
| Take 2 courses from the following courses |  | 6 |
| CM-260 | Introduction to Video |  |
| CM-359 | Documentary Production |  |
| CS-135 | Programming for Non-CS Majors |  |
| CS-140 | Introduction to Programming |  |
| CS-265 | Database Applications |  |
| EN-252 | Technical Writing |  |
| EN-281 | Writing for Digital Environments |  |
| UR-240 | Introduction to Qualitative Research Methods for the Social Sciences |  |
| Additionally, take two courses from either category or special topics by permission. |  | 6 |
| 1. UR 421 Special Topics must be Historic Preservation to fulfill this minor. |  |  |

## Music

Aligning itself with the evolving trends of the $21^{\text {st }}$ century arts world, Worcester State University offers its visual and performing arts students a Major in Interdisciplinary Visual and Performing Arts, one of the few interdisciplinary arts majors in the country. With this major, students go beyond the standard coursework in art, music, and theatre to understand the larger world of visual and performing arts. WSU's VPA major allows students to gain an interdisciplinary view of the arts and an understanding of how to use one art form to inform the other, while also gaining an in-depth knowledge of the art forms that most excite them.

The major is designed to provide students with a strong foundation in art, music, and theatre, and both a theoretical and practical understanding about how they interact in an interdisciplinary environment. Core courses promote critical thinking, and prepare students intellectually and creatively to complete their capstone/senior thesis projects and launch careers in the arts. Students craft the major to fit their areas of interest - art, music, theatre, etc. - through electives chosen in consultation with advisors.

Students apply their coursework to the production, performance, and critical study of creative work through a multitude of exhibit and performance opportunities.

## Minor in Music

Minor in Composition and Music Technology
(See Visual and Performing Arts Department (p. 314) for a complete listing of requirements and courses.)

## Music Minor

Recognizing the interdisciplinary nature of the arts and how the arts often integrate into and enhance students' study in other disciplines such as criminal justice, communication, business and psychology, the Visual and Performing Arts Department offers minors in its three disciplines of Art, Music, and Theatre. A minor in the arts allows students to further explore and develop their affinity for the arts and their artistic talents.

Students develop musicianship through instrumental and vocal lessons, study performance as members of ensembles, and complete courses in composition, history, and theory of music.

Students must audition for individual instrumental or vocal lessons.
Requirements for a Minor in Music

| Code | Title | Credits |
| :---: | :---: | :---: |
| Music Theory |  | (3 |
|  |  | credits) |
| MU-101 | Fundamentals of Music and | 3 |
|  | Aural Skills |  |
| or MU-205 | Music Theory I |  |
| Music History |  | (3 |
|  |  | credits) |
| MU-280 | History of Music | 3 |
| Music Performance |  | (3 |
|  |  | credits) |
| Three semesters of applied music lessons at 1 credit, chosen from: |  | 3 |
| $\begin{aligned} & \text { MU-102 } \\ & \text { or MU-104 } \\ & \text { or MU-106 } \end{aligned}$ | Applied Music |  |
|  | Class Piano |  |
|  | Class Guitar |  |
| MU-202 | Applied Music |  |
| MU-302 | Applied Music |  |
| MU-402 | Applied Music |  |
| Ensemble |  | (3 |
|  |  | credits) |
| Three semesters of study in any ensemble at 1 credit per semester, chosen from: |  | 3 |
| MU-220 | Chorus |  |
| MU-222 | African Drumming |  |
| MU-228 | Piano Ensemble |  |
| MU-300 | Chorale |  |
| MU-321 | Small Ensemble |  |
| MU-326 | Chamber Orchestra |  |
| Other ensemble approved by the Department |  |  |
| Electives |  | (6 |
|  |  | credits) |
| Six elective credits in any other class with an MU prefix, except MU 115 and MU 100 |  | 6 |

Total Credits

## Composition and Music Technology Minor

Recognizing the interdisciplinary nature of the arts and how the arts often integrate into and enhance students' study in other disciplines such as criminal justice, communication, business and psychology, the Visual and Performing Arts Department offers minors in its three disciplines of Art, Music, and Theatre. A minor in the arts allows students to further explore and develop their affinity for the arts and their artistic talents.

As a music composition and technology minor, students apply a strong foundation in musical literacy and personal musicianship to composition and emerging digital technologies. Traditional courses in music theory, performance, and composition prepare students for digital application of music.

Students perform original compositions as well as compose original music for student video and film projects and theatrical productions. Based on personal interest, students choose from a variety of fields to complete the elective component of this minor. These include creative writing, film and video games, web design, and practical business management in addition to visual art, music, theater, and interdisciplinary arts courses.

## Requirements for a Minor in Composition and Music Technology

22 credits as follows:

| Code | Title | Credits |
| :--- | :--- | ---: |
| MU-102 | Applied Music |  |
| \& MU-104 | and Class Piano | 2 |
| MU-185 | Composition I |  |
| MU-205 | Music Theory I | 3 |
| MU-275 | Computers and Music | 3 |
| MU-285 | Composition II | 3 |
| MU-305 | Music Theory II | 1 |
| MU-375 | Sound Synthesis | 3 |
| MU-385 | Composition III | 3 |
| SELECT | MU Elective | 1 |
| Total Credits |  | 3 |

## Visual and Performing Arts Department of Visual and Performing Arts

Aligning itself with the evolving trends of the $21^{\text {st }}$ century arts world, Worcester State University offers several programs for visual and performing arts students, including two majors, double majors for education students, and four minors.

The Major in Interdisciplinary Visual and Performing Arts is one of the few interdisciplinary arts majors in the country. With this major, students go beyond the standard coursework in art, music, and theatre to understand the larger world of visual and performing arts. WSU's VPA major allows students to gain an interdisciplinary view of the arts and an understanding of how to use one art form to inform the other, while also gaining an in-depth knowledge of the art forms that most excite them.

The interdisciplinary major is designed to provide students with a strong foundation in art, music, and theatre, and both a theoretical and practical understanding about how they interact in an interdisciplinary environment. Core courses promote critical thinking, and prepare students intellectually and creatively to complete their capstone/senior thesis projects and launch careers in the arts. Students craft the major to fit their areas of interest - art, music, theatre, etc. - through electives chosen in consultation with advisors. Students apply their coursework to the production, performance, and critical study of creative work through a multitude of exhibit and performance opportunities.

Students interested in theatre can pursue studies through the new Major in Theatre or the Major in Interdisciplinary Visual and Performing Arts. The. Major in Theatre provides marketable, hands-on production experience with an extensive variety of coursework to prepare students for a career in live theatre production, its associated industries, or advanced graduate education.

Students interested in art can pursue studies through the new Major in Art or the Major in Interdisciplinary Visual and Performing Arts. The Major in Art emphasizes the integration of broad-based studio art training and arts research with the development
of creativity, communication, and critical thinking to prepare students for graduate studies or careers in a wide range of arts-related fields.

- Art Major (p. 313)
- Art Minor (p. 313)
- Composition and Music Technology Minor (p. 406)
- Music Minor (p. 405)
- Theatre Major (p. 454)
- Theatre Minor (p. 454)
- Visual and Performing Arts and Education, Double Major (p. 490)
- Visual and Performing Arts Major (p. 489)


## Faculty

Michael C. Hachey, Professor (1993), B.F.A., M.F.A., Massachusetts College of Art

Stacey Parker, Professor (2007), B.F.A., Alfred
University; M.F.A., Rochester Institute of Technology
Amaryllis Siniossoglou, Professor (2005), P.E.P., Royal College of Art, London; M.F.A., University of Massachusetts, Amherst; Diplome Superieur d' Art Plastique, School of Art, Athens

Kyle D. Martin, Professor (1998), B.M. HardinSimmons University; M.M., D.M.A., Eastman School of Music

Carlos Odria, Assistant Professor (2020), B.A., M.Mus., Ph.D., Florida State University

Samuel O'Connell, Department Chair, Professor (2010), B.A., M.A., Washington University; Ph.D., Northwestern University

Adam Zahler, Professor (2007), B.A., University of Vermont; M.F.A., University of Virginia

## Art Courses

AR-100 Cross Media Studio
LASC Categories: CA, TLC
An introduction to selected two- and threedimensional media through the exploration of a semester-long theme such as the human figure, or forms in nature.
Fall and Spring and every year. 3 Credits

## AR-105 Introduction to Animation

This hands-on introductory course covers the fundamentals and aesthetics of computer animation using the Adobe AfterEffects motion graphics program.
Fall and Spring and every year. 3 Credits

## AR-118 Global Art History

LASC Categories: GP, DAC, CA
Surveys the outstanding visual art from all cultures beginning in the prehistoric era to the late 19th century.
Fall only and every year. 3 Credits

## AR-119 First Year Art Practicum

This course offers students an opportunity to work closely with faculty to work in the art gallery, develop technical skills, studio projects, and do research to support their creative development. This course is required for the Art Major. It will be geared to the individual needs of each student.
Other or on demand and every year. 1 Credit

## AR-123 Design Fundamentals

LASC Categories: CA, QAC
Design Fundamentals is a course combining 2 and 3 Dimensional Design. In this course we explore composition, space, and color along with planes, volumes, and environments. A variety of materials are used to create on surfaces and in actual space. Many projects are grounded in aspects of mathematical and geometrical systems, e.g., grids, tiling, Fibbonaci series, fractals, regular solids.
Fall and Spring and every year. 3 Credits

## AR-130 Painting I

LASC Categories: CA
An introduction to the fundamentals of historical painting styles, techniques, and materials used, with emphasis on visual perception and expression Fall and Spring and every year. 3 Credits

## AR-140 Drawing Fundamentals

LASC Categories: CA, GP, DAC
The development of visual perception, technical skills, and individual expression in drawing media. Students will explore concepts in drawing to develop their artwork through observation, experimentation, awareness of historical and contemporary contexts, and critical assessment. Projects utilize a variety of drawing materials to demonstrate technical facility and to enhance self-expression.
Fall and Spring and every year. 3 Credits

## AR-150 Life Studio I <br> LASC Categories: CA

Focus on the human figure through different modes of drawing and painting. Attention to structure and anatomy and their expressive aspects.
Fall and Spring and every year. 3 Credits

## AR-165 Creating Cultural Forms <br> LASC Categories: CA, GP, WAC, DAC

Prerequisites: EN-102
A studio course. Concepts of art forms created by a variety of world cultures and art movements of the past and present.
Fall and Spring and every year. 3 Credits

## AR-191 Special Topics in Art

Introductory course to cover various topics. 3 Credits

## AR-193 First Year Seminar in Art

LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Every year. 3 Credits

## AR-210 Drawing and Painting Studio <br> LASC Categories: CA

This course is a comprehensive introduction to the art of drawing and painting. Students will be strongly encouraged to explore the skills and concepts of these art forms in order to develop their ideas through observation, experimentation, historical context, and analysis. Projects are designed to expand awareness and to expose students to contemporary concerns.
Fall and Spring and every year. 3 Credits

## AR-215 Topics in Art <br> LASC Categories: CA, GP

This course chooses a topic or a theme to explore in the classroom and studio for a semester. Students will read about this topic or theme and they will produce work in the studio inspired by their reading. Topics may include (but are not limited to): the figure in art, landscape art, abstract art, science and art, social sciences and art, religion and art, east meets west, arte povera, Dada art etc. Fall only and every year. 3 Credits

## AR-219 Second Year Art Practicum <br> Prerequisites: VP-200

This course offers students an opportunity to work closely with faculty to work in the art gallery, develop technical skills, studio projects, and do research to support their creative development. This course is required for the Art Major. It will be geared to the individual needs of each student.
Other or on demand and every year. 1 Credit

## AR-221 Studio Art Practicum LASC Categories: CA

This is the first in a set of three core courses for the Art major. This course focuses on practical and professional art skills including but not limited to the creation of professional documents like resumes, artist statements and proposals, professional internet presence such as websites and social media accounts, art critique work and gallery related content such as exhibition submissions and gallery representation.
Other or on demand and every year. 3 Credits

## AR-225 Art Since Mid-20th Century

LASC Categories: CA, GP, WAC, DAC
Explores how artists have challenged the traditional definitions of the art object and the expanded materials, media and concepts employed by artists since 1950 to the present era.
Fall only and every year. 3 Credits

## AR-230 Printmaking

LASC Categories: CA
Introduction to the techniques and aesthetics of etching and relief. Prints by major artists are examined.
Fall and Spring and every year. 3 Credits

## AR-235 3D Sculpture Studio <br> LASC Categories: CA, GP, WAC <br> Prerequisites: EN-102

This is an introductory course focusing on form creation grounded in sculptural forms and techniques. Students will create sculpture by exploring traditional techniques such as molding, carving, casting and assemblage using historical and contemporary materials from clay and stone to cardboard and found objects. Historical context, skill development, critical analysis and proper tool usage and safety are emphasized.
Fall and Spring and every year. 3 Credits

## AR-240 Watercolor <br> LASC Categories: CA, TLC

A studio course exploring various techniques and expressive forms used by watercolorists of the past and present.
Fall and Spring and every year. 3 Credits

## AR-260 Visual Arts in the Schools LASC Categories: CA

An exploration of art materials and concepts, and their appropriate use with children. Includes studio projects, art history, and educational theory. 3 Credits

AR-270 Driftwood to Dumpsters
LASC Categories: CA, TLC, WAC
Prerequisites: EN-102
Students will learn about the history and practice of making art from non-traditional materials. This is a lecture and hands-on art course.
Every 2-3 years. 3 Credits
AR-285 History of Photography
LASC Categories: CA, TLC
The history of photography from 1839 to present, with attention to styles, aesthetics, technical processes, and leading practitioners. [Cross-listed with CM-285]
Every 2-3 years. 3 Credits
AR-308 Thesis Seminar
LASC Categories: CA
Prerequisites: AR-221.
This course focuses on the research that prepares students for their Capstone. They will evaluate the work of other artists working in their media, make critical judgments about the work they experience in contemporary exhibitions, and present their ideas orally in class presentations. Students will also develop their studio art portfolio and capstone proposal.
Spring only and every year. 3 Credits

## AR-319 Third Year Art Practicum

Prerequisites: AR-219
This course consolidates student studio skills, research expertise, and best practices for creative work. Students will initiate the development of a body of work that will lead to Capstone.
Other or on demand and every year. 1 Credit

## AR-330 Intermediate Printmaking

Prerequisites: AR-230
Continuation of relief printmaking in an individual direction using tone/color and multiple blocks. Every year. 3 Credits

## AR-350 Special Topics in Art

Prerequisites: one studio course or consent of instructor.
A course covering topics which vary in response to specific student and faculty interest.
Fall and Spring and every year. 3 Credits

## AR-400 Ind Study: Art

An opportunity for further study in a special field of interest under faculty supervision.
Fall and Spring and other or on demand. 3 Credits

## AR-402 Internship in Art

An individual experience through internship with a sponsoring community organization, professional institution or individual, i.e., museums, galleries, artists.
Fall only and other or on demand. 3-6 Credits

## AR-408 Directed Study: Art

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Fall and Spring. 1-3 Credits

## AR-455 Thesis Capstone

LASC Categories: CAP
Pre-requisite: Completion of all other major requirements. Students design, and create their work for public presentation. This is the final course in the Art Major and is a requirement for all the majors.
Other or on demand and every year. 3 Credits

## Music Courses

MU-101 Fundamentals of Music and Aural Skills LASC Categories: CA
An introduction to reading and writing conventional music notation, the fundamentals of music theory, and basic aural skills. Emphasis will be placed on intervals, scales, chords, rhythmic values, sightsinging, melodic dictation, and aural recognition of intervals and chords.
Every year. 3 Credits

## MU-102 Applied Music <br> LASC Categories: ICW

Prerequisites: Audition required
Audition required. Private instruction in an instrument or voice. Thirteen weekly one-hour lessons. May be repeated. Studio fee required. Instruments offered: brass, guitar, piano, percussion, strings, and winds.
Fall and Spring and every year. 1 Credit

## MU-104 Class Piano

LASC Categories: CA
Prerequisites: MU-100 or MU-101
Basic piano technique and pedagogy in a group setting of 12 or fewer
Fall and Spring and every year. 1 Credit

## MU-106 Class Guitar

An introduction to playing the guitar, including technique, reading tabs and notation, and harmonization of melodies with chords. Solo literature appropriate to the level will be studied. Students are required to provide an instrument. Fall and Spring and every year. 1 Credit

## MU-115 Music Appreciation <br> LASC Categories: CA

General survey of masterpieces of major composers of various periods in history of music.
Fall and Spring and every year. 3 Credits

## MU-120 Ear Training

Prerequisites: MU-100 or MU-101
An introductory course in the fundamentals of eartraining and sight-singing. Emphasis will be placed on the development of basic melodic, harmonic, and rhythmic aural skills through listening, dictation, and application of solfege.
Every year. 3 Credits

## MU-125 Jazz Appreciation

LASC Categories: CA, TLC
Surveys the history of jazz beginning with the earliest roots in the American South to today.
Every year. 3 Credits

## MU-140 World Music

LASC Categories: CA
An introduction to music of various cultures and continents including music of Africa, Asia, Latin America, the Middle East, and India.
Spring only and every 2-3 years. 3 Credits

## MU-175 Music in America

Survey of music history and literature in America including gospel spirituals, jazz, popular and classical music.
Other or on demand. 3 Credits

## MU-185 Composition I

LASC Categories: CA
Prerequisites: MU 101 Fundamentals of Music Aural Skills OR MU 100 Music Fundamentals
An introduction to compositional methods and techniques. Students develop personal expression by creating musical works while exploring use of melody, harmony, timbre, rhythm, texture, and tonality within conventional musical forms.
Spring only and every year. 3 Credits
MU-193 Special Topics in Music:First Year Students LASC Categories: FYS
Introductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
Every year. 3 Credits

## MU-200 Issues in Music

This course deals with topics of special interest, in both seminars and studio environments at an introductory level.
3 Credits

## MU-202 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week.
Student fee required. May be repeated. Offered every semester.
Fall and Spring and other or on demand. 1 Credit
MU-205 Music Theory I
LASC Categories: CA
Prerequisites: MU-100 or 101.
Analysis and application of harmonization techniques using diatonic chords. Further emphasis is placed on voice-leading, figured bass, melodic construction, and embellishing tones. Spring only and other or on demand. 3 Credits

MU-215 Chorus and Music Theory LASC Categories: CA<br>Prerequisites: Audition Required<br>Mixed choral repertoire and performance, covering vocal problems and techniques. Introduction to music theory, rhythms, intervals, basic chordal structures, harmonization. Participation in college chorus required.<br>Fall and Spring and every year. 3 Credits

MU-220 Chorus
LASC Categories: CA
Prerequisites: MU-215
Mixed Chorus repertoire. May be repeated.
Fall and Spring and every year. 0.5-1 Credits

## MU-222 African Drumming

LASC Categories: GP, CA, DAC
An exploration of African music and drumming techniques from the culture of Ghana. Students will develop performance skills and present a public performance during the course of the semester. Every year. 0.5-3 Credits

## MU-223 African Drumming II

LASC Categories: CA, GP
Prerequisites: MU 222-African Drumming I, or MU 193-FYS African Drumming from Ghana This Level 2 ensemble builds on Level 1 in the following ways: (a) learn new drumming styles; (b) improvise with greater freedom; and (c) learn to play lead drum rhythms, with the possibility of performing them in the final performance.
Spring only and every 2-3 years. 3 Credits

## MU-228 Piano Ensemble

LASC Categories: CA
Prerequisites: MU-102 or MU-190
A small ensemble for keyboard players who will learn, explore, and perform four- hand piano repertoire.
Every year. 1 Credit

## MU-231 Women in Music

LASC Categories: CA, TLC
A survey of the role of women in music, particularly the great composers from Medieval to Contemporary times.
3 Credits

## MU-237 Music in the Elementary School LASC Categories: CA

Discover the benefits of using music to enrich general education from preschool through high school. Develop your own musicianship through learning to use your singing voice, learning to play the recorder, learning to read notation and gaining an overview of western music history.
Other or on demand. 3 Credits

## MU-250 Music of the Cinema:Spectacle, Splendor, And Spielberg <br> LASC Categories: CA, TLC

An introduction to the role, impact, and importance of music in motion pictures from silent movies through contemporary film.
Spring only. 3 Credits

## MU-275 Computers and Music

An introduction to computer music technologies with emphasis on use of electronics and computers in music composition and performance, Further emphasis will be placed on basic acoustics, perception of sound, application of computer music in experimental genres, digital recording, mixing, fundamentals of sound synthesis and digital signal processing.
Other or on demand and other or on demand. 3 Credits

## MU-280 History of Music

LASC Categories: CA
A general survey of western art music covering the historical periods of the Medieval, Renaissance, Baroque, Classical, Romantic, and 20th Century. Fall and Spring and every year. 3 Credits

## MU-285 Composition II

Prerequisites: MU-185 or MU-204, and MU-205. A continuation of Composition I. Students will explore methods of tonal composition Emphasis will be placed on melodic writing, harmonization practices, chord substitutions, use of figurations, texture, and timbre in tonal music. Experimentation with rhythmic and metric practices including asymmetry, shifting accents, changing time signatures, and ostinato.
Fall and Spring and every year. 1 Credit

## MU-300 Chorale <br> LASC Categories: CA

Prerequisites: Audition Required
Study and performance of a cappella choral literature from the Middle Ages to contemporary times. May be repeated. Audition required for enrollment.
Every year. 0.5-1 Credits

## MU-302 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week. Student fee required. May be repeated. Offered every semester.
Fall only and every year. 1 Credit

## MU-305 Music Theory II LASC Categories: CA

Prerequisites: MU-205
Harmonization of melodies using primary and secondary chords, harmonic analysis of tonal music from the Common Practice Period, including diatonic and chromatic chords, secondary dominants, modulation, and aural skills. An introduction to formal schemes in music including phrase structure, binary and ternary and form, sonata form, and species counterpoint.
Fall only and every year. 3 Credits
MU-310 The American Musical in Performance Study, rehearsal and performance of a great American musical. Music, acting and dance will all be skills which are developed.
Every 2-3 years. 3 Credits

## MU-321 Small Ensemble

LASC Categories: ICW, CA
The performance of musical works by a small ensemble. By permission of instructor or audition. Fall and Spring and every year. 0.5-1 Credits

## MU-326 Chamber Orchestra <br> LASC Categories: CA

In this class the students will rehearse and perform music from the orchestral repertoire in a variety of styles and genres and from varied periods. All woodwind, string, brass, keyboard and percussion instruments are eligible to participate. 1 credit section for those repeating the class in another semester and those in proposed revised music minor; . 5 credit section for VPA music concentrators Pre-requisite: Audition for Instructor
Fall and Spring and every year. 0.5-3 Credits

## MU-330 Jazz Ensemble

LASC Categories: ICW, USW, DAC
An ensemble where students learn to perform traditional jazz repertoire, as well as original compositions. Through rehearsing, performing, directed listening and ear training, students will learn: (a) conceptual approaches to improvising and composing; (b) harmonic, melodic and rhythmic theory specific to the jazz idiom; and (c) methods for connecting audiation to instrumental playing. Special emphasis will be on jazz standards, especially those with a blues form. 3 credits 1 credit if repeating . 5 for Visual and Performing Arts majors with music concentration or focus and those who minor in composition and music technology
Fall and Spring and every year. 0.5-3 Credits

## MU-375 Sound Synthesis

Prerequisites: MU-275
A continuation of MU 275 Computers and Music. Focus on application of sound in composition acoustics and additive synthesis, modulation and waveshaping, signal flow, processing, digital filtering, reverberation, and sample processing.
Other or on demand and other or on demand. 3 Credits

## MU-385 Composition III

Prerequisites: MU 285/Composition II MU 305/Music
Theory I (currently MU 210)
An exploration of compositional practices presented during Composition II. Students will compose absolute music in the style of the Common Practice Period as well as work with superimposed chords, shifting tonality, pandiatonicism, large-scale forms, polyrhythms, and polymeter, This course introduces to composing tonal music for non-musical genres including media, video games, incidental music for theater and film.
Other or on demand and every year. 1 Credit

MU-400 Independent Study in Music
Prerequisites: Consent of Instructor
An opportunity for further study in a special field of interest under faculty supervision.
Fall and Spring and every year. 1-6 Credits

## MU-402 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week. Student fee required. May be repeated. Offered every semester.
Fall and Spring. 1 Credit

## MU-408 Directed Study: Music

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## MU-410 Special Topics in Music

This course will allow members of the music faculty to develop courses of special interest. This would include seminars on specific composers or compositions, in both classroom and applied studio enviorments.

## 0.5-3 Credits

## MU-485 Composition IV

Prerequisites: MU-385
Compositional techniques of the 20th-century including modality, parallelism, atonality, serialism, electronic music, aleatory, music concrete, and sound synthesis.
Other or on demand and other or on demand. 1 Credit

## Theatre Courses

## TH-126 Script Analysis

LASC Categories: CA, TLC, DAC
Script analysis for theatre artists. How to take a script from initial reading to production.
Other or on demand. 3 Credits

## TH-145 Acting I

LASC Categories: CA
Introductory acting theory and practice. Students present brief monologues and scenes in class. Fall and Spring and every year. 3 Credits

## TH-155 First-Year Theatre Practicum

Practical work in Theatre production for first-year students.
Fall and Spring and every year. 1 Credit

## TH-175 Introduction to Stagecraft

LASC Categories: CA, QR
An introductory class to major types of Stagecraft for live theatre. Students will learn in formal classes and in 30 hours of scheduled laboratories about set construction, costume construction and lighting technology. Students will learn the vocabulary of technical theatre and will learn geometric and mathematical methods required for each of the three main areas covered.
Fall and Spring and every year. 3 Credits

## TH-191 Introduction to the Theatre <br> LASC Categories: CA

An overview of live performance, with the emphasis on audience appreciation. Performance arts and crafts are examined.
Fall and Spring and every year. 3 Credits

## TH-193 Special Topics in Theater:First-Year Students

 LASC Categories: FYSIntroductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
Every year. 3 Credits

## TH-235 History of Theatre

LASC Categories: GP, TLC, DAC
Survey of world theatre including from its ritual origins through the classical era, medieval era, the renaissance, the restoration, the modernist revolution to the present day. This global approach includes historical examples from Europe, Africa, Asia, North
America, and South America.
Fall and Spring and every year. 3 Credits

## TH-246 Voice and Movement

Prerequisites: TH-145.
Training to strengthen the natural voice, develop diction, learn period movement and develop spatial awareness on and off stage.
Every year. 3 Credits

## TH-255 Second-Year Theatre Practicum

Practical work in Theatre production for second-year students.
Every year. 1 Credit

## TH-263 Concepts of Theatre Design LASC Categories: CA

This is a fundamental design course for live theatre, but will also apply to other design fields. Drawing, both freehand and digital, will be studied. Students will learn the elements and principles of design, and how to apply them to Scenic, Costume and Lighting Design, as well as other modes of 2-dimensional and 3 -dimensional art. Additive and subtractive color theory will be covered. Students will learn the specialized language of design and will study how to approach the three areas of design aforementioned. Other or on demand and every year. 3 Credits

## TH-270 History of American Entertainment I LASC Categories: CA, USW

An historical survey of American popular entertainments from the Colonial period through the end of the nineteenth century.
Every year. 3 Credits
TH-271 History of American Entertainment II LASC Categories: CA, USW
An historical survey of American popular entertainments from the rise of film and radio through the great American musicals.
Every year. 3 Credits

## TH-272 History of Costume

LASC Categories: CA
The history of clothing from ancient times to the present. Lecture/discussion and a research project on a chosen era or culture.
Every 2-3 years. 3 Credits

## TH-274 Stage Management <br> LASC Categories: CA, QAC

An introduction to the craft of stage management focussing on the techniques, responsibilities and duties necessary to manage both rehearsals and performances.
Every year. 3 Credits

## TH-290 Theatre for Young Audiences

LASC Categories: ICW, CA, DAC
Organization of children's theatre, script selesction, visual design, rehearsal and performance.
Investigation of creative drama as a teaching tool in elementary education.
Spring only and other or on demand. 3 Credits

TH-292 Applied Theatre and Community Engagement LASC Categories: CA, ICW
Principles and techniques of leading improvised dramatic activities with children and adults. Involves sensory awareness, imagination, movement and story dramatizations.
Every year. 3 Credits

## TH-321 Rehearsal and Performance

LASC Categories: CA
Public performance of full-length stage productions under faculty direction. Students assume performance and/or production "roles" as described in departmental manual.
Spring only and every year. 3 Credits

## TH-345 Acting II

Prerequisites: TH-191 TH-145
Further development of acting skills with emphasis on stage-acting technique.
Every year. 3 Credits

## TH-348 Stage Combat

LASC Categories: CA, ICW
Prerequisites: TH-191 or TH-145.
Training in armed and unarmed combat for the stage. emphasis will be placed on safety in the choreography of stage fighting.
Every year. 3 Credits

## TH-355 Third-Year Theatre Practicum

Practical work in Theatre production.
Fall and Spring and every year. 1 Credit

## TH-360 Scenic Design for Theatre

LASC Categories: CA
Scenic Design for Theatre will include research, drafting, drawing and rendering, model building and presentation of scenic designs for assigned plays.
Every year. 3 Credits

## TH-370 Costume Design for Theatre

LASC Categories: CA
Conceptualization, collaboration, research, figure
drawing and rendering, swatching, and presentation of costume designs for assigned plays.
Every year. 3 Credits

## TH-380 Directing

Prerequisites: TH-145 and TH-191
Script selection, casting, scene analysis, blocking, rehearsal techniques and other concerns of the theatrical director. Students direct a short scene and short plays.
Every 2-3 years. 3 Credits

## TH-390 Lighting Design for Theatre <br> LASC Categories: CA

Study and exercises in conceptualization, collaboration, design presentation, qualities and functions of light, drafting the light plot, and control of theatrical lighting.
Every year. 3 Credits

## TH-399 Special Topics in Theatre

Will include study of topics on an as needed basis, (i.e. in conjunction with a production, or a course for advanced students who wish to pursue further study).
Other or on demand and other or on demand. 3 Credits

## TH-405 Independent Study in Theatre

Offers motivated students the opportunity to study a theatre topic not covered in the established curriculum.
Other or on demand and other or on demand. 1-6 Credits

## TH-408 Directed Study: Theatre

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## TH-435 Internship in Theatre

Provides an opportunity for students in good standing to gain practical experience with professional theatre or related organizations. Other or on demand and other or on demand. 1-12 Credits

## TH-455 Theatre Capstone

LASC Categories: CAP, WAC
Prerequisites: TH-155 and TH-255 and TH-355
Theatre students will create a senior thesis project/ capstone in acting, directing, design, playwriting, craft or dramaturgy, chosen in consultation with a faculty advisor and demonstrating the skills learned in their studies. The capstone may be part of a mainstage production or a student generated project. Each capstone project will be accompanied by a written analysis showing their research or fulldocumentation of their process. Fall and Spring and every year. 3 Credits

## Visual and Performing Arts Courses

VP-155 First Year Practicum

Students will put into practice interdisciplinary concepts, ideas, and techniques at an experiential level.
Spring only and every year. 1 Credit
VP-193 Special Topics in Visual and Performing Arts:
First-Year Students
LASC Categories: FYS
Introductory level courses covering topics of special interest to first-year students. Offered only as FirstYear Seminar.
Every year. 3 Credits
VP-200 Critical Thinking in the Arts
LASC Categories: CA, TLC, DAC, QAC
The experience of art, music, and theatre to develop individual critical thinking in the similarities and differences among the arts.
Every year. 3 Credits

## VP-210 Contemporary Dance Styles I

LASC Categories: CA
The study and movement of dance vocabularies in one or more contemporary and modern styles.
Every year. 3 Credits

## VP-255 Second Year Practicum

Prerequisites: VP-155
Students will put into practice interdisciplinary concepts, ideas, and techniques at a exploratory level.
Spring only and every year. 1 Credit

## VP-355 Third Year Practicum

Prerequisites: VP-155 and VP-255
Students will put into practice interdisciplinary concepts, ideas, and techniques at an experimental level.
Spring only and every year. 1 Credit
VP-364 Interdisciplinary Arts Theory Prerequisites: VP-200
An exploration of interdisciplinary art theory drawing on theories and critical writings from Art, Music, and Theatre from a variety of historical periods.
Fall and Spring and every year. 3 Credits

VP-365 Interdisciplinary Arts Practice
Prerequisites: VP-200
Examines examples of contemporary modes of interdisciplinary works of music, theatre, and visual art with the goal of developing an individual, creative aesthetic.
Spring only and every year. 3 Credits
VP-405 Independent Study in the Arts
Prerequisites: Permission of Instructor
An opportunity for advanced students to examine topics not ordinarily covered in other arts courses. Every year. 1-6 Credits

## VP-408 Directed Study. Visual \& Performing Arts

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.

## 3 Credits

## VP-410 Special Topics in the Arts

Study of topics not otherwise covered in the curriculum. [Prerequisite: [2 VP courses] Fall and Spring and every year. 3 Credits

## VP-435 Internship in the Arts

Advanced students gain practical experience in a working arts environment.
Fall and Spring and every year. 3-12 Credits

## VP-455 Arts Capstone/Senior Thesis

LASC Categories: WAC, CAP
Prerequisites: VP-200, and EN-102
Students design and create a work or works of art, music, or theatre for public presentation.
Every year. 3 Credits

## Program Learning Outcomes <br> Art

- Acquire the principles of art and design.
- Demonstrate knowledge of traditional and contemporary art practices.
- Cultivate aesthetic and conceptual judgments.
- Develop skills in critical thinking and analysis.
- Demonstrate effective written, oral, and visual communication skills.
- Produce artwork in a variety of media and techniques.


## Theatre

- Acquire the critical language for the analysis and interpretation of theatre
- Demonstrate aesthetic literacy over historical periods and cultures that pertain to the production and interpretation of theatre
- Apply theoretical knowledge and concepts to the creation and critical analysis of theatre
- Utilize critical thinking skills in the production of theatre


## Visual and Performing Arts

- Acquire the critical language for the analysis and interpretation of art forms
- Demonstrate aesthetic literacy over historical periods and cultures that pertain to the production and interpretation of art
- Apply theoretical knowledge and concepts to the creation and critical analysis of art forms
- Utilize critical thinking skills in the production of creative work


## Philosophy

## Department of Philosophy

The study of Philosophy helps students to develop insights into the nature of individuals, societies, and values, and it helps them to think critically about themselves and the world around them. By studying philosophical works from the past and present, East, West, North, and South, students engage theories about such central concepts as personhood, justice, gender, knowledge, language, and science.

- Philosophy Minor (p. 421)

Frank Boardman, Department Chair, Assistant Professor (2017), B.A., Hunter College; Ph.D., The City University of New York Graduate Center

Carter Hardy, Assistant Professor (2022), B.A., University of Central Florida; M.Phil., Ph.D., University of South Florida

Laura W. Kane, Assistant Professor (2020), B.A., Hunter College, City University of New York; M.Phil., Ph.D., The Graduate Center, City University of New York

Sharisse Kanet, Visiting Assistant Professor (2022), B.A., Wesleyan University; M.A., Ph.D., CUNY Graduate Center

Henry C. Theriault, Associate Vice President for Academic Affairs, Professor (1998), B.A., Princeton University; Ph.D., University of Massachusetts

## Courses

## PH-100 Introduction to Philosophy

LASC Categories: HBS, TLC
The fundamentals of philosophy: its vocabulary, problems, and methods.
Every year. 3 Credits
PH-101 Ancient Greek Philosophy LASC Categories: ICW, TLC
Introduction to fundamental topics in Western philosophy through the works of ancient philosophers, including Plato and Aristotle. While predominantly Greek thinkers are studied, the course may include Roman or other ancient thinkers as well. Every 2-3 years. 3 Credits

PH-102 History of Modern Western Philosophy 1600-1800
LASC Categories: HBS, TLC
Engages central topics of Western philosophy through study of important modern philosophers, typically from Descartes through Kant.
Every 2-3 years. 3 Credits

## PH-110 Critical Thinking

LASC Categories: TLC, ICW
Critical thinking through informal logical identification, analysis and evaluation of arguments, including identification of fallacious arguments, through engagement with rhetoric and public discourse
Fall and Spring and every year. 3 Credits

## PH-115 Logic I

LASC Categories: QR
A study of introductory symbolic (formal) logic, covering sentential logic and the foundations of predicate logic.
Every year. 3 Credits

## PH-130 Ethics: Human Conduct \& Values

LASC Categories: HBS, TLC
The nature of morality and value and their place in the world of human action.
Every year. 3 Credits

## PH-131 Medical Ethics

LASC Categories: HBS, TLC
An introductory-level examination of various ethical issues such as abortion, euthanasia, cloning and other genetics issues, access to health care, race and health care, and women's health.
Every 2-3 years. 3 Credits

## PH-132 Business Ethics

LASC Categories: HBS, TLC
An introduction to ethical theory and issues such as truth in advertising, product liability, affirmative action, employer and employee rights and duties, whistle blowing, and corporate responsibility.
Every 2-3 years. 3 Credits
PH-133 Social and Political Ethics
LASC Categories: HBS, TLC, DAC
Investigates major social and politicl theories and their applications to selected problems of justice.
Every 2-3 years. 3 Credits

## PH-134 Computing Ethics <br> LASC Categories: HBS, ICW

An introduction to significant issues in the ethics of computing, including the application of ethical theories to the development of technology, cyberculture, and artificial intelligence, as well as some distinct ethical theories that emerge from thinking about computing and information technology.
Fall and Spring and every year. 3 Credits

## PH-151 Race, Gender, and the Law

 LASC Categories: TLC, USW, CON, DIVThis course provides a philosophical approach to issues of race and gender as expressed in legislation, judicial interpretation, enforcement, and public policy. Every 2-3 years. 3 Credits

## PH-152 Philosophy of Love and Sex

 LASC Categories: HBS, ICW, DAC Investigates the concepts of love and sex and structural and discursive factors contributing to our daily experiences of these phenomena.Every year. 3 Credits

## PH-163 Philosophy on Television

LASC Categories: USW, TLC
An introduction to philosophy through philosophical writings on popular television shows.
Every 2-3 years. 3 Credits
PH-170 Introduction to Asian Philosophy
LASC Categories: GP, TLC, DAC
Introduces and surveys the major philosophical traditions in East-Asia, South-Asia, and South-East
Asia. This course will study the different worldviews, conceptions of human nature and the good life from these philosophical perspectives, and where possible, make comparisons with Western philosophies.
Every 2-3 years. 3 Credits

## PH-171 Buddhist Philosophy

LASC Categories: GP, ICW, DAC
Introduces and surveys the history and development of the major Buddhist traditions, and their interpretation of core Buddhist philosophies, as they move outwards from India.
Every 2-3 years. 3 Credits

## PH-172 Chinese Philosophy

LASC Categories: GP, TLC, DAC
Surveys the philosophies of ancient China, including Taoism, Buddhism, Legalism and the development of the Confucian tradition in China.
Every 2-3 years. 3 Credits

PH-177 Introduction to Latin American Philosophy
LASC Categories: GP, TLC, DAC
An introduction to many of the principal texts, thinkers, and debates within Latin American philosophy.
Every 2-3 years. 3 Credits

## PH-178 Africana Philosophy

LASC Categories: TLC, USW, DAC
Explores the philosophy of the African diaspora in African, African American and Caribbean writings. The course addresses both historical and contemporary material across intersections of race, gender, and class using philosophy, history, and literature.
Every 2-3 years. 3 Credits

## PH-180 Sports and Philosophy

LASC Categories: ICW
Examines key ethical and other issues in sports, including competition, fair play, sportspersonship, drug use, race and gender, and violence.
Every 2-3 years. 3 Credits

## PH-190 Special Topics in Philosophy

An introductory philosophy course on current or specialized topics. LASC Categories: Varies by topic.
See current course listing for specific LASC area approved.
Every 2-3 years. 3 Credits

## PH-193 First Year Seminar Philosophy <br> LASC Categories: FYS

An introductory course covering a topic of special interest to first-year students. Offered only as a FirstYear Seminar.
Every 2-3 years. 3 Credits

## PH-200 Knowledge and Reality

LASC Categories: NSP, TLC
A critical evaluation of answers to the most general questions of human existence: What is there? How do we know it? How did it come to be?
Every 2-3 years. 3 Credits

## PH-201 19th Century European Philosophy

LASC Categories: HBS, TLC
Engages the radical new philosophical ideas
developed on the European Continent in the 19th
Century, beginning with Hegel.
Every 2-3 years. 3 Credits

## PH-215 Logic II <br> LASC Categories: QR

Prerequisites: $\mathrm{PH}-115$
Intermediate symbolic (formal) logic including multiplaced predicates and identity.
Every 2-3 years. 3 Credits

## PH-220 Philosophy of Mind

LASC Categories: NSP, TLC
Prerequisites: EN-102
Drawing on canonical philosophical texts as well as research from relevant disciplines, this course is an investigation of the relationship between mental phenomena and physical states and processes, along with implications for such issues as personal identity and free will.
Every 2-3 years. 3 Credits

## PH-221 Existentialism and Phenomenology LASC Categories: GP, TLC

Examines the Existentialist movement of the first half of the 20th Century.
Every 2-3 years. 3 Credits

## PH-223 American Philosophy

LASC Categories: TLC, DAC
Prerequisites: EN-102
Surveys key movements in the history of philosophy in the United States that have come to be identified with the tradition of American philosophy, including Transcendentalism, Pragmatism, indigenous philosophy, African American philosophy, and their representative thinkers.
Every 2-3 years. 3 Credits

## PH-225 Philosophy of Language

LASC Categories: TLC, ICW
A survey of theories of reference, truth, word and sentence meaning, ordinary language philosophy, embodied communication, and/or dialogic ethics. Every 2-3 years. 3 Credits

## PH-231 Philosophy of Law

LASC Categories: CON, HBS, USW, DIV, DAC
Prerequisites: EN-102
Survey of the legal theories and issues and the philosophical bases of key legal and related political concepts, including Natural Law Theory, Legal Positivism, Legal Realism, and critical perspectives. Every year. 3 Credits

## PH-237 Philosophy of Space and Time <br> LASC Categories: NSP, TLC

An investigation into philosophical problems regarding space and time, with a focus on those that emerge from the history of science and contemporary physics.
Spring only and every 2-3 years. 3 Credits
PH-240 Political Theory
LASC Categories: USW, TLC, DIV
Investigates concepts including political power, equality, revolution, liberties, slavery, socialism and patriarchal power, race and gender.
Every year. 3 Credits
PH-241 Genocide and Human Rights
LASC Categories: USW, GP, DIV
This course treats the ethical, political, and other dimensions of systematic mass violence through case studies and general theoretical analyses.
Every 2-3 years. 3 Credits
PH-242 Race, Nation, Class, Gender and Sexuality
LASC Categories: USW, HBS, DIV
Examines these five important social categories
that define the political, legal, economic, and cultural contexts in which we live.
Other or on demand. 3 Credits

## PH-250 Global Feminisms

LASC Categories: TLC, GP
Investigates the theoretical underpinnings of women's movements for equal rights around the globe.
Every 2-3 years. 3 Credits

## PH-251 Mass Violence Against Women

LASC Categories: USW, GP, DIV
A philosophy-based, interdisciplinary course examining historical and contemporary mass violence against women.
Every 2-3 years. 3 Credits

## PH-254 Feminist Theory

LASC Categories: HBS, USW, DAC, DIV
Feminist Theory: Examines the development of feminist ideas and movements from the 18th century to the present, in the US and, particularly in recent decades, globally. A close analysis of Second Wave, Postmodern, and Black Feminist ideas are studied as a basis for writings and social action that attends to issues of race, class, gender, and sexuality, using intersectional methodologies and critiques to address issues of reproduction and health, labor and economic power, violence, and state power. Other or on demand and every year. 3 Credits

## PH-260 Philosophy of Science LASC Categories: HBS, TLC

Critically investigates such quesions as: What distinguishes sciences from pseudo-sciences? When is a theory confirmed? What is a law of nature? Every year. 3 Credits

## PH-262 Philosophy of Art

LASC Categories: CA, TLC
Prerequisites: One semester of philosophy required.
An investigation of the nature of aesthetic experience, art and art history, creativity, criticism and artistic reception.
Alternating and every 2-3 years. 3 Credits

## PH-263 Film and Philosophy

LASC Categories: GP, TLC
An intermediate study of films presenting philosophical ideas about film.
Every 2-3 years. 3 Credits

## PH-264 Philosophy of Education <br> LASC Categories: TLC, ICW

Examines philosophical approaches to education through readings of various authors such as Plato, Rousseau, Wollstonecraft, Dewey, and Freire. Additionally surveys recent empirical and/or crossdisciplinary work that engages with philosophical approaches to education, including psychology, cognitive science, education, feminist theory, critical race theory, and/or decolonial theory.
Every 2-3 years. 3 Credits

## PH-290 Advanced Special Topics in Philosophy

A treatment of current or special topics for students beyond the introductory level. LASC Categories:
Varies by topic. See current course listing for specific LASC area approved.
Every 2-3 years. 3 Credits

## PH-301 Individual Figure in the History of Western Philosophy <br> Prerequisites: EN-102

Studies a specific Western philosopher. The philosopher for a given semester will be indicated in the course registration listings.
Every 2-3 years. 3 Credits
PH-320 Topics in Metaphysics and Epistemology Prerequisites: EN-102
Selected topics in theories of mind, language, and knowledge.
3 Credits
PH-327 Feminist Medical Ethics
LASC Categories: DIV, ICW
This course will examine various feminist critiques of mainstream bioethics and explore the growth of feminist bioethics as its own distinct sub-field. We will work through feminist conceptions of autonomy and epistemic injustice, and discuss how those conceptions affect decision making with respect to medical interventions. We will focus upon ethical questions and cases that highlight feminist concerns about reproductive choice, reproductive technology, dependency and disability, race, gender, and power imbalances. We will also explore how feminist conceptions of autonomy and care reframe ethical concerns regarding medical decision making for children and minors. Prerequisite: Sophomore standing.
Other or on demand. 3 Credits

## PH-360 Philosophy of History

LASC Categories: USW, GP
Prerequisites: 3 credits from department PH
Explores the different philosophical approaches to the study and writing of history and the nature of historical change and development.
Every 2-3 years. 3 Credits

## PH-390 Independent Study in Philosophy

Tutorials in areas of philosophy not covered in normal course offerings.
Fall and Spring and every year. 1-6 Credits

## PH-391 Internship in Philosophy

Provides an opportunity for mid-level or advanced students to increase their philosophical knowledge. 3 Credits

## PH-408 Directed Study: Philosophy

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction of and with agreement from a faculty member.
3 Credits

## Program Learning Outcomes

- Regarding argumentation and evidence, students will:
- Recognize, analyze, and assess arguments presented in readings, discussions, and other sources, such as newspaper editorials.
- Construct arguments in which premises logically connect to conclusions.
- Appreciate, evaluate, and employ scientific and social scientific evidentiary standards.
- Identify or formulate alternative viewpoints, concepts, lines of argument, or interpretations of presented viewpoints, concepts, lines of argument, or interpretations, when those alternatives are not given.
- Regarding historical and theoretical frameworks, students will:
- Develop knowledge of one major period in the history of philosophy.
- Develop understanding, ability to discuss, and ability to evaluate major theories and concepts in metaphysics, epistemology, ethics, political philosophy, and/or aesthetics.
- Interpret philosophical texts in order to recognize, explicate, and critique a range of plausible meanings of each text.
- Comprehend, represent, appraise, and sometimes resolve conceptual tensions among distinct metaphysical, etc., theories.
- Philosophy beyond the discipline, students will:
- Develop critical questions about mainstream points of view and assumptions about the world, human beings, etc.
- Appreciate and appraise the role and impact of philosophical analysis and inquiry in other disciplines, such as the physical sciences, medicine, religion, etc.
- Examine and appraise claims about causal relations that are held to produce scientific knowledge or historical, social, cultural, and political developments.
- Identify, comprehend, appraise, and/or apply multiple theories of ethical or social responsibility.


## Philosophy Minor

## Requirements for a Minor in Philosophy

18 credit, including:
(a) At least one course from group 1: Values and Society
(b) At least one course from group 2: Culture and Traditions
(c) At least one course from group 3: Knowledge, Reason, and Reality
(d) at least one course at the 200 level and at least one course at the 300 level

| Code | Title | Credits |
| :--- | :--- | ---: |
| Group 1: Values and Society |  |  |


| PH-178 | Africana Philosophy |  |
| :---: | :---: | :---: |
| PH-180 | Sports and Philosophy |  |
| PH-201 | 19th Century European Philosophy |  |
| PH-242 | Race, Nation, Class, Gender and Sexuality |  |
| PH-250 | Global Feminisms |  |
| PH-254 | Feminist Theory |  |
| PH-262 | Philosophy of Art |  |
| PH-263 | Film and Philosophy |  |
| PH-360 | Philosophy of History |  |
| Group 3: Knowledge, | Reason, and Reality | 3 |
| PH-110 | Critical Thinking |  |
| PH-115 | Logic I |  |
| PH-215 | Logic II |  |
| PH-220 | Philosophy of Mind |  |
| PH-221 | Existentialism and Phenomenology |  |
| PH-225 | Philosophy of Language |  |
| PH-237 | Philosophy of Space and Time |  |
| PH-260 | Philosophy of Science |  |
| PH-264 | Philosophy of Education |  |
| PH-320 | Topics in Metaphysics and Epistemology |  |
| Philosophy Elective Courses |  | 9 |
| Total Credits |  | 18 |

Minors should contact the Chair of the Philosophy Department to arrange for departmental advising, and they should select their philosophy courses in consultation with their departmental advisor. Advising can include support for a student's graduate, law, or other professional school application process.

## Political Science Department of History and Political Science

Our department explores the present and past through two distinct disciplines: History and Political Science. The Political Science program at Worcester State University offers a major and minor in Political Science and minors in Pre-Law and Civic Engagement. Political Science gives students the opportunity to pursue a broad range of questions about the organization and function of government. Students in Political Science programs acquire the analytical skills to ask and answer questions about how and why governments operate in the way that they do. Students can choose to focus on any of the traditional subfields of political science, which include American politics, comparative government, international relations, and political theory. Graduates are prepared to work in a broad array of professional settings, including in traditional career paths such as government service, law, business, journalism, and education; working with community and nonprofit organizations; and involvement in political movements and elected office. Many graduates continue their education to pursue advanced degrees in graduate school or law school.

- Civic Engagement Minor (p. 430)
- Political Science Major (p. 432)
- Political Science Minor (p. 432)
- Pre-Law Minor (p. 432)


## Faculty

Nathan Angelo, Associate Professor (2016), B.A., Hofstra University; M.A., New York University and City University of New York; Ph.D., New School for Social Research

Erika Briesacher, Professor (2012), B.A., Illinois Wesleyan University; M.A., Southern Illinois University, Edwardsville; Ph.D., Kent State University

Anthony Dell'Aera, Associate Professor (2016), B.A., Trinity College; M.A., Ph.D. Brown University

Charlotte Haller, Department Chair, Professor (2004), B.A., Brown University; M.A., Ph.D., University of Wisconsin

Tona J. Hangen, Professor (2008), B.S., Massachusetts Institute of Technology; Ph.D., Brandeis University

Robert W. Smith, Professor (2007), B.A., Syracuse
University; M.A., Ph.D., College of William and Mary
Catriona Standfield, Assistant Professor (2020), B.A.,University of Adelaide; M.A., Ph.D., Syracuse University

## Courses

PO-110 American Government LASC Categories: HBS, USW, CON
This course introduces students to the American political system and thus it will be an exploration of American republican democracy. We will attempt to understand the way that the political system operates by examining Congress, the presidency, the judiciary, federalism, political parties, interest groups, elections, civil liberties and civil rights, and policy issues relevant to Americans. We will explore the way that institutional arrangements facilitate debate, which ultimately leads to policy changes. Our objective in this class will be to understand the workings of American democracy.
Fall and Spring and every year. 3 Credits

## PO-120 Global Politics

LASC Categories: GP, HBS, DAC, DIV
An introduction to Comparative Politics and International Relations. In this course, students will learn how different countries around the world govern themselves and how they interact with each other. Topics may include democratic and non-democratic regimes, theories of war and peace, global political cultures, and intergovernmental organizations such as the United Nations. [Applicable to the Global Studies Concentration.]
Fall and Spring and every year. 3 Credits

## PO-130 Introduction to Political Theory

 LASC Categories: TLCThis course introduces students to the field of political theory by focusing on some of the major works and concepts such as democracy, freedom, liberty, and justice.
Alternating and every year. 3 Credits

## PO-150 Foundations of Legal Studies LASC Categories: HBS, CON

This course introduces the fundamentals of the American legal system. Primary topics will include the sources of law; constitutional interpretation; the roles of the executive, legislative, and judicial branches of government; federal and state judicial systems; civil and criminal law; legal ethics; and questions of power, authority, justice, inequality, individualism, and the community. Students will also learn the fundamentals of legal research, such as locating the texts of statutes, regulations, and court decisions on specific subjects; reading and analyzing statutes and case law; and developing techniques for legal writing and oral presentations.
Fall and Spring and every 2-3 years. 3 Credits

## PO-160 Introduction to Civic Engagement LASC Categories: ICW, USW

What are the responsibilities of citizenship? How do we define community? What are the ways we can participate in civic life? This course in civic learning and civic engagement will help prepare individuals for effective democratic participation, which in turn promotes growth of healthy communities, global economic vitality, social and political well-being and democratic human interactions. Through a variety of readings and experiential activities, students will be introduced to the four core pillars in the Civic Engagement field: Civic and Democratic Knowledge, Civic and Democratic Skills, Civic and Democratic Values, and Civic and Democratic Action. Alternating and every year. 3 Credits

## PO-191 Special Topics: Political Science

Other or on demand. 3 Credits

## PO-193 First Year Seminar Political Science LASC Categories: FYS

Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Fall only and every year. 3 Credits
PO-201 International Relations Theory
LASC Categories: USW, GP WAC LASC Categories: USW, GP, WAC
Theory and practice of international security (realism and internationalism) and international political economy (liberalism and protectionism) in their historical context. [Applicable to the Global Studies Concentration.]
Alternating and every 2-3 years. 3 Credits

## PO-202 Globalization

LASC Categories: USW, GP, WAC
The promise and problems of globalization (spread of free market capitalism and political democracy). [Applicable to the Global Studies Concentration.] Every 2-3 years. 3 Credits

## PO-203 Gender, War and Peace

LASC Categories: GP, HBS, DAC, DIV
A practical and thematic examination of the relevance of the concepts of gender to war and peace. Students will become familiar with multiple, feminist approaches to topics such as: militarization, gender and armed actors, wartime violence, the impact of war on gender relations, peace activism, peace processes, and peacekeeping. Classes will also cover the emergence of new norms adopted by the UN system to address these issues, as well as the emergence of feminist foreign policies. We will examine cases drawn from across the globe. Alternating and every year. 3 Credits

## PO-204 Women in Politics

LASC Categories: DIV, HBS
This course examines how women have gained access to formal politics in the US and internationally. Using intersectional feminist theories and theories of political participation, mobilization, and representation, we will examine why women and which women are excluded from formal politics, how women have exercised political power formally and informally, which women benefit most from expanded participation, and whether women's political representation is linked to better outcomes for ordinary women across different groups. Every 2-3 years. 3 Credits
PO-205 Poverty and Development
LASC Categories: GP, HBS, DIV
Why are some countries rich, and some poor? What causes these global inequalities, and do we have effective policy solutions? Does aid work? In this course, we will examine the political economy of development across the globe. We will examine how concepts like "poverty" are defined and measured, competing explanations for development, and the efficacy of international responses to poverty alleviation. Importantly, we will center the experiences and perspectives from the Global South. Every 2-3 years. 3 Credits

## PO-209 Ancient and Classical Political Theory

This class introduces students to the ideas and concepts found in the works of ancient and classical political theorists. We will read major works by theorists like Plato, Aristotle, Machiavelli, Locke, Mill, Hobbes, the Federalists, and Rousseau. Emphasis will be placed on how theorists justify the existence of government and how its conception has evolved over time. We then trace fundamental principles, such as democracy, liberty, and justice and show how these ideas are encapsulated in the US Constitution. Every 2-3 years. 3 Credits

## PO-211 History of US Foreign Policy I <br> LASC Categories: USW

Colonial origins to the era of the Spanish-American War. The sources and development of United States foreign policy in that period. [Cross-listed with HI-211.]
Every 2-3 years. 3 Credits

## PO-212 History of US Foreign Policy II <br> LASC Categories: USW

From 1900 to recent times; United States foreign policy traditions and the challenges of great power status. [Cross-listed with HI-212.]
Every 2-3 years. 3 Credits
PO-213 The Modern Presidency
LASC Categories: HBS, USW
This course will examine the evolution of the presidency. Special attention is given to those presidents who have expanded the office.
Every 2-3 years. 3 Credits

## PO-215 State and Local Government

LASC Categories: HBS, USW
Examines sub-national governments and politics in the United States; the structure and problems of these governments.
Every 2-3 years. 3 Credits

## PO-216 Political Parties and Interest Groups <br> LASC Categories: HBS

Examines the organization, functions, and methods of political parties; the role of interest groups in the American political process.
Every 2-3 years. 3 Credits

## PO-217 The U.S. Congress <br> LASC Categories: HBS, CON

The nature and function of the United States Congress, including the complexities of the lawmaking process, Congressional elections, the relationship between individual members of Congress and their constituencies, major issues of public policy, and institutional relations between Congress, the Presidency, and the Judiciary.
Alternating and every 2-3 years. 3 Credits

## PO-218 US Constitutional History I

LASC Categories: CON, HBS, USW
The development of constitutional history as seen in decisions of the United States Supreme Court and their effects, from 1789 to 1921. [Cross-listed with HI-218.]
Every 2-3 years. 3 Credits

## PO-219 US Constitutional History II

LASC Categories: CON, USW, HBS
Supreme Court decision-making from 1921; Federal-
State relations, civil liberties, civil rights, loyalty program, labor, rights of defendants. [Cross-listed with HI-219.]
Every 2-3 years. 3 Credits

## PO-220 European Politics

LASC Categories: HBS, GP
This course provides a comparative study of European government and politics, with a focus on major countries such as Great Britain, France, Italy, Spain, Germany, and Russia. Special emphasis will be placed on learning about the structure of political power within the state and on important institutions that form the link between state and society, such as political parties and interest groups. Diverse nationalistic responses to the European Union will also be considered. [Applicable to the Global Studies Concentration.]
Every 2-3 years. 3 Credits

## PO-221 Asian Politics

LASC Categories: HBS, GP
This course provides students with an analysis of selected political systems of the countries of Asia. Students will have the opportunity to learn about major theories in comparative politics, which will be applied to the understanding of countries in the Asian region. Topics will include communist and post-communist transitions, democratization, social movements, and economic reform. [Applicable to the Global Studies Concentration.]
Every 2-3 years. 3 Credits

## PO-222 Latin American Politics <br> LASC Categories: GP, HBS

This course provides a comparative study of the government and politics of contemporary Latin America. It will explore the political systems of various countries, as well as how political dynamics, such as democratization, authoritarianism, and crisis situations, have affected political, economic, and social policies throughout the region. [Applicable to the Global Studies Concentration.]
Every 2-3 years. 3 Credits

## PO-223 Political Communication LASC Categories: TLC

This course will analyze the relationship between citizens' opinions and the mass media through a focus on political campaign and governmental communication strategy. Specific attention will be given to the history of the relationship between politicians and the media. We will also study political campaign advertisements. We will analyze how political candidates and governments communicate with voters, how they shape their images and manage crises, and ultimately attempt to determine how effective politicians are in influencing public opinion.
Alternating and every 2-3 years. 3 Credits
PO-224 Middle Eastern Politics
LASC Categories: HBS, GP
This course provides students with an analysis of selected political systems of the countries of the Middle East. Students will have the opportunity to learn about major theories in comparative politics, which will be applied to the understanding of countries in the Middle Eastern region. International rivalries in the area are also discussed. [Cross-listed with $\mathrm{HI}-330$ ]
Alternating and every 2-3 years. 3 Credits

## PO-230 Campaigns and Elections LASC Categories: HBS

This course examines political campaigns and elections in the United States, with a focus on the candidate nomination and electoral process, campaign structures and strategies, voting, political participation, public opinion, the media, political behavior, and the role of political parties.
Alternating and every 2-3 years. 3 Credits

PO-234 Modern and Contemporary Political Theory
This course will focus on how recent political philosophers have responded to questions such as what constitutes liberty, freedom, and justice. In turn, students will be prompted to consider questions such as when is it necessary for government to constrain freedom, and how can conflicts between the rights of the individual and the rights of the community be adjudicated. This class will allow for engagement with these concepts through the works of modern political theorists such as Marx, Nietzsche, Freud, and Arendt, and contemporary political theorists such as Rawls, Nozick, Dworkin, Berlin and Strauss. Alternating and every 2-3 years. 3 Credits

## PO-240 The United Nations and Global Governance LASC Categories: HBS, GP

This course explores a selection of the various organizations that are relevant in contemporary global politics. Special attention will paid to the United Nations, as well as to organized political movements that challenge, and/or offer alternative visions for, global governance. Concepts, practices, and processes that will be covered in this course include: sovereignty, democracy, human rights, global capitalism, and political resistance/pre-figurative politics.
Alternating and every 2-3 years. 3 Credits

## PO-241 English Constitutional History

LASC Categories: GP, HBS
Development of English Constitution from Magna Carta through revolution, supremacy of Parliament, reform acts, entry into European Union and devolution. [Cross-listed with $\mathrm{HI}-241$.]
Every 2-3 years. 3 Credits

## PO-243 City Politics

LASC Categories: HBS, DAC, DIV
This course examines the political development and the political processes of America's cities. The actors in this story include machine bosses, reformers, immigrants, bureaucrats, politicians, average citizens, the rich, the poor, and the marginalized. Particular attention will be given to the political institutions of city government, structures and strategies of city elections, local party organizations, governing strategies of mayors, evolving urban populations and interests, and enduring problems such as racism, prejudice, discrimination, poverty, crime, education, economic decay and exploitation. Alternating and every 2-3 years. 3 Credits

## PO-250 Doing Political Science: an Introduction To Research Methodology <br> LASC Categories: HBS, QAC

Prerequisites: PO-110 or PO-120.
This course introduces students to the research process in Political Science. There will be an emphasis on both quantitative and qualitative methods of generating and analyzing social science statistics and other data in order to answer research questions about the political world around us. In this course students will learn what makes Political Science a "science." No previous experience in math, statistics, or programming is required.
Alternating and every 2-3 years. 4 Credits

## PO-262 Principles of US Public Policy LASC Categories: HBS

This course introduces students to how American public policy is formulated and how public policies can be evaluated. These theoretical and structural frameworks are then applied to a series of case studies of public policies to examine the role of politics in how the policy process works and to develop a fuller understanding of the political and ideological debates over contemporary public policy issues such as welfare, social security, heath care, education, labor, criminal justice, and the environment.
Alternating and every 2-3 years. 3 Credits

## PO-264 American Political Thought

LASC Categories: TLC, USW, DAC, DIV
This course examines the evolution of American political thought as a means to better understand the role of political ideology in contemporary politics. Through a close reading of mainly primary source documents in political theory spanning the colonial period through the present era, students will critically engage topics such as American iterations of Republicanism and Democracy, American character, slavery, race, women's rights, ethnicity, class, and immigration. These topics will reveal challenges to core American values which would shape American political development. We will also examine how different varieties of liberals and conservatives confront these political questions.
Every 2-3 years. 3 Credits

## PO-265 Racial and Ethnic Politics <br> LASC Categories: HBS, USW, DAC

This class will analyze the relationship between the United States government and racial and ethnic groups and explore the way that race is utilized in American politics. We will focus on issues affecting racial and ethnic communities in the United States, the politics behind racial and ethnic classification, and the use of racial and ethnic appeals in American political campaigns. The readings for this course will cover topics such as affirmative action, criminal justice reform, and civil rights. It will offer students an opportunity to analyze political speeches and advertisements that utilize race and ethnicity. Every 2-3 years. 3 Credits

## PO-299 Special Topics in Political Science

Special Topics in Political Science at the introductory and intermediate level, offering an overview of a particular subject that is not regularly offered in the course catalog; appropriate for students at any level. Other or on demand and other or on demand. 3 Credits

## PO-301 International Law

LASC Categories: HBS, GP, DAC
Prerequisites: $\mathrm{PO}-110$ or PO-120
An examination of international law through the lens of international relations. This course will focus on international humanitarian law (the law of war), international human rights law, and territorial law (border disputes). We will examine contemporary and historical cases, such as genocide in Myanmar, the wars in Iraq and Afghanistan, the expansion of human rights to women and Indigenous peoples, and China's claims to the South China Sea. Students will also learn about the courts and legal instruments involved in enforcing each area of international law. Alternating and every 2-3 years. 3 Credits

## PO-311 Environmental Politics and Policy LASC Categories: HBS, NSP

Investigation of the factors that determine the formation of public policy on the environment with consideration of the roles played by federal, state, and local regulatory agencies in the United States. Case studies will include global climate change, air and water pollution, energy, land use, brownfields, waste management, endangered species, and population growth.
Alternating and every 2-3 years. 3 Credits

## PO-312 Health Politics and Policy <br> LASC Categories: HBS, ICW

Examination of the process and factors that influence formulation, implementation and modification of health policy in the United States. Topics will include health ethics, insurance, finance, prescription drug regulation, Medicare/ Medicaid, epidemics, private markets, public interest, distributive justice, and the role of government. Fall and Spring and every year. 3 Credits

## PO-313 The Politics of American Education

 LASC Categories: DACPrerequisites: EN102 or EN202, PO110
This course explores the political issues relevant to the American educational system. The focus of the course will be the contemporary political debates and public policy attached to both the American public school system and the system of higher education. We will analyze federal and state educational policy, trace the development of federal involvement in the education system, and explore the current political issues related to the American education system. Special attention will be given to issues of race, sex/ gender, and class.
Other or on demand and every 2-3 years. 3 Credits
PO-318 Constitutional Law of Government Powers And Constraints
LASC Categories: CON
Prerequisites: PO-110
A critical analysis of key US Supreme Court decisions addressing the horizontal allocation of power among federal government branches and institutions, and the vertical allocation of power between federal and state governments. Attention will also be given to unresolved constitutional issues between the legislative and executive branches, the Massachusetts state constitution, and to the theoretical foundations of the United States Constitution (such as Locke, Montesquieu, and the Federalist Papers).
Alternating and every 2-3 years. 3 Credits

## P0-319 Constitutional Law of Civil Rights and Liberties <br> LASC Categories: CON <br> Prerequisites: PO-110

This course will provide students with an analysis of law pertaining to civil liberties and civil rights in the Unites States, with attention also given to Massachusetts. Following the historical development of constitutional law in the United States, we will begin with pre-Civil War law to see how fundamental civil liberties and civil rights have been applied to the states.
Alternating and every 2-3 years. 3 Credits

## PO-320 Citizen Nation

LASC Categories: CON, USW, DAC, WAC, DIV
Prerequisites: EN-102 or EN-202.
Explores the history and meaning of citizenship in the United States, including discrimination, rights struggles and changing citizenship criteria. [Crosslisted with $\mathrm{HI}-320$.]
Other or on demand. 3 Credits

## PO-322 Nationalism

Examines the theories fo nationalism, the development of the modern Nation-state, and its effect on global politics. [Cross-listed with HI-322. Applicable to the Global Studies Concentration.] Other or on demand. 3 Credits

## PO-323 Empire

Prerequisites: $\mathrm{HI}-103$ and $\mathrm{HI}-104$
Theories and models of colonization, the reaction of colonized peoples, and the way historians analyze imperialism from 1400 to 1920's. [Cross-listed with $\mathrm{HI}-323$. Applicable to the Global Stuydies Concentration.]
Every 2-3 years. 3 Credits

## PO-325 The Kennedy Legacy in American Public Life

Prerequisites: PO-110 or HI-112
An interdisciplinary study of the impact that members of the Kennedy family have had in American politics, public policy, history, and culture. Topics for close analysis may include Civil Rights, Health Care, the Peace Corps, the Cuban Missile Crisis, the Vietnam War, the Media, and Political Campaigns. In addition to traditional coursework, students will have the opportunity to engage in original research at the Edward M. Kennedy Institute, the JFK Library, and other public history archives. The course uses the Kennedy Legacy as a template for students to gain knowledge and values to assume the roles and responsibilities of citizenship. Other or on demand and other or on demand. 3 Credits

## PO-327 Global South Leadership in the United

 NationsLASC Categories: GP, DIV
Prerequisites: EN-102.
Global South individuals and countries have been instrumental and creating and sustaining the United Nations. In this course, we examine how the Global South has used the UN to foster action on issues such as human rights, decolonization, gender equality, and environmental sustainability. In this course, students will get to experience these issues through a field trip to UN headquarters and a Model United Nations simulation.
Every 2-3 years. 3 Credits

## PO-334 Environmental Crisis and Management in China

LASC Categories: HBS, NSP
Prerequisites: EN-102 or EN-202
This course will examine the history of the relationship between Chinese society and culture, economic development, state power, scientific theories, and the environment. Recent media reports have highlighted a worsening environmental crisis in China while at the same time reporting on China as a new leader in the development of alternative energy sources. This course will trace the political, economic, social, and scientific history behind this environmental crisis, and will evaluate the role of local, regional, and national levels of the government, domestic and international non-governmental organizations, urban and rural activists, scientific studies and discourses, and evolving political ideologies. [Cross-listed with HI-334.]
Every 2-3 years. 3 Credits

P0-361 The Rise of the Right: Conservative Politics From Goldwater to Today
LASC Categories: TLC
Prerequisites: EN-102 or EN-202 Take PO-110;
This course will critically trace the development of conservative politics in the United States from the 1960s to today. Students will analyze various influential conservative activists and thinkers like Barry Goldwater and Charles Murray to consider their influence on the political campaigns and strategies of figures like Ronald Reagan, Richard Nixon, and Donald Trump. We will read the texts of key conservative thinkers on welfare, race, and foreign relations to analyze their lasting impact on American politics.
Other or on demand and every 2-3 years. 3 Credits

## PO-370 Crisis Politics

Prerequisites: PO-110 or PO-101 (archived)
Analyze the theories regarding the roots of violence, revolution, and terrorism. Special attention will be devoted to violence in America.
Every 2-3 years. 3 Credits
PO-380 American Foreign Policy Since the Cold War LASC Categories: CON, USW, HBS
Prerequisites: $\mathrm{PO}-110$ or $\mathrm{PO}-101$ (archived) or $\mathrm{HI}-112$ or $\mathrm{HI}-212$
Instruments of American foreign policy; major foreign policy developments since 1947.
Every 2-3 years. 3 Credits

## PO-399 Special Topics in Political Science

Prerequisites: PO-110, PO-120, or PO-130.
Special Topics in Political Science at the advanced level, offering a discipline-specific examination of a particular subject that is not regularly offered in the course catalog; appropriate for more advanced students who have previously taken courses in Political Science.
Other or on demand and other or on demand. 3 Credits

## PO-401 Senior Research Seminar in Political Science LASC Categories: CAP, WAC <br> Prerequisites: PO-110 and EN-102 or EN-202 <br> A capstone research seminar for Political Science majors in which students integrate their training as political scientists in terms of research, analysis, and evaluation of recent and seminal scholarship in one or more of the major subfields, culminating in a large scale original research paper that uses appropriate methods to answer emerging questions in the discipline. <br> Alternating and every year. 4 Credits

## PO-408 Directed Study: Political Science

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Fall and Spring and every year. 3 Credits

## PO-440 Internship in Political Science

Internships in government agencies, political parties, election campaigns, non-governmental organizations, the news media, and other institutions in the public and private sectors. Students will perform a variety of tasks in a professional setting, combining the academic study of politics with practical work experience.
Fall and Spring and every year. 1-6 Credits

## PO-441 Internship in Pre-Law

Internships with Courts, Law Firms, the District Attorney's office, the Public Defender's office, Legal Aid societies, and other institutions involved in the practice of law. Students will perform a variety of tasks in a professional legal setting, combining the academic study of Pre-Law with practical work experience.
Fall and Spring and every year. 1-6 Credits
PO-450 Special Topics: Political Science
Selected areas of interest to students and instructors. Topic, prerequisites and instructor are announced in advance.
Other or on demand. 3 Credits

## PO-470 Senior Thesis-Capstone Project <br> LASC Categories: CAP, WAC

An intensive independent research project that serves as a capstone experience for students majoring in Political Science. Students may opt either to (1) write a traditional formal thesis, or (2) complete an alternative large scale experiential project in applied political research, political action, or creative political arts. The Senior Thesis/Capstone Project may be used to substitute for the Senior Research Seminar requirement in the Political Science major. Fall and Spring and every year. 4 Credits

## Program Learning Outcomes

- Students will identify and explain the structure and function of government, both as an abstract concept and in specific historical and national contexts.
- Students will differentiate among and apply key concepts in the field of political science, such as power, sovereignty and legitimacy.
- Students will compare political systems, constitutions, national interests, and ideas of international responsibilities as elements of global politics.
- Students will apply political theory in their examination of political systems.
- Students will select and apply appropriate methodologies (such as from economics, anthropology, psychology, organizational behavior, and history) to evaluate different political systems and theories.
- Students will determine the relevance of political participation to political outcomes; they will connect their political science learning to their own political identity.


## Civic Engagement Minor

| Code | Title | Credits |
| :--- | :--- | ---: |
| Foundation |  | 3 |
| PO-160 | Introduction to Civic |  |
|  | Engagement |  |

Breadth
One course from each of the three civic engagement categories - courses must derive from three different disciplines.

Two courses from a single civic engagement category.

| Experiential |  | 3 | CM-206 | Digital Storytelling | 3 |
| :---: | :---: | :---: | :---: | :---: | :---: |
| One practicum/internship focused on civic engagement at the 300 or 400 level in any department, as approved by the student's civic engagement advisor. Options include, but are not limited to: |  |  | CM-213 | Gender and the Media | 3 |
|  |  |  | CM-260 | Introduction to Video | 3 |
|  |  |  | CM-268 |  | 3 |
|  |  |  | CM-272 |  | 3 |
| UR-440 | Practicum in Urban Studies |  | CM-305 |  | 3 |
| CM-352 |  |  | CM-315 | Social Media | 3 |
| PO-440 | Internship in Political Science |  | CM-325 | Community Media Production | 3 |
| Total Credits |  | 21 | CM-340 | Public Relations Strategy | 3 |
|  |  |  | CM-345 |  | 3 |
| Code | Title | Credits | CM-350 | Intercultural Communication | 3 |
| Category 1: Politics \& Policy |  |  | CM-359 | Documentary Production | 3 |
| CM-384 | Media Criticism | 3 | CM-363 | Visual Media Literacy | 3 |
| EV-130 | Environmental Problems and Solutions | 3 | CM-390 | Independent Media and Society | 3 |
| EV-235 | Contemporary Climate Change | 3 | EN-107 | Journalism and Democracy | 3 |
|  |  |  | EN-268 | Journalism: Feature Writing | 3 |
| GE-250 | Urban Geography | 3 | EN-272 | News Reporting and Writing I | 3 |
| GE-258 | Global Environmental Change | 3 | EN-322 | Community Writing | 3 |
|  |  |  | PO-216 | Political Parties and Interest | 3 |
| GE-285 | Sustainable Communities | 3 |  | Groups |  |
| PO-215 | State and Local Government | 3 | PO-223 | Political Communication | 3 |
| PO-217 | The U.S. Congress | 3 | PO-230 | Campaigns and Elections | 3 |
| PO-243 | City Politics | 3 | TH-292 | Applied Theatre and | 3 |
| PO-262 | Principles of US Public | 3 |  | Community Engagement |  |
|  | Policy |  | Category 3: Social Justice \& Social Change |  |  |
| PO-265 | Racial and Ethnic Politics | 3 | CM-416 | Media Law and Ethics | 3 |
| PO-311 | Environmental Politics and Policy | 3 | HI-217 | US Social History | 3 |
|  |  |  | HI-243 | Introduction to Public | 3 |
| PO-319 | Constitutional Law of Civil Rights and Liberties | 3 |  | History |  |
|  |  |  | HI-320 | Citizen Nation | 3 |
| PO-325 | The Kennedy Legacy in American Public Life | 3 | PH-130 | Ethics: Human Conduct \& Values | 3 |
| UR-310 | Power, Politics and Decision-Making in Urban Communities | 3 | PH-131 | Medical Ethics | 3 |
|  |  |  | PH-133 | Social and Political Ethics | 3 |
| UR-311 | Urban Politics and Policies | 3 | PH-151 | Race, Gender, and the Law | 3 |
| UR-320 | Power and Urban Insecurity | 3 | PH-241 | Genocide and Human Rights | 3 |
| UR-360 | Environmental Systems and Public Policy | 3 | SO-200 | Contemporary Social Problems | 3 |
| UR-380 | Public Policy and Cultural Diversity | 3 | SO-230 | Political Sociology | 3 |
|  |  |  | SO-285 | Race, Class and Gender | 3 |
| Category 2: Communications \& Advocacy Skills |  |  | SO-300 | Social Change | 3 |
| CM-106 | Communications and the Internet | 3 | SO-305 | Applied Sociology | 3 |
|  |  |  | SO-315 | Social Movements | 3 |
| CM-107 | Journalism and Democracy | 3 | UR-213 | Human Identity and Urban | 3 |
| CM-110 | Public Speaking | 3 |  | Environment |  |
| CM-204 | Analysis of News | 3 |  |  |  |


| UR-305 | Group Conflict in the Urban <br> Community |
| :--- | :--- |
| UR-321 | Advanced Social Work |

Requirements for the Major in Political Science

| Code | Title | Credits |
| :--- | :--- | ---: |
| Introductory Courses |  |  |
| PO-110 | American Government | 3 |
| PO-120 | Global Politics | 3 |
| 1 Additional 100-level PO Course | 3 |  |
| Methods | Doing Political Science: an <br> Introduction To Research <br> PO-250 | 4 |

or another appropriate research methods course of at least 3 credits approved for this requirement by the Political Science advisor

| Electives |  |  |
| :---: | :---: | :---: |
| 5 Elective Courses at the 200 Level or Above |  | 15 |
| 2 Elective Courses at the 300 Level or Above |  | 6 |
| Experiential |  |  |
| PO-440 <br> or PO-441 | Internship in Political Science <br> Internship in Pre-Law | 1-6 |
| or another appropriate practicum approved for this requirement by the Political Science advisor |  |  |
| Capstone |  |  |
| PO-401 | Senior Research Seminar in Political Science | 4 |
| or PO-470 | Senior Thesis in Political Sc |  |

Total Credits

## Political Science Minor

Requirements for a Minor in Political Science

| Code | Title | Credits |
| :--- | :--- | ---: |
| PO-110 | American Government | 3 |
| PO-120 | Global Politics | 3 |
| 3 elective courses in Political Science at any level | 9 |  |
| 1 elective course in Political Science at or above | 3 |  |
| the 300 level |  | 18 |

## Pre-Law Minor <br> Requirements for the Pre-Law Minor:

| Code <br> Required Courses | Title |
| :--- | :--- |
| PO-150 | Foundations of Legal <br> Studies |
| PH-110 | Critical Thinking |
| or PH-115 | Logic I |
| PH-231 | Philosophy of Law |
| or PH-151 | Race, Gender, and the Law | | A course in this category not taken as a |
| :--- | :--- |
| Required Course can be taken to satisfy the |

Law \& Marginalized Groups

## At least one of the courses taken to satisfy

 the requirements of the Pre-Law Minor must address issues of law and marginalized groups. Students can satisfy this requirement by taking PH-151 Race, Gender, and the Law, or PO-319 Constitutional Law of Civil Rights and Liberties, or an appropriate course approved by the Pre-Law Advisor.A student may substitute an appropriate course approved by the Pre-Law Advisor for any of the above requirements.

## Total Credits

In addition to the Pre-Law Minor, WSU has multiple 3+3 Law Degree Agreements, with the UMass School of Law and the Western New England University School of Law. More information about these programs can be found at https:// www.worcester.edu/Articulation-Agreements/.

## Psychology

## Department of Psychology

Psychology courses acquaint students with basic principles of learning, motivation, development, and interpersonal relationships, providing a foundation for effective living and a background for a variety of career opportunities. The major provides students with a wide range of marketable and graduate study skills that include interpersonal awareness, problemsolving, research, and computer literacy.

Baccalaureate degree holders are prepared for entry level positions in a broad range of areas including health and social services, mental health, organizational leadership and management, community relations, education, human resources, program development, public affairs, social science research, and programs for women. Psychology is recognized in Massachusetts as a certificate academic major for Early Childhood and Elementary Education students. Those with bachelor's degrees in psychology work in the same fields as do psychologists with graduate degrees. Some of the department's alumni:

- Counsel or teach people in group homes, nursing homes, and clinics
- Are case managers in insurance companies
- Plan and execute research
- Help young people in juvenile courts, schools and recreational programs
- Are behavior specialists
- Counsel drug addicts and victims of abuse

The department provides solid preparation for graduate work in psychology by helping students develop specializations and providing opportunities for the development of excellent research skills. The department offers an HONORS program and an internship program and operates a state-of-theart computer laboratory. Psi Chi, the national honor society in psychology, is available to outstanding students who major in the discipline.

The minor programs offer an opportunity for students wishing to develop a core understanding of psychology. A general minor in Psychology, as well as a specialized minor in Human Development, are available.

## Admission Requirements

Admission is open to any student who is interested in psychology and who can maintain a 2.0 grade point average in the required and elective psychology courses.

## Standards for Minimum Academic Performance in the Psychology Major

The Psychology major requires a minimum grade of C- in all courses applied to the major. Courses may be repeated. The C - minimum grade does not apply to psychology courses beyond those applied to the major (four specified, four from specified areas and four elective courses). Students must maintain a minimum overall GPA of 2.0 in the major, consistent with Worcester State University policy.

## Concentrations

Students may choose to simply major in psychology without a particular specialization (by completing the Requirements for a Major in Psychology) or may choose to major in psychology with a specialization by completing the requirements for a concentration in Mental Health Services, or an Interdisciplinary Concentration in Women's Studies.

## Evening Psychology

The required core courses for the Psychology Major may be completed with evening or summer courses. Many core courses are offered in the evening during each academic year as well as some elective courses. Internships and independent study courses, however, are only offered in Fall and spring day courses.

## HONORS Program

The HONORS program is designed to increase opportunities for students of outstanding ability to engage in independent work and prepare for more challenging futures. It is especially recommended for students planning to pursue graduate education.

The HONORS project must be completed and presented to the faculty sponsor. Students are required to make an oral presentation on the project in a session open to all faculty and students in the department.

Admission to the HONORS program is by application. The admission requirements, closing date for application and instructions for completing the application process may be obtained from the Department Office.

- Human Development Minor (p. 440)
- Minor in Mental Health Services (p. 440)
- Psychobiology Minor (p. 441)
- Psychology Major (p. 442)
- Psychology Major, Concentration in Developmental Processes (p. 444)
- Psychology Major, Concentration in Mental Health Services (p. 444)
- Psychology Major, Interdisciplinary Concentration in Women's Studies (p. 445)
- Psychology Minor (p. 446)


## Faculty

Alexandra M. Burgess, Associate Professor (2017), B.A., Smith College; M.A., Ph.D., University of Hawai'l at Manoa

Amy Cota-McKinley, Professor (2002), B.A., University of Wisconsin; M.S., Jacksonville State University; Ph.D., Colorado State University

Lori J. Dawson, Professor (1995), B.A., Suffolk University; M.A., Ph.D., State University of New York, Albany

Sarah Eagan, Assistant Professor (2022), B.A., Sonoma State University; M.A., Ball State University; Ph.D., University of Nebraska

Charles R. Fox, Professor (2013), O.D., New England College of Optometry; B.A., M.A., St. John's University; Ph.D., Brandeis University

Kathryn Frazier, Associate Professor (2016), B.A., Scripps College; M.A., Ph.D., Clark University

Benjamin Jee, Associate Professor (2015), B.S., University of Toronto; Ph.D., University of Illinois, Chicago

Brittany Jeye, Assistant Professor (2019), B.S., M.A., Ph.D., Boston College

Bonnie G Kanner, Professor (1997), B.A., M.S., C.A.S., State University of New York, Albany; Ph.D., Clark University

Jacqueline N. Raftery-Helmer, Associate Professor (2017), B.S., Union College; M.A., Ph.D., Clark University

Nicole Rosa, Associate Professor (2014), B.A., Stonehill College; M.S.W., Boston College; M.A., Ph.D., Brandeis University

Brandi Silver, Department Chair, Professor (2003), B.S., M.S., Ph.D., Colorado State University

Emily Soltano, Professor (1999), B.A., Ph.D. State
University of New York, Albany
Champika K. Soysa, Professor (2003), B.A., Mount
Holyoke College; M.A., Ph.D., Clark University
Colleen Sullivan, Professor (2012), B.S., Frostburg State University; M.A., Ph.D., University of Maryland, Baltimore

Seth Surgan, Professor (2006), B.A., University of North Carolina, Chapel Hill; M.A., Ph.D., Clark University

Marc J. Wagoner, Associate Professor (2004), B.A., Morehouse College; Ph.D., University of Minnesota

## Courses

PB-200 Introduction to Psychobiology
LASC Categories: HBS, NSP, LAB
Prerequisites: PS-101 and $\mathrm{BI}-116$ or $\mathrm{BI}-140$.
Introductory course in Psychobiology that covers topics including neurobiology, evolution, sensory/ motor systems, learning and memory, and social behavior.
Fall only and every year. 4 Credits
PB-400 Capstone in Psychobiology
LASC Categories: CAP
Seminar covering selected topics in Psychobiology including primary source material readings, laboratory activities, discussion, oral presentation and written papers.
Spring only and every year. 2 Credits

## PS-101 General Psychology <br> LASC Categories: HBS

Introduction to history of psychology, scientific method, brain/nervous system, development, learning, motivation, sensation/perception, personality, psychopathology, psychotherapy, cognitive processes, social behavior. Fall and Spring and every year. 3 Credits

## PS-193 Special Topics in Psychology for First Year

 Students
## LASC Categories: FYS

Introductory level course covering topics of sepcial interest to first year students. Offered only as a First Year Seminar.
Fall only and every year. 3 Credits

## PS-201 Career Exploration in Psych LASC Categories: HBS, ICW

Prerequisites: PS-101.
This course guides students in exploring the broad range of career opportunities in the field of psychology. The class is for any student who is considering the field of psychology and intended for those beginning their undergraduate careers. This class provides students with the information about the intersection between areas in psychology, related careers and graduate school options. It debunks the myth that you must go to graduate school if you major in psychology.
Alternating and every year. 3 Credits

## PS-210 Developmental Psychology <br> LASC Categories: HBS, ICW

Prerequisites: PS-101 with a C- or above. Physical, social, emotional, intellectual, and moral development from conception to adolescence is examined within a framework of various theories. Fall and Spring and every year. 3 Credits

## PS-222 Introduction to Health Psychology

Prerequisites: PS-101 with a C- or above. Introduction to the areas and methods of Health Psychology. Topics include: epidemiology, behavior change, compliance, alternative medicine, healing, chronic illness.
Other or on demand and every year. 3 Credits

## PS-230 Brain and Behavior <br> LASC Categories: NSP

Prerequisites: PS-101 (Majors must pass with a C- or better). Credit will not be granted for both PS 230 and PS 380
An introduction to the biological basis of behavior. Fall and Spring and every year. 3 Credits

## PS-240 Introduction to Abnormal Psychology <br> LASC Categories: HBS

Prerequisites: PS-101. Psychology majors must pass with a C- or above. Credit will not be provided for both PS-240 and PS-335.
Etiology, dynamics and treatment of psychopathology and their relation to normal personality are considered from traditional and contemporary perspectives.
Fall and Spring and every year. 3 Credits

## PS-250 Social Psychology

Prerequisites: PS-101 with a C- or above.
The psychological dynamics of social interaction including verbal and non-verbal communication, group dynamics and attitude formation and change. Other or on demand and every year. 3 Credits

## PS-252 Applied Social Psychology

Prerequisites: PS-101 with a C- or above.
Survey of applied social psychology including psychology in educational, organizational, and legal settngs; diversity, environmental, health, media, and consumer issues.
Other or on demand and every year. 3 Credits

## PS-254 Persuasion

Prerequisites: PS-101 with a C-
Explores the areas of persuasion, social influence, and compliance gaining in various situations by utilizing psychological theories/approaches to explain behavior.
Other or on demand and every year. 3 Credits
PS-255 Psychological Foundations of Diversity
Prerequisites: PS-101 with a C- or above.
Explores the gender, racial/ethnic, multiple-group membership, cultural, social class, religious, disability and sexual orientation facets of diversity.
Other or on demand and every year. 3 Credits
PS-260 Psychology of Human Sexuality
Prerequisites: PS-101 with a C- or above.
Sexuality as a foundation of personality. The wide range of human sexuality is explored; sexual development, roles, attitudes and behaviors.
Other or on demand and every 2-3 years. 3 Credits

## PS-263 Psychology of Women

Prerequisites: PS-101 with a C- or above.
Women's psychological development throughout the lifespan will be examined, including female development, achievement, stereotyping, stress, violence and psychological disorders.
Other or on demand and every 2-3 years. 3 Credits

## PS-270 Psychopharmacology <br> LASC Categories: NSP

Prerequisites: PS-101 with a C- or above.
This course will explore the effects of psychotropic drugs on the brain and subsequent effects on behavior.
Other or on demand and every year. 3 Credits

## PS-275 Psychological Statistics <br> LASC Categories: QR, QAC, NLL

Prerequisites: PS 101 with a C- or above, and a passing grade in a college level math, or an Math Placement Test of 3 or higher Data tabulation; graphing; measurement of central tendency, variability and correlation; hypothesis testing applied to psychological and sociological data. Hand and computer analysis.
Fall and Spring and every year. 4 Credits

## PS-276 Research Methods

LASC Categories: WAC
Prerequisites: PS-101 with a grade of C - or above, EN-102 PS-275 with a grade of $\mathrm{C}_{-}$or above, and 3 credits in another 200 level Psychology course C- or above..
Exploration of psychological research methodologies including: scientific method, design, conduction, analysis, and reporting of research, ethical principles and APA format.
Fall and Spring and every year. 3 Credits

## PS-280 Sensation and Perception

LASC Categories: NSP
Prerequisites: PS-101. (Majors must pass with a C- or better)
Selected sensory and perceptual processes are studied in the context of current theory and research. Fall and Spring and every year. 3 Credits

## PS-295 Special Topics in Psychology

Prerequisites: PS-101 with a C- or above.
Selected areas of mutual interest to instructor and students. Topics and prerequisites are announced in advance.
Other or on demand and other or on demand. 3 Credits

## PS-297 Research in Psychology

Prerequisites: PS-101, and PS-275 or PS-276.
Lab and/or field based research on a specific research topic under the supervision of a faculty member. May include assisting faculty with ongoing research. Written report required.
Fall and Spring and every year. 1-3 Credits

## PS-307 Applied Research Methods

LASC Categories: WAC
Prerequisites: PS-101, PS-205 or PS-276, PS-275
EN-102 with a C- or above.
Extension of research design and methods introduced in PS-276: Research Methods, including applied research design, statistical analysis, and scientific writing.
Fall and Spring and every year. 3 Credits
PS-310 Development of Exceptional Children/Youth LASC Categories: HBS
Prerequisites: PS-101 and PS-210. (Majors must pass with a C- or better)
Characteristics and needs of children with exceptionalities including intellectual disabilities, learning disabilities, physical and sensory disabilities, social-emotional difficulties, and giftedness. Fall only and every year. 3 Credits

## PS-312 Psychology of Adolescence

Prerequisites: PS-101 and PS-210 with a C- or above. The mental, emotional, social and physical changes of contemporary adolescence are examined with emphasis on family, peer and school influence. Fall and Spring and every year. 3 Credits

## PS-315 Physical and Sexual Abuse

Prerequisites: PS-101-General Psychology with a C- or above. PS-240-Introduction to Abnormal Psychology with a C- or above or by permission of instructor for the Women's, Gender, and Sexuality Studies Minor.
Etiology, characteristics, consequence, treatment and prevention of various forms of physical, sexual and emotional abuse in children, adolescents and adults. Other or on demand and every 2-3 years. 3 Credits

## PS-318 Behavior Management Techniques <br> LASC Categories: HBS

Prerequisites: PS-101 and PS-240 with a grade of Cor above.
Considers the basic concepts of behavior management, including behavior modification for exceptional and normal populations.
Other or on demand and every year. 3 Credits

## PS-320 Development of Thinking and Knowing

Prerequisites: PS-101 and PS-210 with a C- or above. This course will examine the development of human thinking and knowing from Piagetian, information processing and sociocultural perspectives, with an emphasis on infancy and childhood.
Spring only and every year. 3 Credits

## PS-322 Psychology of Aging

Prerequisites: PS-101, and PS-210 or IS 160 with a Cor above.
Adulthood and the aging process are studied with special emphasis on current developmental theories. Every year. 3 Credits

## PS-325 Psychology of Learning

Prerequisites: PS-101 with a grade of C - or above. Learning as a fundamental concept in understanding behavior; examines principles and theories of learning, emphasizing experimental findings. Fall and Spring and every year. 3 Credits

PS-326 Psychological Distress and Well-Being LASC Categories: ICW, HBS
Prerequisites: PS 101-General Psychology and PS 240-Introduction to Abnormal Psychology. Psychology Majors must pass pre-requisite courses with a C- or higher
A broad range of topics will be examined in relation to the knowledge base of psychological distress and well-being. This course will address cultural, systemic, and individual factors in risk and resilience in the manifestation and maintenance of psychological distress and well-being. Spring only and every year. 3 Credits

## PS-330 Theories of Personality LASC Categories: HBS

Prerequisites: PS 101-General Psychology and either PS 240-Introduction to Abnormal Psychology or PS 210-Developmenral Psychology. Psychology Majors require a C - or higher in each pre-requisite course. A survey of major theories of personality. Why people think, feel, and behave as they do is explored through the different theories.
Fall only and every year. 3 Credits
PS-340 Psychological Testing and Measurement LASC Categories: ICW, QR
Prerequisites: PS-101, PS-240, and PS-275. Psychology majors need a grade of C- or above. How do psychologists evaluate individual characteristics like extroversion, depression, and inattention? How do mental health providers and researchers administer psychological assessments and interpret their results? This class will explore the theory and practice of psychological testing, including sections on ethics and controversies around standardized testing, measurement theory, and clinical assessment.
Spring only and every year. 3 Credits

## PS-345 Cognitive Psychology

LASC Categories: WAC
Prerequisites: PS-101 PS-275 PS-276 with a grade of C- or above and EN-102
This course introduces students to areas of cognitive psychology including memory, language processing and decision making.
Fall and Spring and every year. 3 Credits

## PS-355 Social and Personality Development <br> LASC Categories: HBS

Prerequisites: PS-210. (Majors must pass with a C- or better)
This course will examine social and personality development from various developmental psychology perspectives. Attention is given to the development of self, attachment, emotions, and others in the social context such as family and peers.
Fall only and every year. 3 Credits

## PS-365 Cultural Psychology

LASC Categories: TLC, HBS, WAC
Prerequisites: PS-101, EN-102, PS-210 with a C- or above.
This course addresses the role culture plays in human psychological processes and approaches to researching cultural aspects of human action. Other or on demand and every 2-3 years. 3 Credits

## PS-385 Motivation

## LASC Categories: HBS

Prerequisites: PS-101 and PS-240 with a grade of Cor above.
A study of conditions that arouse, direct and sustain behavior. Topics include: goals, competence, control, arousal, self-esteem, achievement and stress. Other or on demand and every year. 3 Credits

## PS-391 Clinical Psychology

LASC Categories: HBS
Prerequisites: PS-101 and PS-240 with a grade of Cor above.
Topics include current controversies in clinical psychology, the ethics of mental health treatment, clinical research methods, cultural competency in practice, clinical diagnosis, and treatment approaches with an emphasis on humanistic, cognitive, and behavioral styles.
Fall only and every year. 3 Credits

## PS-400 Internship in Psychology

Provides opportunity to advanced students to increase experience through internship with sponsoring community organization, institution, or business under appropriate supervision.
Fall and Spring and every year. 1-3 Credits
PS-405 Independent Study: Topics in Psychology Prerequisites: PS 101 and either PS-275, or PS-276, with a grade of C - or above.
Student will pursue an area of special interest in psychology under close supervision of a faculty member.
Fall and Spring and every year. 1-3 Credits

## PS-407 Advanced Research in Psychology Psychology

Prerequisites: PS-101 PS-275 and PS-307. Take PS-205 or PS-276.
Advanced lab and/or field based research on a specific research topic under the supervision of a faculty member. Written report required.
Fall and Spring and every year. 1-3 Credits

## PS-408 Directed Study: Psychology

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## PS-409 Honors Thesis Research

Prerequisites: PS-275 and PS-276 and PS-307 with a C- or above.
As part of the Psychology Department Honors program, students design and carry out advanced, independent lab and/or field based research on a specific research topic under the supervision of a faculty member. Written report required. Fall and Spring and every year. 3 Credits

PS-410 Capstone: Seminar in Developmental Psychology
LASC Categories: CAP
Prerequisites: PS-101 PS-210 PS-275 PS-276 and
PS-307 with a grade of C- or above. Take PS-312 or
PS-322 and PS-325 or PS-345 with ah grade of C- or above. Take PS-230 or PS-380 with a grade of C- or above. Take 3 electives from PS-310, PS-318, PS-320, PS-355, PS-400 with a grade of C- or above.
Patterns of physical, mental and emotional development are explored with emphasis on independent work.
Fall only and every year. 3 Credits
PS-450 Capstone: Contemporary Issues in Psychology
LASC Categories: CAP
Prerequisites: PS-101 PS-275 PS-276 PS-307 with a C - or above. Take six additional courses in the major with a C- or above.
A Capstone course dealing with recent and emerging topics, issues, and methods in psychological science. Content and format varis with instructor.
Fall and Spring and every year. 3 Credits
PS-492 Capstone Seminar in Mental Health Services: Transition to Practice
LASC Categories: CAP
Prerequisites: All core courses in the Psychology major and three other psychology courses.
Psychology Majors must earn a C- or above in all prerequisite courses.
A capstone course addressing the transition from coursework to practice in mental health services.
Spring only and every year. 3 Credits

## PS-495 Special Topics: Psychology

Prerequisites: PS-101 with a C- or above.
Selected areas of mutual interest to instructor and students. Topics and prerequisites are announced in advance.
Other or on demand. 3 Credits

## Program Learning Outcomes

Goal 1 (Knowledge base in Psychology)
1.1. Use and evaluate theories to explain and predict behavior, including advantages and limitations in the selected framework
1.2. Explain complex psychological processes by integrating concepts developed from different content domains

Goal 2 (Scientific inquiry and critical thinking)
2.1. Use scientific reasoning to interpret psychological phenomena
2.2. Interpret, design, and/or conduct basic and/or applied psychological research
2.3. Understand and utilize appropriate quantitative and/or qualitative techniques to analyze and interpret research findings

Goal 3 (Ethical and social responsibility)
3.1. Describe, explain, and practice ethical standards and integrity within the context of psychology as a discipline and profession
3.2. Identify how issues of power, privilege, and discrimination shape psychological theories, psychological processes, behavior, and social interaction

## Goal 4 (Communication)

4.1. Demonstrate effective writing through clear and concise written communication for various audiences
4.2. Demonstrate effective oral communication for various audiences

## Goal 5 (Professional development)

5.1. Collaborate successfully on projects
5.2. Demonstrate self-regulation through selfreflection, the incorporation of feedback from educators and peers to improve performance, and social interaction
5.3. Apply psychological content and skills to career goals

## Human Development Minor Requirements for Psychology Majors and Minors

| Code | Title | Credits |  |  |
| :--- | :--- | ---: | :---: | :---: |
| PS-210 | Developmental Psychology | 3 |  |  |
| PS-312 | Psychology of Adolescence | 3 |  |  |
| PS-322 | Psychology of Aging | 3 |  |  |
| Take 3 courses from the following: | 9 |  |  |  |
| PS-310 |  | Development of Exceptional |  |  |
|  | Children/Youth |  |  |  |


| PS-320 | Development of Thinking and <br> Knowing |
| :---: | :--- |
| PS-355 | Social and Personality <br> Development |
| PS-400 | Internship in Psychology <br> (approved by Developmental <br> faculty) |

- PS-101 is required for all the courses in the Human Development minor, however it will count toward the Psychology major or Psychology minor, and not toward the Human Development Minor.
** No courses in the Human Development minor can also count in any way toward the Psychology major or Psychology minor.

Total Credits

## Requirements for NonPsychology Majors or Minors

| Code | Title | Credits |
| :--- | :--- | ---: |
| PS-101 | General Psychology | 3 |
| PS-210 | Developmental Psychology | 3 |
| PS-312 | Psychology of Adolescence | 3 |
| PS-322 | Psychology of Aging | 3 |
| Take 2 courses from the following: | 6 |  |
| PS-310 | Development of Exceptional <br> Children/Youth |  |
| PS-320 | Development of Thinking and <br> Knowing |  |
| PS-355 | Social and Personality <br> Development |  |
|  | Internship in Psychology <br> (approved by Developmental <br> faculty) |  |

Total Credits
18

## Minor in Mental Health Services <br> Mental Health Minor

The Minor in Mental Health Services offers an opportunity for students to focus in the areas of: (1) risk and resiliency factors impacting individual mental health, and (2) mental health services including clinical assessment and treatment practices.

The first Minor in Mental Health Services track is for students who are majoring in psychology and want to specialize in the area of mental health services. This track fulfills the common prerequisites of graduate programs in clinical psychology, counseling psychology, and social work, thereby making the minor ideal for those students who are considering mental health service provision as a career choice. Psychology majors cannot count the Mental Health Service minor towards their MajorPlus requirement.

Mental Health Minor Program Requirements for Psychology Majors

| Code | Title | Credits |
| :---: | :---: | :---: |
| PS-240 | Introduction to Abnormal Psychology | 3 |
| Elective Courses |  | 15 |
| PS-315 | Physical and Sexual Abuse |  |
| PS-318 | Behavior Management Techniques |  |
| PS-330 | Theories of Personality |  |
| PS-326 | Psychological Distress and Well-Being |  |
| PS-340 | Psychological Testing and Measurement |  |
| PS-385 | Motivation |  |
| PS-391 | Clinical Psychology |  |
| PS-400 | Internship in Psychology ((only pre-approved clinical internships)) |  |
| Total Credits |  | 18 |

* PS-101 is required for all the courses in the Mental Health Services minor. It will count toward the Psychology major OR Psychology minor, but not towards the Mental Health Services Minor.
** No courses in the Mental Health Services minor can also count in any way toward the Psychology major or Psychology minor.

Psychology majors cannot count the Mental Health
Service minor towards their MajorPlus requirement.
The second minor track is for non-psychology majors. This track is a complement to other fields of study where knowledge of individual and social factors impacting well-being, abnormal psychology, and mental health services systems would be beneficial.

Mental Health Minor Program Requirements for non-Psychology Majors

| Code | Title | Credits |
| :--- | :--- | ---: |
| PS-101 | General Psychology | 3 |
| PS-240 | Introduction to Abnormal <br> Psychology | 3 |
| or PS-335 |  | 12 |
| Electives | Physical and Sexual Abuse |  |
| PS-315 | Behavior Management <br> Techniques |  |
| PS-318 | Psychological Distress and <br> Well-Being |  |
| PS-326 | Theories of Personality |  |
| PS-330 | Psychological Testing and <br> Measurement |  |
| PS-340 | Motivation |  |
| PS-385 | Clinical Psychology <br> PS-391 | Internship in Psychology <br> ((only pre-approved clinical <br> internships)) |
| PS-400 |  |  |

Total Credits
18

## Psychobiology Minor

Psychobiology, the study of human and animal biology and behavior, is an interdisciplinary minor offered at Worcester State consisting of 6-7 classes (18-24 credits), with significant course contributions from the Biology and Psychology Departments. The Psychobiology minor allows students to explore the links between mind, body, and behavior, learning from accomplished faculty with expertise in the areas of neuroscience, animal behavior, human perception, cognition, and learning along with other specialties within psychology and biology.

Introductory courses include both Biology and Psychology, grounding students in the basics of both disciplines. Advanced courses provide an in-depth understanding of the nervous system, evolutionary biology, cellular physiology, and sensation and perception. Students will have the opportunity for hands-on learning to put course concepts into action.

All students are eligible to pursue the Psychobiology minor by following either the General Track or one of two specialized tracks: Biology Major Track or Psychology Major Track. These tracks are specialized
to assure that students who major in Biology and Psychology receive an appropriate breadth of experiences within the field of Psychobiology to complement their chosen major.

## Requirements for a Psychobiology Minor

General Track
(Available to all majors except Biology and Psychology)


Group B (300-level Psychology)

| PS-325 | Psychology of Learning |
| :--- | :--- |
| PS-230 | Brain and Behavior |

Group C (300-level Biology w/lab)

| BI-315 | Comparative Neurobiology |  |
| :---: | :--- | ---: |
| BI-360 | Animal Behavior |  |
| Capstone |  | $(\mathbf{2}$ |
| credits) |  |  |

## Biology Major Track (Only available to Biology majors)

| Code | Title | Credits <br> Core/Foundation |
| :--- | :--- | ---: |
| PS-101 | General Psychology | credits) |
| PB-200 | Introduction to | 3 |
|  | Psychobiology | 4 |
| PS-280 | Sensation and Perception | 3 |
| PS-325 | Psychology of Learning | 3 |
| PS-230 | Brain and Behavior | 3 |


| Capstone | (2 <br> credits) |  |
| :--- | ---: | ---: |
| PB-400 | Capstone in Psychobiology | 2 |
| Total Credits |  | 18 |

Psychology Major Track (Only available to Psychology majors)
Code Title Credits

Core/Foundation (20

| BI-116 | Animal Biology | 4 |
| :--- | :--- | ---: |
| PB-200 | Introduction to | Psychobiology |
|  | Human Biology | 4 |
| BI-200 | Comparative Neurobiology | 4 |
| BI-315 | Animal Behavior | 4 |
| BI-360 |  | 4 |
| Capstone |  | $(2$ |
|  | Capstone in Psychobiology | credits) |
| PB-400 |  | $\mathbf{2 2}$ |

Note: Completing this minor also satisfies the LASC requirements of HBSP, NSP w/ Lab (2x), and the capstone requirement.

## Psychology Major

Students may choose to simply major in psychology without a particular specialization (by completing the Requirements for a Major in Psychology) or may choose to major in psychology with a specialization by completing the requirements for a concentration in Mental Health Services (p. 444) or an Interdisciplinary Concentration in Women's Studies. They may also choose to minor in Psychology or Human Development (p. 444).

## Requirements for a Major in Psychology

The Psychology major requires successful completion of 12 courses in Psychology. Four of these courses are specific core requirements; four are from specified areas and the remaining four are electives. At least three courses (nine credits) must be at a 300 and/or 400 level, and all three courses must be taken at Worcester State University. The minimum of 37 credits must include the following four core courses:


| SELECT | General Elective | 3 |
| :--- | :--- | ---: |
|  | Credits | $\mathbf{1 5}$ |
| Semester Eight |  |  |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
|  | Total Credits | $\mathbf{1 2 2}$ |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Psychology Major, Concentration in Developmental Processes

This concentration provides background for students planning careers related to developmental disabilities, special education, child and adolescent services, or hospital and nursing home programs for the disabled or aging. Developmental Process is especially recommended for students in education.

## Requirements for a Major in Psychology, Concentration in Developmental Processes

43 credits

| Code | Title | Credits |
| :--- | :--- | ---: |
| Required Courses |  | $(25$ <br> credits) |
| PS-101 | General Psychology | 3 |
| PS-275 | Psychological Statistics | 4 |
| PS-276 | Research Methods | 3 |
| PS-307 | Applied Research Methods | 3 |

Select at least four of the following, including one 12 from each of the four different areas:
Developmental


Total Credits
43

## Psychology Major, Concentration in Mental Health Services

This concentration prepares students for graduate school and/or employment in agencies serving the mental health needs of special populations, including people with mental disabilities, addiction, and cognitive, emotional, and behavioral problems.

## Requirements for a Major in Psychology, Concentration in Mental Health Services

40 credits.

In addition to the four core and four area courses in psychology, the following courses are required:

| Code | Title | Credits |
| :---: | :---: | :---: |
| Required Courses |  | (25 |
|  |  | credits) |
| PS-101 | General Psychology | 3 |
| PS-275 | Psychological Statistics | 4 |
| PS-276 | Research Methods | 3 |
| PS-307 | Applied Research Methods | 3 |
| Select at least four of the following, including one from each of the four different areas: |  | 12 |
| Developmental |  |  |
| PS-210 | Developmental Psychology |  |
| PS-312 | Psychology of Adolescence |  |
| PS-322 | Psychology of Aging |  |
| Social Psychology |  |  |
| PS-250 | Social Psychology |  |
| PS-252 | Applied Social Psychology |  |
| Personality and Abnormal Psychology |  |  |
| PS-240 | Introduction to Abnormal Psychology |  |
| PS-330 | Theories of Personality |  |
| PS-340 | Psychological Testing and Measurement |  |
| Learning and Cognition |  |  |
| PS-325 | Psychology of Learning |  |
| PS-345 | Cognitive Psychology |  |


| Biopsychosocial Processes |  |
| :---: | :--- |
| PS-280 | Sensation and Perception |
| PS-222 | Introduction to Health |
|  | Psychology |

Concentration in Mental Health Services $\quad \begin{array}{r}\text { (18 } \\ \text { credits) }\end{array}$

| PS-330 | Theories of Personality | 3 |
| :--- | :--- | :--- |
| PS-335 | Abnormal Psychology | 3 |
| PS-340 | Psychological Testing and <br>  <br>  Measurement | 3 |


| Select one of the following: | 3 |  |
| :---: | :--- | :--- |
| PS-400 | Internship in Psychology |  |
| PS-318 | Behavior Management <br> Techniques |  |
| PS-315 | Physical and Sexual Abuse |  |
| PS-391 | Clinical Psychology 3 <br> PS-492 Capstone Seminar in Mental <br> Health Services: Transition <br> to Practice | 3 |

## Psychology Major, Interdisciplinary Concentration in Women's Studies

## Requirements for a Major in Psychology, Interdisciplinary Concentration in Women's Studies

15 credits

Psychology majors may elect an interdisciplinary concentration in Women's Studies beyond the requirements of the Psychology major. Five courses may be selected from any course with a "WO" prefix, from at least two disciplines.

| Code | Title | Credits |
| :--- | ---: | ---: | ---: |
| Required Courses |  | $(\mathbf{2 5}$ |
| credits) |  |  |


| Electives - At least three courses (nine credits) | 12 |
| :--- | ---: |
| must be at a 300 and/or 400 level, and all three |  |
| courses must be taken at Worcester State |  |
| University. |  |
| Women's Studies Requirements | $(15$ |
| credits) |  |
| Select 5 courses with a "WO" prefix from at least | 15 |
| two disciplines | 52 |
| Total Credits |  |

## Psychology Minor

Students may choose to minor in psychology without a particular specialization (by completing the Requirements for a Minor in Psychology).

## Requirements for a Minor in Psychology

The Psychology minor requires successful completion of six courses in Psychology. The minimum 18 credits must include:

| Code | Title | Credits |
| :--- | :--- | ---: |
| PS-101 | General Psychology | 3 |
| 15 credits in Psychology electives, including one | 15 |  |
| $300-400$ level course |  |  |

Total Credits

## Sociology

## Department of Sociology

The Sociology department strives to help its students develop insights about the workings of the social world and the influence of social structure. Its goal involves not just understanding the world, but working to change it. The departmental curriculum aims to help students uncover root causes of social problems and refine their personal understanding of social responsibility and economic justice. The Sociology department embraces the goals of personal, community, and global citizenship. Ultimately, the department strives to provide guidance and teaching designed to help students live better lives in an atmosphere of mutual respect.

As a department engaged in public sociology, faculty strive to teach in ways that stress critical thinking joined with action, to advise and mentor students to prepare for lifelong learning and meaningful careers, to encourage students and faculty to collaborate with peers and partners in the community and contribute to the field, and to engage in service to prepare Sociology majors to act in complex settings at home and at work, in their communities and the world. The department encourages majors and minors to participate in study away/study abroad activities.

## Admission Requirements

Admission to the Sociology major is based on maintaining acceptable grades in the general foundation requirements and interest in the field of Sociology. Interested persons may contact the Chair of the Sociology department for further information. Upon admission, each major is assigned an advisor and receives an orientation in Sociology.

- 4+1 Bachelor of Science in Sociology/Masters in Non-Profit Management (p. 451)
- Sociology Major (p. 452)
- Sociology Minor (p. 453)

Alex Briesacher, Associate Professor (2015), B.S., Illinois State University; M.A., Southern Illinois University Edwardsville; Ph.D., Kent State University

Siri J. Colom, Assistant Professor (2019), B.A., Tufts University; M.A., University of Massachusetts; Ph.D., University of California Berkeley

Michelle Corbin-Izaurralde, Professor (2011), B.S., Western Michigan University; M.S., Eastern Michigan University; Ph.D., University of Maryland

Francisco Vivoni, Department Chair, Associate Professor (2013), B.A., Universidad Puerto Rico, Rio Piedras; Ph.D., University of Illinois, Urbana

## Courses

## S0-100 Introduction to Sociology

LASC Categories: HBS, ICW
The nature of group behavior and social interaction viewed through analysis of structure, norms, and values.
3 Credits

## S0-110 Cultural Anthropology

Cross-cultural analysis of the human capacity for adaptation and technological and ideological development. Significant field studies will be examined.
3 Credits

## SO-190 Sport and Society

LASC Categories: HBS, USW, DAC, DIV
Analysis of sport as a social system. The implication of sport within interrelational contexts of other social systems.
Every year. 3 Credits

## SO-193 First Year Seminar Sociology

LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
3 Credits

## S0-199 Special Topics in Sociology

Foundations in a selected sub-field of sociology ; announcement made at pre-registration time. 3 Credits

## SO-200 Contemporary Social Problems LASC Categories: HBS, DIV, USW

This course studies how social problems come to be: students learn about what constitutes a social problem and who defines a social problem? Why do some social problems receive so much attention, while others are ignored? We will examine these questions drawing on case studies of contemporary issues, like inequality, racism, immigration, mass incarceration, health care, climate change, drugs, and more.
Every year. 3 Credits

## SO-201 Prejudice, Privilege, and Power LASC Categories: DIV, TLC, HBS, ICW

This course is an introduction to the social psychological foundations of identity and its relation to prejudice, privilege, and power in microinteractions and social structures. Students will engage with social psychological understandings of categorizations and their implications at the individual and structural levels.
Other or on demand and other or on demand. 3 Credits

## SO-207 First Generation to College: Campus Diversity and College Inequality <br> LASC Categories: HBS, ICW, DAC

First generation to college is a term for the increasing numbers of students who are first in their families to attend college. As college has been increasingly framed as the primary mechanism for social and economic mobility, college attendance has reached historic highs for nearly every demographic including for historically marginalized communities. This has created increasingly diverse campuses and it has increasingly bound colleges to broader patterns of inequality. This course examines the racial and economic politics facing first generation to college students as well as the structural inequalities shaping college and its promises of social and economic mobility.
Other or on demand and other or on demand. 3 Credits

## SO-215 Medical Sociology

LASC Categories: HBS, ICW
Prerequisites: SO-100
The structure of health care delivery systems and levels of health care personnel, patients, and families of patients.
3 Credits

## SO-220 Sociology of the Family

 LASC Categories: HBSA comparative approach to the study of the structure of family systems with emphasis on changing patterns of family life.
Every year. 3 Credits

SO-228 Latinx Experiences in the U.s. and the World LASC Categories: TLC, USW, DAC, DIV
This course surveys current theoretical approaches used to explain Latina/o experiences and provides an empirical overview of how social institutions affect the daily lives of Latinas and Latinos in the U.S. and the world.
Other or on demand. 3 Credits

## SO-230 Political Sociology

LASC Categories: HBS, GP
Prerequisites: SO-100
Foundations of social movements in political phenomena, social conditions, and emerging political institutions; the structural basis of social change and politics.
Other or on demand and every year. 3 Credits

## SO-235 Music and Social Change

LASC Categories: CA, HBS, TLC, ICW
Using case studies, social theory and historical materials, this course explores the role of music in social change.
Other or on demand. 3 Credits

## SO-240 Sociology of Education

Prerequisites: SO-100
Study of modern educational systems, emphasizing the social, political and economic factors that influence its organization and its functions.
3 Credits
SO-250 Sociology of Religion
LASC Categories: HBS, ICW, DAC
Prerequisites: SO-100
A cross-cultural comparative study of the nature of religious institutions as systems of socially determined and socially relevant beliefs and practices.
3 Credits

## SO-255 Sociology of Disability

LASC Categories: HBS, ICW, DAC
Using theory and practical application, this course explores the impact of impairment and disability within a societal context.
3 Credits
SO-270 Social Theory I
LASC Categories: TLC, GP
Prerequisites: SO-100
Fundamental concepts and intellectual traditions, especially the contributions of Comte, Spencer, Marx, Toennes, Durkheim, and Simmel.
3 Credits

## SO-275 Social and Behavioral Statistics LASC Categories: QAC

Prerequisites: SO-100 and any 200 Sociology course.
SO 280 recommended
Data tabulation; graphing; measurement of central tendency, variability, and correlation; hypothesis testing applied to psychological and sociological data. Hand and computer analysis.
3 Credits

## SO-280 Research Methods of Sociology Prerequisites: SO-100

An analysis of the research function in sociology; the conduct of research appropriate to undergraduate students; the formal presentation of research papers. 3 Credits

## SO-285 Race, Class and Gender <br> LASC Categories: HBS, DAC

An introduction to dominant-minority group relations through the investigation of the patterns and dynamics of differentiation, inequality and discrimination.
3 Credits
SO-295 Sociology of Death \& Dying
LASC Categories: DAC, HBS, ICW
Prerequisites: SO-100
The course explores the sociological concepts and perspectives as they relate to death and dying and how American society deals with illness, dying, death and bereavement.
3 Credits
SO-299 Special Topics in Sociology Concepts, Realities and Representations
Intermediate level topics.
Other or on demand. 3 Credits

## SO-300 Social Change

Prerequisites: 2 Sociology courses at 200 level, EN-102.
A study of the conditions, patterns, and consequences of social transformation with emphasis on institutional and individual patterns of adjustment and adaptation.
3 Credits

## SO-303 Environmental Sociology <br> LASC Categories: DIV, GP, HBS

This course explores the relationship between environment and society through a focus on political ecology, sociological dimensions of environmental crisis and dynamics of social change. Prerequisite: 30 completed credits.
Other or on demand and every year. 3 Credits
SO-305 Applied Sociology
LASC Categories: HBS, ICW
Prerequisites: SO-100 SO-280
This course approaches Applied Sociology through a project based learning experience incorporating elements of a Community Based Research Process and/or Public Sociology. While applied topics of the course will change from semester to semester, this course will explore the theories and methods of applied sociology, potentially including ethnographic, institutional, and participatory research techniques in community settings.
3 Credits

## SO-307 Puerto Rican Diaspora <br> LASC Categories: DIV, GP, USW

This course surveys a wide range of Puerto Rican experiences and provides an overview of how social structures shape the daily lives of Puerto Ricans in the United States. Through a focus on diasporas, the course centers on migration as a key experience within Puerto Rican imaginaries. The course explores the sociological themes of identity, race, ethnicity, language, gender, sexuality, social class, and stratification through the lens of Puerto Rican struggle and resistance. Puerto Rican diasporic communities are examined at the intersections of colonialism, modernity, and neoliberal globalization. Prerequisite: 30 completed credits.
Other or on demand. 3 Credits

## SO-312 Youth, Race, and Public Space LASC Categories: DIV, HBS, ICW

The course studies young people as agents of social change through key debates and local/global case studies across the academic subfields of youth studies, critical race theory, and public space scholarship. Students in this course engage with youth experiences of increased surveillance and regulation in public space as well as creative forms of subversion and resistance. Through the discussion and analysis of cutting-edge scholarship, students in this course craft critical ethnographies at the multiple intersections of youth, race, and public space. Prerequisite: 30 completed credits. Other or on demand. 3 Credits

## SO-315 Social Movements

Prerequisites: two Sociology courses at the 200 level Processes by which new norms and forms of social organization emerge from group behavior, aggregate behavior, and social movements.
3 Credits

## SO-318 Worcester and Its Discontents

 LASC Categories: DIV, HBS, ICWThis course studies the city of Worcester from a sociological perspective focused on settler colonialism, industrial capitalism and neoliberal gentrification. Students learn about the systematic erasure of indigenous knowledge as crucial to the formation of the capitalist city. Students make key connections between settler colonialism and the contemporary displacement of workingclass communities of color in Worcester. The course chronicles lived experiences of economic restructuring within Worcester that signal a meaningful shift from industrial powerhouse to postindustrial theme park. Prerequisite: 30 completed credits.
Other or on demand. 3 Credits

## SO-320 Sociology of Race and Ethnicity

LASC Categories: GP, USW, DAC, WAC, DIV
This course focuses on historical and contemporary discussions of Race and Ethnicity within Sociology. The course will familiarize students with central threads in the study of race and ethnicity and work to identify gaps, particularly as they are relevant for the academic and social sphere of today. Prerequisite: 30 completed credits.
Every year. 3 Credits

## SO-332 Contemporary Immigrant Experiences

LASC Categories: GP, USW
Prerequisites: EN-102.
In this course students will examine immigrants' lived experiences in the U.S., and learn about the legal systems immigrants must navigate and their experiences with incorporation into different areas of society. Students will be exposed to current debates in the field and engage with theories of immigration, immigration policies, and other laws that shape immigrants' lives. This course will facilitate an understanding of how communities respond to practices that curtail immigrants' basic rights as they navigate intersecting structures of power in American society. Students will be encouraged to look at local examples to make connections between policies, theories, and debates.
3 Credits

## S0-340 Social Psychology

LASC Categories: HBS, ICW, TLC
Prerequisites: 6 credits in Sociology.
This course explores the interplay between the individual and society by examining how social factors shape our thoughts, feelings, and behaviors. We will investigate the concept of the self as a product of society, as well as the self as a force in society.
Other or on demand and every 2-3 years. 3 Credits

## SO-350 Wealth, Poverty, and Power

LASC Categories: HBS, WAC, DAC, DIV, GP, TLC, USW
Sociological examination of economic stratification;
focuses on the translation of class into power via politics, education and collective struggle. Prerequisite: 30 completed credits.
Other or on demand. 3 Credits

## SO-355 Gender and Sexuality

LASC Categories: HBS, ICW, DAC
This course introduces the sociologist study of gender and sexuality. This course examines how social institutions and cultural norms construct particular gender roles and sexual identities within society.
3 Credits

## SO-360 Urban Sociology

LASC Categories: DIV, HBS, ICW, GP
A cross-cultural study of urban social systems and the phenomena and problems connected with the planning process. Prerequisite: 30 completed credits. Other or on demand. 3 Credits

## SO-375 Contemporary Social Theory

Prerequisites: SO-270
Analytical devices, conceptual schemes, and models used by contemporary theorists with emphasis on structural sociology.
3 Credits

## SO-400 Independent Study

For advanced sociology majors only; topic to be approved by an independent study advisor. (Requires eight prior courses in sociology.)
1-6 Credits

## SO-408 Directed Study

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
1-3 Credits

## SO-410 Field Work

Data collection based on participant observation within a social service organization; assignment approval by field-work advisor. (Requires eight prior courses in Sociology.) 1-6 Credits

## SO-420 Seminar in Sociology

Prerequisites: 9 credits from department Sociology. Advanced study topics in selected areas of Sociology.
1-3 Credits

## SO-425 Global Capitalism

LASC Categories: HBS, GP, WAC
Prerequisites: EN-102
This class will look at the development of capitalism from an historical, sociological, and critical perspective and consider the ways capitalism has made and unmade the world. Themes may include: imperialism and the underdevelopment of the Global South, decolonization struggles, global urbanization, global financial institutions, global labor struggles, war and capitalism, global environmental crises and the struggle over resources, and market hegemony. Every year. 3 Credits

## SO-499 Sociology Capstone

LASC Categories: CAP, WAC
Prerequisites: SO-270 SO-275 SO-280 EN-102
This course is an overview of the discipline of sociology, emphasizing the mastery of the discipline at an undergraduate level.
4 Credits

## Program Learning Outcomes

- Demonstrate and apply critical thinking skills in evaluating social theory
- Learn sociological methods
- Learn and understand social structure and social institutions
- Explore the reciprocal relationship between self and society
- Explore public sociology, including engagement with the world, activism, and social change
- Develop a deeper understanding of cultural variation (diversity)


## 4+1 Bachelor of Science in Sociology/Masters in NonProfit Management

Through a combined five year Bachelor of Science in Sociology/Master in Non-Profit Management program of studies, it is possible for motivated fulltime students who are Sociology majors to complete a five-year program leading to degrees including both a bachelor's degree in Sociology and a master's in Non-Profit Management.

Students who have completed 90 undergraduate credits may apply for admission into the special five-year B.S./M.S. program if they have an overall GPA of not less than 3.0 and a major GPA of not less than 3.25. Students are also required to complete an undergraduate internship, independent study, or capstone project that incorporates work with a community-based organization as part of their undergraduate work. Students must meet all other requirements for admission to the Master in NonProfit Management. The GRE requirement is waived for students with an overall GPA of 3.25 or higher.

Please also consult the graduate catalog for more information.

In order to complete the joint degree, students take 9-11 graduate credits, which count both in their undergraduate program and in the master's in nonprofit management. The graduate credits are taken in place of elective undergraduate credits. Graduate credits cannot replace required core or elective courses in the Sociology major. Students are advised by both the graduate coordinator and their undergraduate advisor. Admission is on a rolling basis, and applicants may start their program of study in any semester. These graduate credits are included in the undergraduate tuition of full-time state supported students.
Students must also take at least one summer class between the Spring of their BS graduation and the fall semester in which they embark on full-time graduate studies. Taking the graduate credits as an undergraduate and the summer class allows students to complete course requirements for the bachelor's and master's degree in five years ( 60 months). For more details, students should consult with the graduate coordinator of the program.

## Sociology Major

Requirements for a Major in Sociology
30 credits including:

| Code | Title | Credits |
| :--- | :--- | ---: |
| So-100 | Introduction to Sociology | 3 |
| So-270 | Social Theory I | 3 |
| SO-275 | Social and Behavioral <br> Statistics | 3 |
| SO-280 | Research Methods of <br> Sociology | 3 |
| A maximum of one course at the 100 level | 3 |  |
| A minimum of three courses at the 300 and/or <br> 400 level | $9-15$ |  |

All courses taken beyond the minimum requirements will be credited as electives.

## Sample Timetable for Completion of Degree

| Year One |  | Credits |
| :--- | :--- | ---: |
| Semester One |  | 3 |
| EN-101 | College Writing I | 3 |
| LASC | First-Year Seminar (FYS) |  |
|  | (p.50) |  |


| SO-100 | Introduction to Sociology | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective (QR) (p. 59) | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Semester Two

| EN-102 | College Writing II | 3 |
| :--- | :--- | ---: |
| SO | Any 100 or 200 level course <br> in major | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 4 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
|  | Credits | $\mathbf{1 6}$ |

## Year Two

Semester Three

| SO-270 | Social Theory I | 3 |
| :--- | :--- | ---: |
| SO-280 | Research Methods of <br> Sociology | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Semester Four

| SO-275 | Social and Behavioral <br> Statistics | 3 |
| :--- | :--- | ---: |
| SO-2XX | SO Major Elective | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | Credits | 15 |
| Year Three |  |  |
| Semester Five |  | 3 |
| SO-3XX+ | SO Major Elective | 3 |
| SO-1XX+ | SO Major Elective | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |


| Semester Six |  |  |
| :--- | :--- | ---: |
| SO-3XX + | SO Major Elective | 3 |
| SO-1XX + | SO Major Elective | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Year Four

Semester Seven

| SO-499 | Sociology Capstone (or LASC Capstone) | 4 |
| :---: | :---: | :---: |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 16 |
| Semester |  |  |
| SO-3XX+ | SO Major Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
|  | Total Credits | 122 |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Sociology Minor

## Requirements for a Minor

18 credits including:

| Code | Title | Credits |
| :--- | :--- | ---: |
| SO-100 | Introduction to Sociology | 3 |
| or SO-200 | Contemporary Social Problems |  |
| Select at least 15 credits of electives | 15 |  |
| All prerequisites for 300 and 400 level courses must |  |  |
| be met if the student wishes to elect courses at these |  |  |
| levels. |  |  |

## Theatre Major

The Theatre Major offers a 39-credit program that combines marketable, hands-on production experience with an extensive variety of coursework to prepare students for a career in live theatre production, its associated industries, or advanced graduate education. Students in the theatre program acquire essential skills and knowledge in performance, design, technology, and dramaturgy involved in the production and study of theatrical arts. An emphasis is placed on the practical techniques and the critical analysis necessary for successful productions.

As part of the new major's coursework, 24 credits come from required courses in Acting, Design, Technology, and Dramaturgy. The remaining credits are in the form of wide-ranging electives from across theatre's areas of study. Those studies complement required work on productions and a senior thesis project. For their capstone project, students can focus their studies on design and technology (scenic/costume/lighting/sound), dramaturgy, acting, or directing.

Fuller Theater and the scenic and costume shops serve as laboratories where students hone their skills on departmental and student productions.

The production season is chosen to provide students with exposure to a range of styles and genres, and opportunities for a diversity of students. Within this portfolio of productions, the program ensures that the work is relevant to our communities, speaks to our audiences, and is produced in styles that fire the audience's imagination.

Worcester State University also offers a Minor in Theatre (p. 454).

## Requirements for a Theatre Major

Required Core Courses

| Code | Title | Credits |
| :--- | :--- | ---: |
| TH-126 | Script Analysis | 3 |
| TH-145 | Acting I | 3 |
| TH-155 | First-Year Theatre Practicum | 1 |
| TH-175 | Introduction to Stagecraft | 3 |
| TH-235 | History of Theatre | 3 |
| TH-255 | Second-Year Theatre | 1 |
|  | Practicum |  |


| TH-263 | Concepts of Theatre Design | 3 |
| :--- | :--- | ---: |
| TH-274 | Stage Management | 3 |
| TH-355 | Third-Year Theatre <br> Practicum | 1 |
|  | Theatre Capstone | $\mathbf{3}$ |
| TH-455 |  | $\mathbf{2 4}$ |

Elective Courses - 15 credits total; 9 credits must be at the 300 -level or above.

| Code | Title | Credits |
| :--- | :--- | ---: |
| TH-191 | Introduction to the Theatre | 3 |
| TH-246 | Voice and Movement | 3 |
| TH-270 | History of American <br>  <br>  <br>  <br> Entertainment I | 3 |
| TH-271 | History of American <br>  <br>  <br>  <br> Entertainment II | 3 |
| TH-272 | History of Costume | 3 |
| TH-290 | Theatre for Young Audiences | 3 |
| TH-292 | Applied Theatre and | 3 |
|  | Community Engagement |  |
| TH-321 | Rehearsal and Performance | 3 |
| TH-345 | Acting II | 3 |
| TH-348 | Stage Combat | 3 |
| TH-360 | Scenic Design for Theatre | 3 |
| TH-370 | Costume Design for Theatre | 3 |
| TH-380 | Directing | 3 |
| TH-390 | Lighting Design for Theatre | 3 |
| TH-399 | Special Topics in Theatre | 3 |
| TH-405 | Independent Study in | $1-6$ |
| TH-408 | Theatre |  |
| TH-435 | Directed Study: Theatre | 3 |
|  | Internship in Theatre | $1-12$ |

## Theatre Minor

Recognizing the interdisciplinary nature of the arts and how the arts often integrate into and enhance students' study in other disciplines such as criminal justice, communication, business and psychology, the Visual and Performing Arts Department offers minors in its three disciplines of Art, Music, and Theatre. A minor in the arts allows students to further explore and develop their affinity for the arts and their artistic talents.

As a theatre minor, students complete courses covering an overview of theatre, acting and technical skills. Two additional courses are required in a student's chosen area of interest. Students also
participate in at least one stage production offering an opportunity to apply the learned skills in a fully realized stage production.

## Requirements for a Minor in Theatre

18 credits comprised of the following courses:

| Code | Title | Credits |
| :--- | :--- | ---: |
| TH-145 | Acting I | 3 |
| TH-175 | Introduction to Stagecraft | 3 |
| TH-191 | Introduction to the Theatre | 3 |
| TH-321 | Rehearsal and Performance | 3 |
| Select 2 additional 3 credit theatre courses | 6 |  |
| Total Credits | $\mathbf{1 8}$ |  |

## Visual and Performing Arts Department of Visual and Performing Arts

Aligning itself with the evolving trends of the $21^{\text {st }}$ century arts world, Worcester State University offers several programs for visual and performing arts students, including two majors, double majors for education students, and four minors.

The Major in Interdisciplinary Visual and Performing Arts is one of the few interdisciplinary arts majors in the country. With this major, students go beyond the standard coursework in art, music, and theatre to understand the larger world of visual and performing arts. WSU's VPA major allows students to gain an interdisciplinary view of the arts and an understanding of how to use one art form to inform the other, while also gaining an in-depth knowledge of the art forms that most excite them.

The interdisciplinary major is designed to provide students with a strong foundation in art, music, and theatre, and both a theoretical and practical understanding about how they interact in an interdisciplinary environment. Core courses promote critical thinking, and prepare students intellectually and creatively to complete their capstone/senior thesis projects and launch careers in the arts. Students craft the major to fit their areas of interest - art, music, theatre, etc. - through electives chosen in consultation with advisors. Students apply their
coursework to the production, performance, and critical study of creative work through a multitude of exhibit and performance opportunities.

Students interested in theatre can pursue studies through the new Major in Theatre or the Major in Interdisciplinary Visual and Performing Arts. The. Major in Theatre provides marketable, hands-on production experience with an extensive variety of coursework to prepare students for a career in live theatre production, its associated industries, or advanced graduate education.

Students interested in art can pursue studies through the new Major in Art or the Major in Interdisciplinary Visual and Performing Arts. The Major in Art emphasizes the integration of broad-based studio art training and arts research with the development of creativity, communication, and critical thinking to prepare students for graduate studies or careers in a wide range of arts-related fields.

- Art Major (p. 313)
- Art Minor (p. 313)
- Composition and Music Technology Minor (p. 406)
- Music Minor (p. 405)
- Theatre Major (p. 454)
- Theatre Minor (p. 454)
- Visual and Performing Arts and Education, Double Major (p. 490)
- Visual and Performing Arts Major (p. 489)


## Faculty

Michael C. Hachey, Professor (1993), B.F.A., M.F.A., Massachusetts College of Art

Stacey Parker, Professor (2007), B.F.A., Alfred University; M.F.A., Rochester Institute of Technology

Amaryllis Siniossoglou, Professor (2005), P.E.P., Royal College of Art, London; M.F.A., University of Massachusetts, Amherst; Diplome Superieur d' Art Plastique, School of Art, Athens

Kyle D. Martin, Professor (1998), B.M. Hardin-
Simmons University; M.M., D.M.A., Eastman School of Music

Carlos Odria, Assistant Professor (2020), B.A., M.Mus., Ph.D., Florida State University

Samuel O'Connell, Department Chair, Professor (2010), B.A., M.A., Washington University; Ph.D., Northwestern University

Adam Zahler, Professor (2007), B.A., University of Vermont; M.F.A., University of Virginia

## Art Courses

## AR-100 Cross Media Studio

LASC Categories: CA, TLC
An introduction to selected two- and threedimensional media through the exploration of a semester-long theme such as the human figure, or forms in nature.
Fall and Spring and every year. 3 Credits

## AR-105 Introduction to Animation

This hands-on introductory course covers the fundamentals and aesthetics of computer animation using the Adobe AfterEffects motion graphics program.
Fall and Spring and every year. 3 Credits

## AR-118 Global Art History

LASC Categories: GP, DAC, CA
Surveys the outstanding visual art from all cultures beginning in the prehistoric era to the late 19th century.
Fall only and every year. 3 Credits

## AR-119 First Year Art Practicum

This course offers students an opportunity to work closely with faculty to work in the art gallery, develop technical skills, studio projects, and do research to support their creative development. This course is required for the Art Major. It will be geared to the individual needs of each student.
Other or on demand and every year. 1 Credit

## AR-123 Design Fundamentals

LASC Categories: CA, QAC
Design Fundamentals is a course combining 2 and 3 Dimensional Design. In this course we explore composition, space, and color along with planes, volumes, and environments. A variety of materials are used to create on surfaces and in actual space. Many projects are grounded in aspects of mathematical and geometrical systems, e.g., grids, tiling, Fibbonaci series, fractals, regular solids.
Fall and Spring and every year. 3 Credits

## AR-130 Painting I

LASC Categories: CA
An introduction to the fundamentals of historical painting styles, techniques, and materials used, with emphasis on visual perception and expression Fall and Spring and every year. 3 Credits

## AR-140 Drawing Fundamentals

LASC Categories: CA, GP, DAC
The development of visual perception, technical skills, and individual expression in drawing media. Students will explore concepts in drawing to develop their artwork through observation, experimentation, awareness of historical and contemporary contexts, and critical assessment. Projects utilize a variety of drawing materials to demonstrate technical facility and to enhance self-expression.
Fall and Spring and every year. 3 Credits

## AR-150 Life Studio I

LASC Categories: CA
Focus on the human figure through different modes of drawing and painting. Attention to structure and anatomy and their expressive aspects.
Fall and Spring and every year. 3 Credits

## AR-165 Creating Cultural Forms

LASC Categories: CA, GP, WAC, DAC
Prerequisites: EN-102
A studio course. Concepts of art forms created by a variety of world cultures and art movements of the past and present.
Fall and Spring and every year. 3 Credits

## AR-191 Special Topics in Art

Introductory course to cover various topics.
3 Credits
AR-193 First Year Seminar in Art
LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Every year. 3 Credits

## AR-210 Drawing and Painting Studio LASC Categories: CA

This course is a comprehensive introduction to the art of drawing and painting. Students will be strongly encouraged to explore the skills and concepts of these art forms in order to develop their ideas through observation, experimentation, historical context, and analysis. Projects are designed to expand awareness and to expose students to contemporary concerns.
Fall and Spring and every year. 3 Credits

## AR-215 Topics in Art <br> LASC Categories: CA, GP

This course chooses a topic or a theme to explore in the classroom and studio for a semester. Students will read about this topic or theme and they will produce work in the studio inspired by their reading. Topics may include (but are not limited to): the figure in art, landscape art, abstract art, science and art, social sciences and art, religion and art, east meets west, arte povera, Dada art etc.
Fall only and every year. 3 Credits

## AR-219 Second Year Art Practicum Prerequisites: VP-200

This course offers students an opportunity to work closely with faculty to work in the art gallery, develop technical skills, studio projects, and do research to support their creative development. This course is required for the Art Major. It will be geared to the individual needs of each student.
Other or on demand and every year. 1 Credit

## AR-221 Studio Art Practicum LASC Categories: CA

This is the first in a set of three core courses for the Art major. This course focuses on practical and professional art skills including but not limited to the creation of professional documents like resumes, artist statements and proposals, professional internet presence such as websites and social media accounts, art critique work and gallery related content such as exhibition submissions and gallery representation.
Other or on demand and every year. 3 Credits
AR-225 Art Since Mid-20th Century
LASC Categories: CA, GP, WAC, DAC
Explores how artists have challenged the traditional definitions of the art object and the expanded materials, media and concepts employed by artists since 1950 to the present era. Fall only and every year. 3 Credits

## AR-230 Printmaking <br> LASC Categories: CA

Introduction to the techniques and aesthetics of etching and relief. Prints by major artists are examined.
Fall and Spring and every year. 3 Credits
AR-235 3D Sculpture Studio
LASC Categories: CA, GP, WAC
Prerequisites: EN-102
This is an introductory course focusing on form creation grounded in sculptural forms and techniques. Students will create sculpture by exploring traditional techniques such as molding, carving, casting and assemblage using historical and contemporary materials from clay and stone to cardboard and found objects. Historical context, skill development, critical analysis and proper tool usage and safety are emphasized.
Fall and Spring and every year. 3 Credits

## AR-240 Watercolor

LASC Categories: CA, TLC
A studio course exploring various techniques and expressive forms used by watercolorists of the past and present.
Fall and Spring and every year. 3 Credits

## AR-260 Visual Arts in the Schools <br> LASC Categories: CA

An exploration of art materials and concepts, and their appropriate use with children. Includes studio projects, art history, and educational theory. 3 Credits

## AR-270 Driftwood to Dumpsters

LASC Categories: CA, TLC, WAC
Prerequisites: EN-102
Students will learn about the history and practice of making art from non-traditional materials. This is a lecture and hands-on art course.
Every 2-3 years. 3 Credits

## AR-285 History of Photography

LASC Categories: CA, TLC
The history of photography from 1839 to present, with attention to styles, aesthetics, technical processes, and leading practitioners. [Cross-listed with CM-285]
Every 2-3 years. 3 Credits

## AR-308 Thesis Seminar LASC Categories: CA <br> Prerequisites: AR-221.

This course focuses on the research that prepares students for their Capstone. They will evaluate the work of other artists working in their media, make critical judgments about the work they experience in contemporary exhibitions, and present their ideas orally in class presentations. Students will also develop their studio art portfolio and capstone proposal.
Spring only and every year. 3 Credits

## AR-319 Third Year Art Practicum Prerequisites: AR-219

This course consolidates student studio skills, research expertise, and best practices for creative work. Students will initiate the development of a body of work that will lead to Capstone.
Other or on demand and every year. 1 Credit
AR-330 Intermediate Printmaking
Prerequisites: AR-230
Continuation of relief printmaking in an individual direction using tone/color and multiple blocks. Every year. 3 Credits

## AR-350 Special Topics in Art

Prerequisites: one studio course or consent of instructor.
A course covering topics which vary in response to specific student and faculty interest.
Fall and Spring and every year. 3 Credits

## AR-400 Ind Study: Art

An opportunity for further study in a special field of interest under faculty supervision.
Fall and Spring and other or on demand. 3 Credits

## AR-402 Internship in Art

An individual experience through internship with a sponsoring community organization, professional institution or individual, i.e., museums, galleries, artists.
Fall only and other or on demand. 3-6 Credits

## AR-408 Directed Study: Art

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Fall and Spring. 1-3 Credits

## AR-455 Thesis Capstone <br> LASC Categories: CAP

Pre-requisite: Completion of all other major requirements. Students design, and create their work for public presentation. This is the final course in the Art Major and is a requirement for all the majors.
Other or on demand and every year. 3 Credits

## Music Courses

MU-101 Fundamentals of Music and Aural Skills LASC Categories: CA
An introduction to reading and writing conventional music notation, the fundamentals of music theory, and basic aural skills. Emphasis will be placed on intervals, scales, chords, rhythmic values, sightsinging, melodic dictation, and aural recognition of intervals and chords.
Every year. 3 Credits

## MU-102 Applied Music <br> LASC Categories: ICW

Prerequisites: Audition required
Audition required. Private instruction in an instrument or voice. Thirteen weekly one-hour lessons. May be repeated. Studio fee required. Instruments offered: brass, guitar, piano, percussion, strings, and winds. Fall and Spring and every year. 1 Credit

## MU-104 Class Piano

LASC Categories: CA
Prerequisites: MU-100 or MU-101
Basic piano technique and pedagogy in a group setting of 12 or fewer
Fall and Spring and every year. 1 Credit

## MU-106 Class Guitar

An introduction to playing the guitar, including technique, reading tabs and notation, and harmonization of melodies with chords. Solo literature appropriate to the level will be studied. Students are required to provide an instrument.
Fall and Spring and every year. 1 Credit
MU-115 Music Appreciation
LASC Categories: CA
General survey of masterpieces of major composers of various periods in history of music. Fall and Spring and every year. 3 Credits

## MU-120 Ear Training

Prerequisites: MU-100 or MU-101
An introductory course in the fundamentals of eartraining and sight-singing. Emphasis will be placed on the development of basic melodic, harmonic, and rhythmic aural skills through listening, dictation, and application of solfege.
Every year. 3 Credits

## MU-125 Jazz Appreciation

LASC Categories: CA, TLC
Surveys the history of jazz beginning with the earliest roots in the American South to today.
Every year. 3 Credits

## MU-140 World Music <br> LASC Categories: CA

An introduction to music of various cultures and continents including music of Africa, Asia, Latin America, the Middle East, and India.
Spring only and every 2-3 years. 3 Credits

## MU-175 Music in America

Survey of music history and literature in America including gospel spirituals, jazz, popular and classical music.
Other or on demand. 3 Credits

## MU-185 Composition I

LASC Categories: CA
Prerequisites: MU 101 Fundamentals of Music Aural Skills OR MU 100 Music Fundamentals
An introduction to compositional methods and techniques. Students develop personal expression by creating musical works while exploring use of melody, harmony, timbre, rhythm, texture, and tonality within conventional musical forms.
Spring only and every year. 3 Credits

## MU-193 Special Topics in Music:First Year Students

 LASC Categories: FYSIntroductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
Every year. 3 Credits

## MU-200 Issues in Music

This course deals with topics of special interest, in both seminars and studio environments at an introductory level.
3 Credits

## MU-202 Applied Music

## Prerequisites: Audition Required

Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week. Student fee required. May be repeated. Offered every semester.
Fall and Spring and other or on demand. 1 Credit
MU-205 Music Theory I
LASC Categories: CA
Prerequisites: MU-100 or 101.
Analysis and application of harmonization techniques using diatonic chords. Further emphasis is placed on voice-leading, figured bass, melodic construction, and embellishing tones.
Spring only and other or on demand. 3 Credits

## MU-215 Chorus and Music Theory

LASC Categories: CA
Prerequisites: Audition Required
Mixed choral repertoire and performance, covering vocal problems and techniques. Introduction to music theory, rhythms, intervals, basic chordal structures, harmonization. Participation in college chorus required.
Fall and Spring and every year. 3 Credits
MU-220 Chorus
LASC Categories: CA
Prerequisites: MU-215
Mixed Chorus repertoire. May be repeated.
Fall and Spring and every year. 0.5-1 Credits
MU-222 African Drumming
LASC Categories: GP, CA, DAC
An exploration of African music and drumming techniques from the culture of Ghana. Students will develop performance skills and present a public performance during the course of the semester. Every year. 0.5-3 Credits

## MU-223 African Drumming II

LASC Categories: CA, GP
Prerequisites: MU 222-African Drumming I, or MU
193-FYS African Drumming from Ghana
This Level 2 ensemble builds on Level 1 in the following ways: (a) learn new drumming styles; (b) improvise with greater freedom; and (c) learn to play lead drum rhythms, with the possibility of performing them in the final performance.
Spring only and every 2-3 years. 3 Credits

## MU-228 Piano Ensemble <br> LASC Categories: CA

Prerequisites: MU-102 or MU-190
A small ensemble for keyboard players who will learn, explore, and perform four- hand piano repertoire.
Every year. 1 Credit

## MU-231 Women in Music

LASC Categories: CA, TLC
A survey of the role of women in music, particularly the great composers from Medieval to Contemporary times.
3 Credits

## MU-237 Music in the Elementary School

LASC Categories: CA
Discover the benefits of using music to enrich general education from preschool through high school. Develop your own musicianship through learning to use your singing voice, learning to play the recorder, learning to read notation and gaining an overview of western music history.
Other or on demand. 3 Credits

## MU-250 Music of the Cinema:Spectacle, Splendor, And Spielberg <br> LASC Categories: CA, TLC

An introduction to the role, impact, and importance of music in motion pictures from silent movies through contemporary film.
Spring only. 3 Credits

## MU-275 Computers and Music

An introduction to computer music technologies with emphasis on use of electronics and computers in music composition and performance, Further emphasis will be placed on basic acoustics, perception of sound, application of computer music in experimental genres, digital recording, mixing, fundamentals of sound synthesis and digital signal processing.
Other or on demand and other or on demand. 3 Credits

## MU-280 History of Music <br> LASC Categories: CA

A general survey of western art music covering the historical periods of the Medieval, Renaissance, Baroque, Classical, Romantic, and 20th Century. Fall and Spring and every year. 3 Credits

## MU-285 Composition II

Prerequisites: MU-185 or MU-204, and MU-205. A continuation of Composition I. Students will explore methods of tonal composition Emphasis will be placed on melodic writing, harmonization practices, chord substitutions, use of figurations, texture, and timbre in tonal music. Experimentation with rhythmic and metric practices including asymmetry, shifting accents, changing time signatures, and ostinato.
Fall and Spring and every year. 1 Credit

## MU-300 Chorale

LASC Categories: CA
Prerequisites: Audition Required
Study and performance of a cappella choral literature from the Middle Ages to contemporary times. May be repeated. Audition required for enrollment. Every year. 0.5-1 Credits

## MU-302 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week. Student fee required. May be repeated. Offered every semester.
Fall only and every year. 1 Credit

## MU-305 Music Theory II

LASC Categories: CA
Prerequisites: MU-205
Harmonization of melodies using primary and secondary chords, harmonic analysis of tonal music from the Common Practice Period, including diatonic and chromatic chords, secondary dominants, modulation, and aural skills. An introduction to formal schemes in music including phrase structure, binary and ternary and form, sonata form, and species counterpoint.
Fall only and every year. 3 Credits
MU-310 The American Musical in Performance
Study, rehearsal and performance of a great
American musical. Music, acting and dance will all be skills which are developed.
Every 2-3 years. 3 Credits

## MU-321 Small Ensemble <br> LASC Categories: ICW, CA

The performance of musical works by a small ensemble. By permission of instructor or audition. Fall and Spring and every year. 0.5-1 Credits

## MU-326 Chamber Orchestra <br> LASC Categories: CA

In this class the students will rehearse and perform music from the orchestral repertoire in a variety of styles and genres and from varied periods. All woodwind, string, brass, keyboard and percussion instruments are eligible to participate. 1 credit section for those repeating the class in another semester and those in proposed revised music minor; . 5 credit section for VPA music concentrators Pre-requisite: Audition for Instructor
Fall and Spring and every year. 0.5-3 Credits

## MU-330 Jazz Ensemble

LASC Categories: ICW, USW, DAC
An ensemble where students learn to perform traditional jazz repertoire, as well as original compositions. Through rehearsing, performing, directed listening and ear training, students will learn: (a) conceptual approaches to improvising and composing; (b) harmonic, melodic and rhythmic theory specific to the jazz idiom; and (c) methods for connecting audiation to instrumental playing. Special emphasis will be on jazz standards, especially those with a blues form. 3 credits 1 credit if repeating . 5 for Visual and Performing Arts majors with music concentration or focus and those who minor in composition and music technology Fall and Spring and every year. 0.5-3 Credits

## MU-375 Sound Synthesis

Prerequisites: MU-275
A continuation of MU 275 Computers and Music. Focus on application of sound in composition acoustics and additive synthesis, modulation and waveshaping, signal flow, processing, digital filtering, reverberation, and sample processing.
Other or on demand and other or on demand. 3 Credits

## MU-385 Composition III

Prerequisites: MU 285/Composition II MU 305/Music Theory I (currently MU 210)
An exploration of compositional practices presented during Composition II. Students will compose absolute music in the style of the Common Practice Period as well as work with superimposed chords, shifting tonality, pandiatonicism, large-scale forms, polyrhythms, and polymeter, This course introduces to composing tonal music for non-musical genres including media, video games, incidental music for theater and film.
Other or on demand and every year. 1 Credit

## MU-400 Independent Study in Music

Prerequisites: Consent of Instructor
An opportunity for further study in a special field of interest under faculty supervision.
Fall and Spring and every year. 1-6 Credits

## MU-402 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week. Student fee required. May be repeated. Offered every semester.
Fall and Spring. 1 Credit

## MU-408 Directed Study: Music

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## MU-410 Special Topics in Music

This course will allow members of the music faculty to develop courses of special interest. This would include seminars on specific composers or compositions, in both classroom and applied studio enviorments.
0.5-3 Credits

## MU-485 Composition IV

Prerequisites: MU-385
Compositional techniques of the 20th-century including modality, parallelism, atonality, serialism, electronic music, aleatory, music concrete, and sound synthesis.
Other or on demand and other or on demand. 1 Credit

## Theatre Courses

## TH-126 Script Analysis

LASC Categories: CA, TLC, DAC
Script analysis for theatre artists. How to take a script from initial reading to production.
Other or on demand. 3 Credits

## TH-145 Acting I

LASC Categories: CA
Introductory acting theory and practice. Students present brief monologues and scenes in class. Fall and Spring and every year. 3 Credits

## TH-155 First-Year Theatre Practicum

Practical work in Theatre production for first-year students.
Fall and Spring and every year. 1 Credit

## TH-175 Introduction to Stagecraft

LASC Categories: CA, QR
An introductory class to major types of Stagecraft for live theatre. Students will learn in formal classes and in 30 hours of scheduled laboratories about set construction, costume construction and lighting technology. Students will learn the vocabulary of technical theatre and will learn geometric and mathematical methods required for each of the three main areas covered.
Fall and Spring and every year. 3 Credits

## TH-191 Introduction to the Theatre

LASC Categories: CA
An overview of live performance, with the emphasis on audience appreciation. Performance arts and crafts are examined.
Fall and Spring and every year. 3 Credits
TH-193 Special Topics in Theater.First-Year Students LASC Categories: FYS
Introductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar. Every year. 3 Credits

## TH-235 History of Theatre LASC Categories: GP, TLC, DAC

Survey of world theatre including from its ritual origins through the classical era, medieval era, the renaissance, the restoration, the modernist revolution to the present day. This global approach includes historical examples from Europe, Africa, Asia, North America, and South America.
Fall and Spring and every year. 3 Credits

## TH-246 Voice and Movement

Prerequisites: TH-145.
Training to strengthen the natural voice, develop diction, learn period movement and develop spatial awareness on and off stage.
Every year. 3 Credits

## TH-255 Second-Year Theatre Practicum

Practical work in Theatre production for second-year students.
Every year. 1 Credit

## TH-263 Concepts of Theatre Design <br> LASC Categories: CA

This is a fundamental design course for live theatre, but will also apply to other design fields. Drawing, both freehand and digital, will be studied. Students will learn the elements and principles of design, and how to apply them to Scenic, Costume and Lighting Design, as well as other modes of 2-dimensional and 3-dimensional art. Additive and subtractive color theory will be covered. Students will learn the specialized language of design and will study how to approach the three areas of design aforementioned. Other or on demand and every year. 3 Credits

## TH-270 History of American Entertainment I <br> LASC Categories: CA, USW

An historical survey of American popular entertainments from the Colonial period through the end of the nineteenth century.
Every year. 3 Credits

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## TH-272 History of Costume LASC Categories: CA

The history of clothing from ancient times to the present. Lecture/discussion and a research project on a chosen era or culture.
Every 2-3 years. 3 Credits

## TH-274 Stage Management LASC Categories: CA, QAC

An introduction to the craft of stage management focussing on the techniques, responsibilities and duties necessary to manage both rehearsals and performances.
Every year. 3 Credits

## TH-290 Theatre for Young Audiences

LASC Categories: ICW, CA, DAC
Organization of children's theatre, script selesction, visual design, rehearsal and performance.
Investigation of creative drama as a teaching tool in elementary education.
Spring only and other or on demand. 3 Credits
TH-292 Applied Theatre and Community Engagement LASC Categories: CA, ICW
Principles and techniques of leading improvised dramatic activities with children and adults. Involves sensory awareness, imagination, movement and story dramatizations.
Every year. 3 Credits

## TH-321 Rehearsal and Performance

LASC Categories: CA
Public performance of full-length stage productions under faculty direction. Students assume
performance and/or production "roles" as described in departmental manual.
Spring only and every year. 3 Credits

## TH-345 Acting II

Prerequisites: TH-191 TH-145
Further development of acting skills with emphasis on stage-acting technique.
Every year. 3 Credits

## TH-348 Stage Combat

LASC Categories: CA, ICW
Prerequisites: TH-191 or TH-145.
Training in armed and unarmed combat for the stage. emphasis will be placed on safety in the choreography of stage fighting.
Every year. 3 Credits

## TH-355 Third-Year Theatre Practicum

Practical work in Theatre production.
Fall and Spring and every year. 1 Credit

## TH-360 Scenic Design for Theatre <br> LASC Categories: CA

Scenic Design for Theatre will include research, drafting, drawing and rendering, model building and presentation of scenic designs for assigned plays. Every year. 3 Credits

## TH-370 Costume Design for Theatre <br> LASC Categories: CA

Conceptualization, collaboration, research, figure drawing and rendering, swatching, and presentation of costume designs for assigned plays.
Every year. 3 Credits

## TH-380 Directing

Prerequisites: TH-145 and TH-191
Script selection, casting, scene analysis, blocking, rehearsal techniques and other concerns of the theatrical director. Students direct a short scene and short plays.
Every 2-3 years. 3 Credits

## TH-390 Lighting Design for Theatre

LASC Categories: CA
Study and exercises in conceptualization, collaboration, design presentation, qualities and functions of light, drafting the light plot, and control of theatrical lighting.
Every year. 3 Credits

## TH-399 Special Topics in Theatre

Will include study of topics on an as needed basis, (i.e. in conjunction with a production, or a course for advanced students who wish to pursue further study).
Other or on demand and other or on demand. 3 Credits

## TH-405 Independent Study in Theatre

Offers motivated students the opportunity to study a theatre topic not covered in the established curriculum.
Other or on demand and other or on demand. 1-6 Credits

## TH-408 Directed Study: Theatre

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## TH-435 Internship in Theatre

Provides an opportunity for students in good standing to gain practical experience with professional theatre or related organizations. Other or on demand and other or on demand. 1-12 Credits

## TH-455 Theatre Capstone <br> LASC Categories: CAP, WAC

Prerequisites: TH-155 and TH-255 and TH-355
Theatre students will create a senior thesis project/ capstone in acting, directing, design, playwriting, craft or dramaturgy, chosen in consultation with a faculty advisor and demonstrating the skills learned in their studies. The capstone may be part of a mainstage production or a student generated project. Each capstone project will be accompanied by a written analysis showing their research or fulldocumentation of their process.
Fall and Spring and every year. 3 Credits

## Visual and Performing Arts Courses

VP-155 First Year Practicum
Students will put into practice interdisciplinary concepts, ideas, and techniques at an experiential level.
Spring only and every year. 1 Credit
VP-193 Special Topics in Visual and Performing Arts:
First-Year Students
LASC Categories: FYS
Introductory level courses covering topics of special interest to first-year students. Offered only as FirstYear Seminar.
Every year. 3 Credits
VP-200 Critical Thinking in the Arts
LASC Categories: CA, TLC, DAC, QAC
The experience of art, music, and theatre to develop individual critical thinking in the similarities and differences among the arts.
Every year. 3 Credits
VP-210 Contemporary Dance Styles I
LASC Categories: CA
The study and movement of dance vocabularies in one or more contemporary and modern styles. Every year. 3 Credits

## VP-255 Second Year Practicum

Prerequisites: VP-155
Students will put into practice interdisciplinary concepts, ideas, and techniques at a exploratory level.
Spring only and every year. 1 Credit

## VP-355 Third Year Practicum

Prerequisites: VP-155 and VP-255
Students will put into practice interdisciplinary concepts, ideas, and techniques at an experimental level.
Spring only and every year. 1 Credit

## VP-364 Interdisciplinary Arts Theory

Prerequisites: VP-200
An exploration of interdisciplinary art theory drawing on theories and critical writings from Art, Music, and Theatre from a variety of historical periods.
Fall and Spring and every year. 3 Credits
VP-365 Interdisciplinary Arts Practice
Prerequisites: VP-200
Examines examples of contemporary modes of interdisciplinary works of music, theatre, and visual art with the goal of developing an individual, creative aesthetic.
Spring only and every year. 3 Credits
VP-405 Independent Study in the Arts
Prerequisites: Permission of Instructor
An opportunity for advanced students to examine topics not ordinarily covered in other arts courses. Every year. 1-6 Credits

VP-408 Directed Study: Visual \& Performing Arts
Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## VP-410 Special Topics in the Arts

Study of topics not otherwise covered in the curriculum. [Prerequisite: [2 VP courses]
Fall and Spring and every year. 3 Credits
VP-435 Internship in the Arts
Advanced students gain practical experience in a working arts environment.
Fall and Spring and every year. 3-12 Credits

## VP-455 Arts Capstone/Senior Thesis

LASC Categories: WAC, CAP
Prerequisites: VP-200, and EN-102
Students design and create a work or works of art, music, or theatre for public presentation.
Every year. 3 Credits

## Program Learning Outcomes

## Art

- Acquire the principles of art and design.
- Demonstrate knowledge of traditional and contemporary art practices.
- Cultivate aesthetic and conceptual judgments.
- Develop skills in critical thinking and analysis.
- Demonstrate effective written, oral, and visual communication skills.
- Produce artwork in a variety of media and techniques.


## Theatre

- Acquire the critical language for the analysis and interpretation of theatre
- Demonstrate aesthetic literacy over historical periods and cultures that pertain to the production and interpretation of theatre
- Apply theoretical knowledge and concepts to the creation and critical analysis of theatre
- Utilize critical thinking skills in the production of theatre


## Visual and Performing Arts

- Acquire the critical language for the analysis and interpretation of art forms
- Demonstrate aesthetic literacy over historical periods and cultures that pertain to the production and interpretation of art
- Apply theoretical knowledge and concepts to the creation and critical analysis of art forms
- Utilize critical thinking skills in the production of creative work


## Urban Studies

## Department of Urban Studies

The goal of the Department of Urban Studies is to foster an understanding of the complex challenges that face an increasingly urban and metropolitan world. The field of Urban Studies uses an interdisciplinary approach to understand metropolitan life. It immerses students in an academically rigorous and personally challenging course of study that helps them discover who they are, and how they can become change agents in this global society. The Urban Studies Department cultivates the development of critical thinking skills necessary to excel in today's competitive world. Urban Studies graduates enjoy outstanding careers in a wide variety of occupations, such as, public administration, policy development, nonprofit management, urban planning, business, law, human services, health care management, housing management, gerontology and social work.

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- 4+1 Program in Urban Studies / Master of Public Administration and Policy (MPAP) (p. 473)
- 4+1 Program in Urban Studies / Master of Public Management (MPM) (p. 474)
- Gerontology Minor (p. 475)
- Social Work and Social Policy Minor (p. 475)
- Urban Studies Major (p. 476)
- Urban Studies Major, Concentration in Public Policy and Urban Planning (p. 477)
- Urban Studies Major, Concentration in Social Work and Social Policy (p. 478)
- Urban Studies Minor (p. 478)


## Faculty

Thomas E. Conroy, Professor (2010), B.A. Salem State University; M.A., Ph.D. University of Massachusetts, Amherst

Shiko Gathuo, Professor (2005), B.Ed. Kenyatta University; M.B.A. University of Nairobi; Grad Certificate, M.S., Ph.D. University of Massachusetts, Boston

Danielle Morales, Assistant Professor (2022), B.S. Renmin University of China; M.S., Ph.D. Texas A\&M University

Timothy E. Murphy, Department Chair, Associate Professor (2013), B.A. Indiana University; M.A., Ph.D. University of California, Davis

Adam Saltsman, Associate Professor (2016), B.A. Colby College; M.A., Ph.D. Boston College

Courses

## UR-101 Introduction to Urban Studies LASC Categories: USW, HBS

This course offers a broad contextual overview of urban life that examines the relationship between humans and their environment.
Fall and Spring and every year. 3 Credits
UR-103 Introduction to Women's Studies LASC Categories: DAC, ICW, HBS
This course uses a variety of academic disciplines to study the situation of women around the world. Every year. 3 Credits
UR-142 Practicum in Urban Studies-Introductory
Students engage in field-based experiential learning through collaboration with WSU faculty and community partners. By stepping out of the classroom, students gain concrete skills that empower them to be agents of change while building a social and professional network of peers and community members. Practicum courses at this level are introductory experiences to field-based learning.
There is no cost associated with this course.
Other or on demand and every year. 1-3 Credits
UR-150 Introduction to City Research
LASC Categories: USW, HBS
This course introduces students to various forms of quantitative and qualitative research processes that are employed in exploring city systems, histories, and groups. It also brings students into the field to practice and develop their burgeoning skills in an Urban Studies lab, the city. As part of their coursework, students will contribute to active research projects in Citylab.
Fall and Spring and every year. 3 Credits
UR-191 Special Topics
Introductory course to cover various topics Other or on demand and other or on demand. 3 Credits

## UR-193 First Year Seminar Urban Studies LASC Categories: FYS

Every year. 3 Credits

## UR-201 Introduction to Urban Policy

LASC Categories: HBS, DIV
Analysis of activities, programs, and policies designed to sustain and enhance the livability of an urban environment.
Fall and Spring and every 2-3 years. 3 Credits

## UR-212 American Metropolitan Evolution

LASC Categories: USW, WAC
Prerequisites: UR-101 and EN-102
Development of metropolitan America from a multi-disciplinary approach with emphasis upon dynamics of urban growth, internal development of cities, immigrations, socio-economic stratification, metropolitanization, and problems deriving from growth.
Fall and Spring and every 2-3 years. 3 Credits

## UR-213 Human Identity and Urban Environment LASC Categories: DAC

Prerequisites: UR-101
This course addresses a number of learning outcomes, including: studying historical experiences, cultural patterns, and social advantages and disadvantages of different groups within society; exploring social problems such as racism, sexism, homophobia, and other forms of prejudice, discrimination, and exploitation as both mainstream and non-mainstream groups experience them; examining the diversity of different groups and their changing dynamics; helping students become knowledgeable about diversity issues and develop the ability to distinguish facts from interpretations and opinions; become familiar with materials written by and about diverse groups.
Spring only and every year. 3 Credits

## UR-214 Urban Demography <br> LASC Categories: DIV, HBS, QR

Urban Demography is a course designed to introduce students to the study of population dynamics in urban settings. The course will cover a range of topics, such as the growth and characteristics of urban populations, relationships between urbanization and the three demographic processes (fertility, mortality, and migration), social disparities, residential segregation, housing, and population policy. Through lectures, discussions, in-class activities, and assignments, students will gain a deep understanding of the factors that shape urban population dynamics, and the implications of these dynamics for urban planning and policy. By the end of the semester, students will be familiar with various theories.
Alternating and every 2-3 years. 3 Credits
UR-217 Child Advocacy
LASC Categories: ICW
This course will introduce students to the basic structure of Child Advocacy. Over the semester, students will establish an understanding of existent legal protocol which represents children who constitute what is recognized as "at risk" populations and how it works in action.
Alternating and every 2-3 years. 3 Credits
UR-220 Immigrant City
LASC Categories: ICW, DIV
This course will explore the important role that immigrants have played in the development of our society, with a particular focus on our cities. We will discuss why and how people move, the forces that shape their opportunities and the constraints on their lives, and how a world increasingly defined by migration is changing everything. Alternating and every 2-3 years. 3 Credits

UR-221 Introduction to Social Work
Prerequisites: College Writing II or permission of department chair.
Prerequisites or Corequisite: UR-101 previously or concurrently.
This course introduces students to the changing concepts, terms, and theories, about the field and practice of Social Work, how social workers interact with individuals and society, and the different roles social workers play in our diverse, ever-changing society. It is structured to provide students with the historical and current understanding of the role of social work practitioners, and it requires that students examine their own concepts, beliefs, and ideas of what "social work" and "social worker" means. These experiences will enhance student's skills in cognitive thinking, reading, writing, and speaking.
Fall only and every year. 3 Credits
UR-230 Technology, Public Policy and Urban Society
LASC Categories: HBS, WAC, ICW
Prerequisites: EN-102
Examination of high-technology and its impact on urban society in areas such as provacy, ethics, intellectual property rights, sense of community, and access to information and services.
Spring only and every year. 3 Credits

## UR-232 Quantitative Data Analysis of Urban Problems

LASC Categories: QR
An introduction to methods of developing and examining quantitative information, widely used by planning practitioners and often structuring how issues are framed for public/private discussions and policy decisions. Learn to apply tools of historical and predictive quantitative analysis to all aspects of land use planning and policy, both theoretical, what we expect to happen based on certain assumptions, and empirical, verifying those theoretical relationships by analyzing relevant evidence using mathematical techniques. We will examine and correlate the relationship between data, assumptions, and the leading issues planners and their cities face in today's world.
Alternating and every year. 3 Credits
UR-235 Urban Topics Seminar
An examination of urban topical issues that challenge the intellectual and creative interests of mid-curriculum students in urban studies. Other or on demand and every year. 3 Credits

## UR-240 Introduction to Qualitative Research Methods for the Social Sciences <br> LASC Categories: HBS, WAC <br> Prerequisites: EN-102

This introduction course provides and overview of the research process, and introduces students to commonly used qualitative methods in the social sciences.
Every year. 3 Credits
UR-242 Practicum in Urban Studies-Intermediate Students engage in field-based experiential learning through collaboration with WSU faculty and community partners. By stepping out of the classroom, students gain concrete skills that empower them to be agents of change while building a social and professional network of peers and community members. Practicum courses at this level reflect intermediate-level engagement with fieldbased learning. There is no cost associated with this course.
Other or on demand and every year. 1-3 Credits

## UR-250 Introduction to Urban Planning <br> LASC Categories: ICW

An exploration of planning theory, dynamics, and practice, and how they form the modern urban planning agenda.
Fall only and every year. 3 Credits

## UR-270 Leadership in Nonprofit and Public Organizations LASC Categories: HBS

The course explores the not-for-profit sector and the macro-environment within which it operates. The not-for-profit sector is used to describe nonprofit organizations and public organizations. The course explores traditional and popular approaches to leadership and the application of these theories in the not-for-profit world. Additionally, the course will review various important areas within the not-for-profit world (the micro-environment) including strategic planning, fundraising, marketing, governance and financial management.
Other or on demand and other or on demand. 3 Credits

## UR-280 The Queer City <br> LASC Categories: GP, DIV

This course is an introduction to the study of same-sex sexualities, their meanings and social organizations, across cultures and through time. The materials for the course are drawn from an array of disciplines, from biology to history, but center upon cultural and urban anthropology. Students will learn to think critically about the role of culture and society in the construction of genders and sexualities worldwide, with an emphasis on urban contexts. Fall only and every 2-3 years. 3 Credits

## UR-285 Urban Anthropology LASC Categories: GP

Students in this course will become familiar with urban anthropology through an exploration of ethnography - the study of peoples, cultures, and power dynamics from the perspective of an insider. By investigating ethnographic fieldwork and ethnographic writing from our globalizing world, students will be introduced to a number of different accounts about peoples and cultures - some struggling and some thriving - in cities spanning the globe. Through this diverse sample of lived, urban environments, students will become critical thinkers about the role of culture and society in the construction of the city.
Fall only and every 2-3 years. 3 Credits
UR-290 Gender and the City
LASC Categories: WAC, GP, HBS
Prerequisites: EN-102
Exploration of the ways in which gender, both male and female, structures responses of individuals to urban life and spaces.
Every 2-3 years. 3 Credits
UR-301 Cities and Suburbs
Prerequisites: UR-101
Multi-disciplinary study of city and suburban growth patterns and problems both of the past, and that hamper metropolitan cooperation and affect the quality of life for city and suburban residents and businesses.
Every 2-3 years. 3 Credits
UR-305 Group Conflict in the Urban Community Prerequisites: UR-101
Study of conflict and its resolution in contemporary urban settings. Personal, small group, and societal strategies for conflict resolution will be explored. Fall and Spring and every 2-3 years. 3 Credits

## UR-306 Interviewing and Counseling Techniques

Investigation of skills and process of interviewing and counseling with emphasis upon theory and practice, participant exercises, and development of helping skills and effective counseling relationships. Every 2-3 years. 3 Credits

## UR-310 Power, Politics and Decision-Making in Urban Communities

Prerequisites: UR-101
Exploration from multi-disciplinary approach of social power and its relation to decision-making in urban communities. Emphasis on theories of power, understanding research methodologies, and policy implications.
Every 2-3 years. 3 Credits

## UR-311 Urban Politics and Policies

LASC Categories: HBS
Prerequisites: UR-101
Political behavior and perceptions in cities and towns from a multi-disciplinary perspective with emphasis on how policy is initiated, developed, and implemented in various governmental forms. Spring only and every 2-3 years. 3 Credits

## UR-312 Worcester.A City \& Its People <br> LASC Categories: USW, DIV

Prerequisites: any 100 level course in Urban Studies. This Urban History class explores the histories of Worcester's different peoples and their stories, many that are left out of what might be called official Worcester history. Students will read and research various primary and secondary sources, explore different approaches to studying and creating history, conduct fieldwork, and create papers or projects about the city's lesser-known and lesser-told histories, groups, individuals, and events.
Fall only and every 2-3 years. 3 Credits

## UR-315 Oral History for Urban Areas LASC Categories: TLC

Prerequisites: College Writing II or permission of department chair. Any 100-level Urban Studies course or permission of instructor
In its simplest terms, Oral History is the collection and study of historical information using audio or video recordings of interviews with people having personal knowledge of past events. Often powerful and rich personal narratives, oral histories provide insight into a past event or series of events, often communicating unofficial or previous unknown/ misunderstood stories especially in Urban areas. This class explores the theoretical underpinnings of memory and remembering, and best practices for oral history. Students will also engage in oral history work including interviewing, recording, transcribing, analysis, and preparing oral histories for research and dissemination.
Spring only and every 2-3 years. 3 Credits

## UR-319 Transportation Planning

## LASC Categories: GP, ICW

Prerequisites: 30 credits. It is recommended that students take UR 250 (Urban Planning) or a GIS or Cultural Geography class in the Department of Earth, Environment, and Physics before taking this course. This course examines the policy, politics, planning, and design of transportation systems in urban areas, with a special focus on Massachusetts. It covers the roles of the federal, state, and local governments and MPOs. It will also overview planning for different modes (e.g. public transit, auto, active travel), tools for transportation planning and policy analysis, transportation impacts such as air pollution, social costs, and climate change, land use and transportation interactions, and citizen participation and citizen needs in the transportation planning process.
Spring only and every 2-3 years. 3 Credits

## UR-320 Power and Urban Insecurity LASC Categories: ICW

This class looks at how public policy relates to the social construction of race, class, and gender categories and how urban residents navigate such policies as part of their everyday struggle for survival and stability. We consider how popular discourse features dominant narratives of security, insecurity, and human worth when it comes to questions of how the social safety net is allocated. How do these narratives contribute to the way urban residents experience and interpret government on an everyday level? How do these narratives affect the way urban residents interact with the state and public institutions?
Every 2-3 years. 3 Credits

## UR-321 Advanced Social Work

Prerequisites: UR-101 and UR-221.
This course is designed to build upon basic social work skills, and enhance students' understanding about the changing concepts, terms, and theories, about what the field and practice of Social Work is. It is an more in depth examination of the approaches used by social work professionals in assessing and meeting the needs of increasingly diverse, complex and complicated populations.
Spring only and every year. 3 Credits

## UR-331 Crime and the City

LASC Categories: HBS
Prerequisites: UR-101
Investigation of crime in contemporary urban society and the social, legal, economic, and cultural strategies for dealing with crime and deviance. Other or on demand. 3 Credits

## UR-332 Global Cities

LASC Categories: GP
For the first time in history, urban dwellers outnumber those in rural areas in the world population. Why are people increasingly flocking to cities? And what are some of the impacts of this shift on populations in different parts of the globe? As cities grow to accommodate their swelling numbers, dynamics of both inclusion and exclusion are bound up in processes of change and development. This course addresses these issues by exploring a variety of topics associated with urban exclusion, such as displacement, development, climate change, changing family dynamics, the informal sector, housing, inequality, and forms of resistance to exclusion.
Alternating and every 2-3 years. 3 Credits

## UR-340 Urban Housing Dilemma <br> Prerequisites: UR-101

Analysis of the factors that shape the nature, location, and supply of urban housing with special focus on federal policies and the housing needs of elders.
Every 2-3 years. 3 Credits

## UR-347 Refugees in American Society LASC Categories: USW

This course assesses the place of refugees in United States cities, historically and currently. We look at the experience of refugees in the US, relevant policies pertaining to this population, and the various popular debates circulating about refugee settlement and asylum in the US. The course also explores the nature of exile, displacement, and struggle in relation to urban inclusion and exclusion.
Alternating and every 2-3 years. 3 Credits

## UR-350 Urban Youth in American Society Prerequisites: UR-101

Role and problems of youth in urban societies viewed from a variety of social science perspectives with additional employment of contemporary music and literature.
Other or on demand. 3 Credits

## UR-360 Environmental Systems and Public Policy Prerequisites: UR-101

Examination of urban ecosystems, focusing on land uses designed to effectively utilize water, open space, and other natural resources.
Other or on demand. 3 Credits
UR-361 Public Policy and Environmental Issues Prerequisites: UR-101
Investigation of the factors that determine the formation of public policy on the environment with consideration of the roles played by state and federal regulatory agencies.
Other or on demand. 3 Credits

## UR-380 Public Policy and Cultural Diversity

LASC Categories: HBS, USW
Prerequisites: UR-101
This course examines contemporary policy issues to support inclusion in diverse societies. Topics addressed include race, socioeconomic status, gender, sexuality, ethnicity, disability, religion, immigration, segregation, and affirmative action. Fall and Spring and other or on demand. 3 Credits

## UR-390 Research Methods in Urban Studies Prerequisites: UR-101

This course will provide an overview of the research process, and review commonly used qualitative and qualitative methods in the social sciences. The course will cover the what, how, and when of qualitative interviews, key informant interviews, focus group discussions, story narratives, ethnographic research, observations, participatory action research, document review and survey research. It will also cover the ethical dimension of research. No prior research knowledge or experience will be assumed. Other or on demand and every year. 3 Credits

## UR-401 Research Seminar in Urban Studies Capstone

Prerequisites: UR-101, UR-212, UR-213, and UR-390 and have completed 75 credits.
Research skills for urban-based projects including techniques in gathering, analyzing, and reporting data and various forms of field research.
Fall only and every year. 3 Credits

## UR-408 Directed Study: Urban Studies

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
1-3 Credits

## UR-410 Independent Study

Prerequisites: UR-101
Individual or small group directed research into selected problems and issues in urban affairs. Fall and Spring and other or on demand. 3 Credits

## UR-421 Selected Topics in Urban Studies

Prerequisites: UR-101 Or permission of instructor In-depth examination of topical issues challenging the intellectual and creative interests of advanced students in urban studies.
Fall and Spring and other or on demand. 3 Credits

## UR-430 Seminar in Current Urban Problems

Prerequisites: UR-101
Individual and group investigation and research of selected and current urban problems.
Fall and Spring and other or on demand. 3 Credits

## UR-440 Practicum in Urban Studies

Directed experiential study for advanced students. Other or on demand and every year. 1-3 Credits

## UR-442 Immigration Law Practicum

Students will collaborate with WSU's partner the Student Clinic for Immigrant Justice to provide legal services to Worcester area immigrants, especially asylum seekers, in need of legal aid. This practicum will be run through the Urban Studies Department and in partnership with the Student Clinic for Immigrant Justice, which also runs a 40-hour training every fall, and which provides ongoing supervision for students who complete the training and who are paired with immigration law attorneys. Prerequisite: Students who enroll in this class must first complete an immigration law training offered every fall semester through a partnership with the Student Clinic for Immigrant Justice and then request permission from the instructor to enroll.
Fall and Spring and every year. 1-3 Credits

## UR-450 Internship: Urban Studies

Supervised and intensive semester-long experience in community agencies, including weekly group seminar. (Requires completion of 21 credits in Urban Studies and consent of instructor.)
Fall and Spring and every year. 3-12 Credits

## Program Learning Outcomes

- Students will conduct advanced interdisciplinary research incorporating a variety of source materials, research concepts, methodological approaches, and technological resources.
- Students will critically assess research studies and produce publishable papers, studies, reports, presentations, and projects.
- Students will learn how to be part of a supportive intellectual community driven in collaboration, professionalism, ethical research standards, and best practices in writing, research, and peer mentoring.
- Students will compare and contrast experiences of urbanization from different cultural, demographic, and geographic perspectives -- locally, regionally, nationally, and globally -and will analyze them from different theoretical viewpoints.
- Students will develop interdisciplinary, critical reading and creative thinking skills, and advanced written and interpersonal communication skills.
- Students will demonstrate proficiency in creative problem-solving through coursework, experiential learning, and the development of a spirit of inquiry.
- Students will complete service- and experiential learning opportunities through coursework with department faculty, expert practitioners, and community partners.
- Students will engage in career-oriented experiences that prepare them for leadership roles in their fields through service learning coursework, internships, practica, and independent studies.
- Students will develop empathy for the greater understanding of the range of human experience and social responsibility with emphasis on intergenerational and intercultural dynamics.


## 4+1 Program in Urban Studies / Master of Science in Nonprofit Management (NPM)

Through a combined five year Bachelor of Science in Urban Studies/Masters in Nonprofit Management program of studies, it is possible for motivated fulltime students who are urban studies majors to complete a five-year program leading to degrees including both a Bachelor's degree in Urban Studies and a Master's in Nonprofit Management. Urban Studies minors may qualify for the program as well.

Students who have completed 90 undergraduate credits may apply for admission into the special fiveyear BS/MS program if they have an overall GPA of not less than 3.0 and a major GPA of not less than 3.25. Students are also required to complete an undergraduate internship, independent study, or capstone project that incorporates work with a community-based organization as part of their undergraduate work. Students must meet all other requirements for admission to the Master in Nonprofit Management. The GRE requirement is waived for students with an overall GPA of 3.25 or higher.

Please also consult the graduate catalog for more information.

In order to complete the joint degree, in the final year of their bachelor's work, students take three graduate level courses (9-11 credits) which are counted toward both the undergraduate and graduate degree requirements. These graduate credits are included in the undergraduate tuition of full-time, state-supported students. Students must also take at least one summer class between the spring of their BS graduation and the fall in which they embark on full-time graduate studies. Taking the graduate credits as an undergraduate and the summer class allows students to complete course requirements for the bachelor's and master's degree in five years (60 months). For more details, students should consult with the graduate coordinator of the program.

Students enrolled in Urban Studies (majors and minors) may apply for the joint 4+1 program with the Master of Science in Nonprofit Management (NPM). The following are the eligibility requirements:

1. Applicants must have completed 90 undergraduate credits.
2. Applicants must have a minimum 3.25 GPA in their majors.
3. Applicants must have an overall minimum 3.0 GPA.
4. Applicants must have completed an undergraduate internship, independent study or capstone project related to a nonprofit organization.
5. Two letters of recommendation

In order to complete the joint degree, students take 9-11 graduate credits, which count both in their undergraduate program and in the master's in nonprofit management. The graduate credits are taken in place of elective undergraduate credits. Students get advising from both the graduate coordinator and their undergraduate advisor. Admission is on a rolling basis and applicants may start their program of study in any semester.

| Code | Title | Credits |
| :--- | :--- | ---: |
| NM-901 | The Nonprofit World: NGOs, <br> the State \& Civil Society | 3 |
| NM-934 | Ethics and Management of <br> Human Resources | 3 |
| NM-942 | Organizational Theory | 3 |
| NM-945 | Financial Management for | 3 |
|  | Non-Profit Organizations |  |


| NM-949 | Strategic Leadership and <br> Planning | 3 |
| :--- | :--- | :---: |
| NM-951 | Grant Writing | 4 |
| NM-980 | Thesis I | 1 |
| NM-981 | Thesis II | 4 |
| NM-990 | Action Research | 3 |
| NM-993 | Marketing and Resource | 3 |
| Two (2) ELECTIVES required | 6 |  |
| Total Credits |  | 36 |

## 4+1 Students

Graduate core courses will count as core classes in the graduate program and electives in the student's undergraduate program. Graduate electives will count as electives in both the graduate and undergraduate programs.

MS in Nonprofit Management - A student may take any three of the following core courses and any courses offered as graduate electives: NM-901, NM-903, NM-934, NM-942, NM-945, NM-949, NM-951, NM-993

## 4+1 Program in Urban Studies / Master of Public Administration and Policy (MPAP)

Students enrolled in Urban Studies (majors and minors) may apply for the joint $4+1$ program with the Master of Public Administration and Policy. The following are the eligibility requirements:

1. Applicants must have completed 90 undergraduate credits.
2. Applicants must have a minimum 3.25 GPA in their majors
3. Applicants must have an overall minimum 3.0 GPA
4. Two letters of recommendation

Students are encouraged to take introductory courses in political science, statistics and economics before graduating from their undergraduate programs since these courses are prerequisites for full matriculation into the MPAP. A course in financial accounting is also highly recommended.

Students achieve matriculation only after they obtain their undergraduate degree. The prerequisite requirements must be completed by then.

In order to complete the joint degree, students take 9-11 graduate credits, which count both in their undergraduate program and in the MPAP. The graduate credits are taken in place of elective undergraduate credits. Students get advising from both the graduate coordinator and their undergraduate advisor. Admission is on a rolling basis and applicants may start their program of study in any semester.


Two (2) ELECTIVES required
Total Credits

## 4+1 Students

Graduate core courses will count as core classes in the graduate program and electives in the student's undergraduate program. Graduate electives will count as electives in both the graduate and undergraduate programs

Master of Public Administration and Policy (MPAP)

- A student may take any three of the following core courses and any courses offered as graduate electives: PA-901, PA-903, PS-934, PA-942, PA-945, PA-949, PA-951


## 4+1 Program in Urban Studies / Master of Public Management (MPM)

Students enrolled in Urban Studies (majors and minors) may apply for the joint 4+1 program with the Master of Public Management (MPM). The following are the eligibility requirements:

1. Applicants must have completed 90 undergraduate credits.
2. Applicants must have a minimum 3.25 GPA in their majors.
3. Applicants must have an overall minimum 3.0 GPA.
4. Two letters of recommendation

Students are encouraged to take introductory courses in political science, management, and economics before graduating from their undergraduate programs since these courses are prerequisites for full matriculation into the MPM. A course in financial accounting is also highly recommended. Students achieve matriculation only after they obtain their undergraduate degree. The prerequisite requirements must be completed by then.

In order to complete the joint degree, students take 9-11 graduate credits, which count both in their undergraduate program and in the MPM. The graduate credits are taken in place of elective undergraduate credits. Students get advising from both the graduate coordinator and their undergraduate advisor. Admission is on a rolling basis and applicants may start their program of study in any semester.

| Code | Title | Credits |
| :--- | :--- | ---: |
| Master of Public Management | $(36$ <br> credits) |  |
| CORE COURSES |  |  |
| PM-901 | Project Management for <br> Public Organizations |  |


| PM-903 | Economics for Policy <br> Analysis | 3 |
| :--- | :--- | :--- |
| PM-934 | Ethics \& Management of <br> Human Resources | 3 |
| PM-942 | Organizational Theory | 3 |
| PM-945 | Financial Management for <br> Public Organizations | 3 |
| PM-949 | Strategic Leadership <br> \& Planning for Public <br> Organizations | 3 |
| PM-951 | Negotiation \& Conflict <br> Resolution for Public | 3 |
| PM-980 | Organizations | Management Project <br> Fieldwork I for Public <br> Management |
| PM-981 | Management Project <br> Fieldwork II for Public | 2 |
| PM-990 | Management | 4 |
| Two (2) ELECTIVES required Research |  |  |

## 4+1 Students

Graduate core courses will count as core classes in the graduate program and electives in the student's undergraduate program. Graduate electives will count as electives in both the graduate and undergraduate programs

Master of Public Management (MPM) - A student may take any three of the following core courses and any courses offered as graduate electives: PM-901, PM-903, PM-934, PM-942, PM-945, PM-949, PM-951

## Gerontology Minor

Students must take the 4 required courses and 2 electives. At least 1 course must be at 300 -level or higher.


| HC-220 | Health Policy |
| :---: | :--- |
| HC-345 | Introduction to the U.S. |
| Health Care System |  |

Total Credits
18
***A single semester of UR 142/242, UR 315 , \& PS 400/SO 410/UR 450 can only be used to fulfill either the experiential learning requirement or an elective. Students can opt to take UR 142/242 or PS 400/ SO 410/UR 450 more than once to fulfil more than 1 requirement.

## Social Work and Social Policy Minor

Requirements for a Minor

Code Title Credits
Required Courses

| UR-101 | Introduction to Urban | 3 |
| :--- | :--- | :--- |
| UR-221 | Studies | 3 |
| UR-213 | Introduction to Social Work | 3 |
| or UR-320 | Human Identity and Urban |  |
| or UR-380 | Environment | Public Policy and Cultural Diversity |


| Elective Courses - take 2 courses (must include 300- <br> level course) | 6 |
| :--- | :--- |
| UR-220 | Immigrant City |
| UR-305 | Group Conflict in the Urban <br> Community |
| UR-306 | Interviewing and Counseling <br> Techniques |
| UR-311 | Urban Politics and Policies |
| UR-321 | Advanced Social Work |
| UR-340 | Urban Housing Dilemma <br> UR-347Refugees in American <br> Society |
| UR-350 | Urban Youth in American <br> Society |
| UR-390 | Research Methods in Urban <br> Studies |

Experiential Learning (take 1 course) 1-12

| UR-142 | Practicum in Urban Studies- <br> Introductory (1-3 cr.) |
| :---: | :--- |
| UR-242 | Practicum in Urban Studies- <br> Intermediate (1-3 cr.) |
| UR-315 | Oral History for Urban Areas <br> $(3$ cr. $)$ |
| UR-450 | Internship: Urban Studies <br> $(3-12 ~ c r)$. |

Total Credits

## Urban Studies Major

Requirements for the Major
36 credits.
All Urban Studies majors are required to take the following courses:

| Code | Title | Credits |
| :--- | :--- | ---: |
| UR-101 | Introduction to Urban | 3 |
| UR-212 | Studies | 3 |
|  | American Metropolitan <br> Evolution | 3 |
| UR-213 | Human Identity and Urban <br> Environment | 3 |
| UR-320 | Power and Urban Insecurity | 3 |
| UR-390 | Research Methods in Urban <br> Studies | 3 |
| UR-401 | Research Seminar in Urban <br> Studies Capstone | 3 |
| SELECT | UR Electives | 18 |
| Total Credits |  | $\mathbf{3 6}$ |

6 Students are encouraged to take community-based experiential courses, including practicum and internship. These course credits may not exceed a total of 12 , three of which may count towards the major. Students may take the internship after completing 18 credits in the major. The practicum can be taken at any time, upon permission of department.

## Sample Timetable for Completion of Degree: Urban Studies

Year One

| Semester One |  | Credits |
| :--- | :--- | ---: |
| EN-101 | College Writing I | 3 |
| LASC | First-Year Seminar (p. 50) | 3 |
| UR-101 | Introduction to Urban | 3 |
|  | Studies |  |
| LASC | LASC Elective (QR) (p. 59) | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
|  | Credits | $\mathbf{1 5}$ |

Semester Two

| EN-102 | College Writing II | 3 |
| :--- | :--- | ---: |
| UR | Any 100 or 200 level course <br> in major | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 4 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
|  | Credits | $\mathbf{1 6}$ |

## Year Two

## Semester Three

|  | Major elective approved by |
| :--- | :--- | ---: |
| advisor |  | 3


| Year Three |  |  |
| :--- | :--- | ---: |
| Semester Five |  | 3 |
| UR-320 | Power and Urban Insecurity | 3 |
| UR | Any 200 or 300 Level Course | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| LASC | LASC Elective (TLC) (p. 61) | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Semester Six

| UR-390 | Research Methods in Urban <br> Studies | 3 |
| :--- | :--- | ---: |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| UR | Major elective approved by <br> advisor | 3 |
| UR | Major elective approved by <br> advisor | 3 |
| SELECT | General Elective | 3 |
| Year Four | Credits | $\mathbf{1 5}$ |
| Semester Seven |  |  |


| UR-401 | Research Seminar in Urban |  |
| :--- | :--- | ---: |
|  | Studies Capstone |  |
|  | Course recommended by | 3 |
| UR | Advisor | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Semester Eight |  | $3-12$ |
| UR-450 | Internship: Urban Studies | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | $\mathbf{3}$ |
|  | Credits | $\mathbf{1 5 - 2 0}$ |
|  | Total Credits | $\mathbf{1 2 1 - 1 2 6}$ |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Urban Studies Major, Concentration in Public Policy and Urban Planning

Requirements for a Major in Urban Studies, Concentration in Public Policy and Urban Planning:
Code Title Credits

Urban Studies Major Requirements
(18

|  |  |  |
| :---: | :---: | :---: |
| UR-101 | Introduction to Urban Studies | 3 |
| UR-212 | American Metropolitan Evolution | 3 |
| UR-213 | Human Identity and Urban Environment | 3 |
| UR-320 | Power and Urban Insecurity | 3 |
| UR-390 | Research Methods in Urban Studies | 3 |
| UR-401 | Research Seminar in Urban Studies Capstone | 3 |
| Urban Studies Electives |  | $\begin{array}{r} (6 \\ \text { credits) } \end{array}$ |


| Select elective courses for 6 credits. | 6 |  |
| :--- | ---: | ---: |
| Required Courses for Concentration | $(12$ <br> credits) |  |
| UR-201 | Introduction to Urban Policy | 3 |
| UR-250 | Introduction to Urban | 3 |
|  | Planning |  |

Experiential Learning Course (Internship or 3
Practicum)
Select one of the following: 3

| UR-310 | Power, Politics and <br> Decision-Making in Urban <br> Communities |
| :--- | :--- |
| UR-311 | Urban Politics and Policies |
| UR-319 | Transportation Planning |
| UR-340 | Urban Housing Dilemma |
| UR-361 | Public Policy and |
|  | Environmental Issues |
| UR-380 | Public Policy and Cultural |

UR-430 Seminar in Current Urban Problems

## Urban Studies Major, Concentration in Social Work and Social Policy

Requirements for a Major in Urban Studies, Concentration in Social Work and Social Policy

In addition to the 6 Core Courses ( 18 credits) and 2 Elective Courses ( 6 credits) required for the major, students must take the following:

| Code | Title | Credits |
| :---: | :---: | :---: |
| Students must take experiential learning coursework (3 credits) from the following courses: |  | 3 |
| UR-142 | Practicum in Urban StudiesIntroductory | 1-3 |
| UR-242 | Practicum in Urban StudiesIntermediate | 1-3 |
| UR-315 | Oral History for Urban Areas | 3 |
| UR-450 | Internship: Urban Studies | 3-12 |
| Required Course (3 credits) |  | 3 |
| UR-221 | Introduction to Social Work | 3 |
| Students must take 2 of the following courses (6 credits): |  | 6 |
| UR-220 | Immigrant City | 3 |
| UR-305 | Group Conflict in the Urban Community | 3 |
| UR-306 | Interviewing and Counseling Techniques | 3 |
| UR-311 | Urban Politics and Policies | 3 |
| UR-321 | Advanced Social Work | 3 |
| UR-340 | Urban Housing Dilemma | 3 |
| UR-347 | Refugees in American Society | 3 |
| UR-350 | Urban Youth in American Society | 3 |
| UR-380 | Public Policy and Cultural Diversity | 3 |

## Urban Studies Minor

Requirements for a Minor
18 credits including the following:

| Code | Title | Credits |
| :--- | :--- | ---: |
| UR-101 | Introduction to Urban | 3 |
| UR-212 | Studies |  |
|  | American Metropolitan | 3 |
|  | Evolution |  |

## Visual and Performing Arts Department of Visual and Performing Arts

Aligning itself with the evolving trends of the $21^{\text {st }}$ century arts world, Worcester State University offers several programs for visual and performing arts students, including two majors, double majors for education students, and four minors.

The Major in Interdisciplinary Visual and Performing Arts is one of the few interdisciplinary arts majors in the country. With this major, students go beyond the standard coursework in art, music, and theatre to understand the larger world of visual and performing arts. WSU's VPA major allows students to gain an interdisciplinary view of the arts and an understanding of how to use one art form to inform the other, while also gaining an in-depth knowledge of the art forms that most excite them.

The interdisciplinary major is designed to provide students with a strong foundation in art, music, and theatre, and both a theoretical and practical understanding about how they interact in an interdisciplinary environment. Core courses promote critical thinking, and prepare students intellectually and creatively to complete their capstone/senior thesis projects and launch careers in the arts. Students craft the major to fit their areas of interest - art, music, theatre, etc. - through electives chosen in consultation with advisors. Students apply their coursework to the production, performance, and critical study of creative work through a multitude of exhibit and performance opportunities.

Students interested in theatre can pursue studies through the new Major in Theatre or the Major in Interdisciplinary Visual and Performing Arts. The. Major in Theatre provides marketable, hands-on production experience with an extensive variety of coursework to prepare students for a career in live theatre production, its associated industries, or advanced graduate education.

Students interested in art can pursue studies through the new Major in Art or the Major in Interdisciplinary Visual and Performing Arts. The Major in Art emphasizes the integration of broad-based studio art training and arts research with the development
of creativity, communication, and critical thinking to prepare students for graduate studies or careers in a wide range of arts-related fields.

- Art Major (p. 313)
- Art Minor (p. 313)
- Composition and Music Technology Minor (p. 406)
- Music Minor (p. 405)
- Theatre Major (p. 454)
- Theatre Minor (p. 454)
- Visual and Performing Arts and Education, Double Major (p. 490)
- Visual and Performing Arts Major (p. 489)


## Faculty

Michael C. Hachey, Professor (1993), B.F.A., M.F.A., Massachusetts College of Art

Stacey Parker, Professor (2007), B.F.A., Alfred University; M.F.A., Rochester Institute of Technology

Amaryllis Siniossoglou, Professor (2005), P.E.P., Royal College of Art, London; M.F.A., University of Massachusetts, Amherst; Diplome Superieur d' Art Plastique, School of Art, Athens

Kyle D. Martin, Professor (1998), B.M. HardinSimmons University; M.M., D.M.A., Eastman School of Music

Carlos Odria, Assistant Professor (2020), B.A., M.Mus., Ph.D., Florida State University

Samuel O'Connell, Department Chair, Professor (2010), B.A., M.A., Washington University; Ph.D., Northwestern University

Adam Zahler, Professor (2007), B.A., University of Vermont; M.F.A., University of Virginia

## Art Courses

AR-100 Cross Media Studio
LASC Categories: CA, TLC
An introduction to selected two- and three-
dimensional media through the exploration of a semester-long theme such as the human figure, or forms in nature.
Fall and Spring and every year. 3 Credits

## AR-105 Introduction to Animation

This hands-on introductory course covers the fundamentals and aesthetics of computer animation using the Adobe AfterEffects motion graphics program.
Fall and Spring and every year. 3 Credits

## AR-118 Global Art History <br> LASC Categories: GP, DAC, CA

Surveys the outstanding visual art from all cultures beginning in the prehistoric era to the late 19th century.
Fall only and every year. 3 Credits

## AR-119 First Year Art Practicum

This course offers students an opportunity to work closely with faculty to work in the art gallery, develop technical skills, studio projects, and do research to support their creative development. This course is required for the Art Major. It will be geared to the individual needs of each student.
Other or on demand and every year. 1 Credit

## AR-123 Design Fundamentals

LASC Categories: CA, QAC
Design Fundamentals is a course combining 2 and 3 Dimensional Design. In this course we explore composition, space, and color along with planes, volumes, and environments. A variety of materials are used to create on surfaces and in actual space. Many projects are grounded in aspects of mathematical and geometrical systems, e.g., grids, tiling, Fibbonaci series, fractals, regular solids.
Fall and Spring and every year. 3 Credits

## AR-130 Painting I

LASC Categories: CA
An introduction to the fundamentals of historical painting styles, techniques, and materials used, with emphasis on visual perception and expression Fall and Spring and every year. 3 Credits

## AR-140 Drawing Fundamentals <br> LASC Categories: CA, GP, DAC

The development of visual perception, technical skills, and individual expression in drawing media. Students will explore concepts in drawing to develop their artwork through observation, experimentation, awareness of historical and contemporary contexts, and critical assessment. Projects utilize a variety of drawing materials to demonstrate technical facility and to enhance self-expression.
Fall and Spring and every year. 3 Credits

## AR-150 Life Studio I

LASC Categories: CA
Focus on the human figure through different modes of drawing and painting. Attention to structure and anatomy and their expressive aspects.
Fall and Spring and every year. 3 Credits

## AR-165 Creating Cultural Forms

LASC Categories: CA, GP, WAC, DAC
Prerequisites: EN-102
A studio course. Concepts of art forms created by a variety of world cultures and art movements of the past and present.
Fall and Spring and every year. 3 Credits

## AR-191 Special Topics in Art

Introductory course to cover various topics. 3 Credits

AR-193 First Year Seminar in Art
LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Every year. 3 Credits

## AR-210 Drawing and Painting Studio LASC Categories: CA

This course is a comprehensive introduction to the art of drawing and painting. Students will be strongly encouraged to explore the skills and concepts of these art forms in order to develop their ideas through observation, experimentation, historical context, and analysis. Projects are designed to expand awareness and to expose students to contemporary concerns.
Fall and Spring and every year. 3 Credits

## AR-215 Topics in Art

LASC Categories: CA, GP
This course chooses a topic or a theme to explore in the classroom and studio for a semester. Students will read about this topic or theme and they will produce work in the studio inspired by their reading. Topics may include (but are not limited to): the figure in art, landscape art, abstract art, science and art, social sciences and art, religion and art, east meets west, arte povera, Dada art etc.
Fall only and every year. 3 Credits

## AR-219 Second Year Art Practicum

Prerequisites: VP-200
This course offers students an opportunity to work closely with faculty to work in the art gallery, develop technical skills, studio projects, and do research to support their creative development. This course is required for the Art Major. It will be geared to the individual needs of each student.
Other or on demand and every year. 1 Credit

## AR-221 Studio Art Practicum LASC Categories: CA

This is the first in a set of three core courses for the Art major. This course focuses on practical and professional art skills including but not limited to the creation of professional documents like resumes, artist statements and proposals, professional internet presence such as websites and social media accounts, art critique work and gallery related content such as exhibition submissions and gallery representation.
Other or on demand and every year. 3 Credits
AR-225 Art Since Mid-20th Century
LASC Categories: CA, GP, WAC, DAC
Explores how artists have challenged the traditional definitions of the art object and the expanded materials, media and concepts employed by artists since 1950 to the present era.
Fall only and every year. 3 Credits

## AR-230 Printmaking <br> LASC Categories: CA

Introduction to the techniques and aesthetics of etching and relief. Prints by major artists are examined.
Fall and Spring and every year. 3 Credits

## AR-235 3D Sculpture Studio

LASC Categories: CA, GP, WAC
Prerequisites: EN-102
This is an introductory course focusing on form creation grounded in sculptural forms and techniques. Students will create sculpture by exploring traditional techniques such as molding, carving, casting and assemblage using historical and contemporary materials from clay and stone to cardboard and found objects. Historical context, skill development, critical analysis and proper tool usage and safety are emphasized.
Fall and Spring and every year. 3 Credits

## AR-240 Watercolor

LASC Categories: CA, TLC
A studio course exploring various techniques and expressive forms used by watercolorists of the past and present.
Fall and Spring and every year. 3 Credits

## AR-260 Visual Arts in the Schools <br> LASC Categories: CA

An exploration of art materials and concepts, and their appropriate use with children. Includes studio projects, art history, and educational theory. 3 Credits

AR-270 Driftwood to Dumpsters
LASC Categories: CA, TLC, WAC
Prerequisites: EN-102
Students will learn about the history and practice of making art from non-traditional materials. This is a lecture and hands-on art course.
Every 2-3 years. 3 Credits

## AR-285 History of Photography

LASC Categories: CA, TLC
The history of photography from 1839 to present, with attention to styles, aesthetics, technical processes, and leading practitioners. [Cross-listed with CM-285]
Every 2-3 years. 3 Credits

## AR-308 Thesis Seminar

LASC Categories: CA
Prerequisites: AR-221.
This course focuses on the research that prepares students for their Capstone. They will evaluate the work of other artists working in their media, make critical judgments about the work they experience in contemporary exhibitions, and present their ideas orally in class presentations. Students will also develop their studio art portfolio and capstone proposal.
Spring only and every year. 3 Credits

## AR-319 Third Year Art Practicum

Prerequisites: AR-219
This course consolidates student studio skills, research expertise, and best practices for creative work. Students will initiate the development of a body of work that will lead to Capstone.
Other or on demand and every year. 1 Credit

## AR-330 Intermediate Printmaking

Prerequisites: AR-230
Continuation of relief printmaking in an individual direction using tone/color and multiple blocks.
Every year. 3 Credits

## AR-350 Special Topics in Art

Prerequisites: one studio course or consent of instructor.
A course covering topics which vary in response to specific student and faculty interest.
Fall and Spring and every year. 3 Credits

## AR-400 Ind Study: Art

An opportunity for further study in a special field of interest under faculty supervision.
Fall and Spring and other or on demand. 3 Credits

## AR-402 Internship in Art

An individual experience through internship with a sponsoring community organization, professional institution or individual, i.e., museums, galleries, artists.
Fall only and other or on demand. 3-6 Credits

## AR-408 Directed Study: Art

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Fall and Spring. 1-3 Credits

## AR-455 Thesis Capstone

LASC Categories: CAP
Pre-requisite: Completion of all other major requirements. Students design, and create their work for public presentation. This is the final course in the Art Major and is a requirement for all the majors. Other or on demand and every year. 3 Credits

## Music Courses

MU-101 Fundamentals of Music and Aural Skills LASC Categories: CA
An introduction to reading and writing conventional music notation, the fundamentals of music theory, and basic aural skills. Emphasis will be placed on intervals, scales, chords, rhythmic values, sightsinging, melodic dictation, and aural recognition of intervals and chords.
Every year. 3 Credits

## MU-102 Applied Music <br> LASC Categories: ICW

Prerequisites: Audition required
Audition required. Private instruction in an instrument or voice. Thirteen weekly one-hour lessons. May be repeated. Studio fee required. Instruments offered: brass, guitar, piano, percussion, strings, and winds.
Fall and Spring and every year. 1 Credit

## MU-104 Class Piano

LASC Categories: CA
Prerequisites: MU-100 or MU-101
Basic piano technique and pedagogy in a group setting of 12 or fewer
Fall and Spring and every year. 1 Credit

## MU-106 Class Guitar

An introduction to playing the guitar, including technique, reading tabs and notation, and harmonization of melodies with chords. Solo literature appropriate to the level will be studied. Students are required to provide an instrument.
Fall and Spring and every year. 1 Credit
MU-115 Music Appreciation
LASC Categories: CA
General survey of masterpieces of major composers of various periods in history of music.
Fall and Spring and every year. 3 Credits

## MU-120 Ear Training

Prerequisites: MU-100 or MU-101
An introductory course in the fundamentals of eartraining and sight-singing. Emphasis will be placed on the development of basic melodic, harmonic, and rhythmic aural skills through listening, dictation, and application of solfege.
Every year. 3 Credits

## MU-125 Jazz Appreciation

LASC Categories: CA, TLC
Surveys the history of jazz beginning with the earliest roots in the American South to today.
Every year. 3 Credits

## MU-140 World Music

LASC Categories: CA
An introduction to music of various cultures and continents including music of Africa, Asia, Latin America, the Middle East, and India.
Spring only and every 2-3 years. 3 Credits

## MU-175 Music in America

Survey of music history and literature in America including gospel spirituals, jazz, popular and classical music.
Other or on demand. 3 Credits

## MU-185 Composition I

LASC Categories: CA
Prerequisites: MU 101 Fundamentals of Music Aural Skills OR MU 100 Music Fundamentals
An introduction to compositional methods and techniques. Students develop personal expression by creating musical works while exploring use of melody, harmony, timbre, rhythm, texture, and tonality within conventional musical forms.
Spring only and every year. 3 Credits

## MU-193 Special Topics in Music:First Year Students

 LASC Categories: FYSIntroductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
Every year. 3 Credits

## MU-200 Issues in Music

This course deals with topics of special interest, in both seminars and studio environments at an introductory level.
3 Credits

## MU-202 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week.
Student fee required. May be repeated. Offered every semester.
Fall and Spring and other or on demand. 1 Credit

## MU-205 Music Theory I

LASC Categories: CA
Prerequisites: MU-100 or 101.
Analysis and application of harmonization techniques using diatonic chords. Further emphasis is placed on voice-leading, figured bass, melodic construction, and embellishing tones. Spring only and other or on demand. 3 Credits

## MU-215 Chorus and Music Theory LASC Categories: CA

Prerequisites: Audition Required
Mixed choral repertoire and performance, covering vocal problems and techniques. Introduction to music theory, rhythms, intervals, basic chordal structures, harmonization. Participation in college chorus required.
Fall and Spring and every year. 3 Credits

## MU-220 Chorus

LASC Categories: CA
Prerequisites: MU-215
Mixed Chorus repertoire. May be repeated.
Fall and Spring and every year. 0.5-1 Credits

## MU-222 African Drumming

LASC Categories: GP, CA, DAC
An exploration of African music and drumming techniques from the culture of Ghana. Students will develop performance skills and present a public performance during the course of the semester. Every year. 0.5-3 Credits

## MU-223 African Drumming II

LASC Categories: CA, GP
Prerequisites: MU 222-African Drumming I, or MU
193-FYS African Drumming from Ghana
This Level 2 ensemble builds on Level 1 in the following ways: (a) learn new drumming styles; (b) improvise with greater freedom; and (c) learn to play lead drum rhythms, with the possibility of performing them in the final performance.
Spring only and every 2-3 years. 3 Credits

## MU-228 Piano Ensemble

LASC Categories: CA
Prerequisites: MU-102 or MU-190
A small ensemble for keyboard players who will learn, explore, and perform four- hand piano repertoire. Every year. 1 Credit

MU-231 Women in Music
LASC Categories: CA, TLC
A survey of the role of women in music, particularly the great composers from Medieval to Contemporary times.
3 Credits

## MU-237 Music in the Elementary School LASC Categories: CA

Discover the benefits of using music to enrich general education from preschool through high school. Develop your own musicianship through learning to use your singing voice, learning to play the recorder, learning to read notation and gaining an overview of western music history.
Other or on demand. 3 Credits
MU-250 Music of the Cinema:Spectacle, Splendor, And Spielberg
LASC Categories: CA, TLC
An introduction to the role, impact, and importance of music in motion pictures from silent movies through contemporary film.
Spring only. 3 Credits

## MU-275 Computers and Music

An introduction to computer music technologies with emphasis on use of electronics and computers in music composition and performance, Further emphasis will be placed on basic acoustics, perception of sound, application of computer music in experimental genres, digital recording, mixing, fundamentals of sound synthesis and digital signal processing.
Other or on demand and other or on demand. 3 Credits

## MU-280 History of Music <br> LASC Categories: CA

A general survey of western art music covering the historical periods of the Medieval, Renaissance, Baroque, Classical, Romantic, and 20th Century. Fall and Spring and every year. 3 Credits

## MU-285 Composition II

Prerequisites: MU-185 or MU-204, and MU-205. A continuation of Composition I. Students will explore methods of tonal composition Emphasis will be placed on melodic writing, harmonization practices, chord substitutions, use of figurations, texture, and timbre in tonal music. Experimentation with rhythmic and metric practices including asymmetry, shifting accents, changing time signatures, and ostinato. Fall and Spring and every year. 1 Credit

## MU-300 Chorale

LASC Categories: CA
Prerequisites: Audition Required
Study and performance of a cappella choral literature from the Middle Ages to contemporary times. May be repeated. Audition required for enrollment.
Every year. 0.5-1 Credits

## MU-302 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week. Student fee required. May be repeated. Offered every semester.
Fall only and every year. 1 Credit
MU-305 Music Theory II
LASC Categories: CA
Prerequisites: MU-205
Harmonization of melodies using primary and secondary chords, harmonic analysis of tonal music from the Common Practice Period, including diatonic and chromatic chords, secondary dominants, modulation, and aural skills. An introduction to formal schemes in music including phrase structure, binary and ternary and form, sonata form, and species counterpoint.
Fall only and every year. 3 Credits
MU-310 The American Musical in Performance
Study, rehearsal and performance of a great
American musical. Music, acting and dance will all be skills which are developed.
Every 2-3 years. 3 Credits

## MU-321 Small Ensemble

LASC Categories: ICW, CA
The performance of musical works by a small ensemble. By permission of instructor or audition. Fall and Spring and every year. 0.5-1 Credits

## MU-326 Chamber Orchestra LASC Categories: CA

In this class the students will rehearse and perform music from the orchestral repertoire in a variety of styles and genres and from varied periods. All woodwind, string, brass, keyboard and percussion instruments are eligible to participate. 1 credit section for those repeating the class in another semester and those in proposed revised music minor; . 5 credit section for VPA music concentrators Pre-requisite: Audition for Instructor Fall and Spring and every year. 0.5-3 Credits

## MU-330 Jazz Ensemble

LASC Categories: ICW, USW, DAC
An ensemble where students learn to perform traditional jazz repertoire, as well as original compositions. Through rehearsing, performing, directed listening and ear training, students will learn: (a) conceptual approaches to improvising and composing; (b) harmonic, melodic and rhythmic theory specific to the jazz idiom; and (c) methods for connecting audiation to instrumental playing. Special emphasis will be on jazz standards, especially those with a blues form. 3 credits 1 credit if repeating .5 for Visual and Performing Arts majors with music concentration or focus and those who minor in composition and music technology
Fall and Spring and every year. 0.5-3 Credits

## MU-375 Sound Synthesis

Prerequisites: MU-275
A continuation of MU 275 Computers and Music. Focus on application of sound in composition acoustics and additive synthesis, modulation and waveshaping, signal flow, processing, digital filtering, reverberation, and sample processing.
Other or on demand and other or on demand. 3 Credits

## MU-385 Composition III

Prerequisites: MU 285/Composition II MU 305/Music Theory I (currently MU 210)
An exploration of compositional practices presented during Composition II. Students will compose absolute music in the style of the Common Practice Period as well as work with superimposed chords, shifting tonality, pandiatonicism, large-scale forms, polyrhythms, and polymeter, This course introduces to composing tonal music for non-musical genres including media, video games, incidental music for theater and film.
Other or on demand and every year. 1 Credit

## MU-400 Independent Study in Music

Prerequisites: Consent of Instructor
An opportunity for further study in a special field of interest under faculty supervision.
Fall and Spring and every year. 1-6 Credits

## MU-402 Applied Music

Prerequisites: Audition Required
Instruments offered: Piano, voice, oboe, clarinet, flute, saxophone, trumpet, trombone, French horn, violin, viola, cello, bass, percussion, guitar. Instructors for other instruments may be arranged by special request to the Music Department. Private instruction in an instrument or voice, one hour per week. Student fee required. May be repeated. Offered every semester.
Fall and Spring. 1 Credit

## MU-408 Directed Study: Music

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## MU-410 Special Topics in Music

This course will allow members of the music faculty to develop courses of special interest. This would include seminars on specific composers or compositions, in both classroom and applied studio enviorments.
0.5-3 Credits

## MU-485 Composition IV

Prerequisites: MU-385
Compositional techniques of the 20th-century including modality, parallelism, atonality, serialism, electronic music, aleatory, music concrete, and sound synthesis.
Other or on demand and other or on demand. 1 Credit

## Theatre Courses

TH-126 Script Analysis
LASC Categories: CA, TLC, DAC
Script analysis for theatre artists. How to take a script from initial reading to production.
Other or on demand. 3 Credits

## TH-145 Acting I <br> LASC Categories: CA

Introductory acting theory and practice. Students present brief monologues and scenes in class.
Fall and Spring and every year. 3 Credits

## TH-155 First-Year Theatre Practicum

Practical work in Theatre production for first-year students.
Fall and Spring and every year. 1 Credit

## TH-175 Introduction to Stagecraft <br> LASC Categories: CA, QR

An introductory class to major types of Stagecraft for live theatre. Students will learn in formal classes and in 30 hours of scheduled laboratories about set construction, costume construction and lighting technology. Students will learn the vocabulary of technical theatre and will learn geometric and mathematical methods required for each of the three main areas covered.
Fall and Spring and every year. 3 Credits

## TH-191 Introduction to the Theatre <br> LASC Categories: CA

An overview of live performance, with the emphasis on audience appreciation. Performance arts and crafts are examined.
Fall and Spring and every year. 3 Credits

## TH-193 Special Topics in Theater.First-Year Students LASC Categories: FYS

Introductory level course covering topics of special interest to first-year students. Offered only as a FirstYear Seminar.
Every year. 3 Credits

## TH-235 History of Theatre

LASC Categories: GP, TLC, DAC
Survey of world theatre including from its ritual origins through the classical era, medieval era, the renaissance, the restoration, the modernist revolution to the present day. This global approach includes historical examples from Europe, Africa, Asia, North America, and South America. Fall and Spring and every year. 3 Credits

## TH-246 Voice and Movement

Prerequisites: TH-145.
Training to strengthen the natural voice, develop diction, learn period movement and develop spatial awareness on and off stage.
Every year. 3 Credits

## TH-255 Second-Year Theatre Practicum

Practical work in Theatre production for second-year students.
Every year. 1 Credit

## TH-263 Concepts of Theatre Design LASC Categories: CA

This is a fundamental design course for live theatre, but will also apply to other design fields. Drawing, both freehand and digital, will be studied. Students will learn the elements and principles of design, and how to apply them to Scenic, Costume and Lighting Design, as well as other modes of 2-dimensional and 3-dimensional art. Additive and subtractive color theory will be covered. Students will learn the specialized language of design and will study how to approach the three areas of design aforementioned. Other or on demand and every year. 3 Credits

## TH-270 History of American Entertainment I <br> LASC Categories: CA, USW

An historical survey of American popular entertainments from the Colonial period through the end of the nineteenth century.
Every year. 3 Credits
TH-271 History of American Entertainment II
LASC Categories: CA, USW
An historical survey of American popular entertainments from the rise of film and radio through the great American musicals.
Every year. 3 Credits

## TH-272 History of Costume

LASC Categories: CA
The history of clothing from ancient times to the present. Lecture/discussion and a research project on a chosen era or culture.
Every 2-3 years. 3 Credits

## TH-274 Stage Management

LASC Categories: CA, QAC
An introduction to the craft of stage management focussing on the techniques, responsibilities and duties necessary to manage both rehearsals and performances.
Every year. 3 Credits

## TH-290 Theatre for Young Audiences

LASC Categories: ICW, CA, DAC
Organization of children's theatre, script selesction, visual design, rehearsal and performance.
Investigation of creative drama as a teaching tool in elementary education.
Spring only and other or on demand. 3 Credits

## TH-292 Applied Theatre and Community Engagement LASC Categories: CA, ICW

Principles and techniques of leading improvised dramatic activities with children and adults. Involves sensory awareness, imagination, movement and story dramatizations.
Every year. 3 Credits

## TH-321 Rehearsal and Performance LASC Categories: CA

Public performance of full-length stage productions under faculty direction. Students assume performance and/or production "roles" as described in departmental manual.
Spring only and every year. 3 Credits

## TH-345 Acting II

Prerequisites: TH-191 TH-145
Further development of acting skills with emphasis on stage-acting technique.
Every year. 3 Credits

## TH-348 Stage Combat

LASC Categories: CA, ICW
Prerequisites: TH-191 or TH-145.
Training in armed and unarmed combat for the stage. emphasis will be placed on safety in the choreography of stage fighting.
Every year. 3 Credits

## TH-355 Third-Year Theatre Practicum

Practical work in Theatre production.
Fall and Spring and every year. 1 Credit

## TH-360 Scenic Design for Theatre LASC Categories: CA

Scenic Design for Theatre will include research, drafting, drawing and rendering, model building and presentation of scenic designs for assigned plays. Every year. 3 Credits

## TH-370 Costume Design for Theatre

LASC Categories: CA
Conceptualization, collaboration, research, figure drawing and rendering, swatching, and presentation of costume designs for assigned plays.
Every year. 3 Credits

## TH-380 Directing

Prerequisites: TH-145 and TH-191
Script selection, casting, scene analysis, blocking, rehearsal techniques and other concerns of the theatrical director. Students direct a short scene and short plays.
Every 2-3 years. 3 Credits

## TH-390 Lighting Design for Theatre <br> LASC Categories: CA

Study and exercises in conceptualization, collaboration, design presentation, qualities and functions of light, drafting the light plot, and control of theatrical lighting.
Every year. 3 Credits

## TH-399 Special Topics in Theatre

Will include study of topics on an needed basis, (i.e. in conjunction with a production, or a course for advanced students who wish to pursue further study).
Other or on demand and other or on demand. 3 Credits

## TH-405 Independent Study in Theatre

Offers motivated students the opportunity to study a theatre topic not covered in the established curriculum.
Other or on demand and other or on demand. 1-6 Credits

## TH-408 Directed Study: Theatre

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits

## TH-435 Internship in Theatre

Provides an opportunity for students in good standing to gain practical experience with professional theatre or related organizations. Other or on demand and other or on demand. 1-12 Credits

## TH-455 Theatre Capstone

LASC Categories: CAP, WAC
Prerequisites: TH-155 and TH-255 and TH-355
Theatre students will create a senior thesis project/ capstone in acting, directing, design, playwriting, craft or dramaturgy, chosen in consultation with a faculty advisor and demonstrating the skills learned in their studies. The capstone may be part of a mainstage production or a student generated project. Each capstone project will be accompanied by a written analysis showing their research or fulldocumentation of their process.
Fall and Spring and every year. 3 Credits

## Visual and Performing Arts Courses

VP-155 First Year Practicum

Students will put into practice interdisciplinary concepts, ideas, and techniques at an experiential level.
Spring only and every year. 1 Credit
VP-193 Special Topics in Visual and Performing Arts:
First-Year Students
LASC Categories: FYS
Introductory level courses covering topics of special interest to first-year students. Offered only as FirstYear Seminar.
Every year. 3 Credits

## VP-200 Critical Thinking in the Arts

LASC Categories: CA, TLC, DAC, QAC
The experience of art, music, and theatre to develop individual critical thinking in the similarities and differences among the arts.
Every year. 3 Credits

## VP-210 Contemporary Dance Styles I

LASC Categories: CA
The study and movement of dance vocabularies in one or more contemporary and modern styles. Every year. 3 Credits

VP-255 Second Year Practicum
Prerequisites: VP-155
Students will put into practice interdisciplinary concepts, ideas, and techniques at a exploratory level.
Spring only and every year. 1 Credit

## VP-355 Third Year Practicum

Prerequisites: VP-155 and VP-255
Students will put into practice interdisciplinary concepts, ideas, and techniques at an experimental level.
Spring only and every year. 1 Credit
VP-364 Interdisciplinary Arts Theory
Prerequisites: VP-200
An exploration of interdisciplinary art theory drawing on theories and critical writings from Art, Music, and Theatre from a variety of historical periods.
Fall and Spring and every year. 3 Credits

## VP-365 Interdisciplinary Arts Practice

Prerequisites: VP-200
Examines examples of contemporary modes of interdisciplinary works of music, theatre, and visual art with the goal of developing an individual, creative aesthetic.
Spring only and every year. 3 Credits

## VP-405 Independent Study in the Arts

Prerequisites: Permission of Instructor
An opportunity for advanced students to examine topics not ordinarily covered in other arts courses.
Every year. 1-6 Credits
VP-408 Directed Study. Visual \& Performing Arts
Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits
VP-410 Special Topics in the Arts
Study of topics not otherwise covered in the curriculum. [Prerequisite: [2 VP courses]
Fall and Spring and every year. 3 Credits
VP-435 Internship in the Arts
Advanced students gain practical experience in a working arts environment.
Fall and Spring and every year. 3-12 Credits
VP-455 Arts Capstone/Senior Thesis
LASC Categories: WAC, CAP
Prerequisites: VP-200, and EN-102
Students design and create a work or works of art, music, or theatre for public presentation.
Every year. 3 Credits

## Program Learning Outcomes <br> Art

- Acquire the principles of art and design.
- Demonstrate knowledge of traditional and contemporary art practices.
- Cultivate aesthetic and conceptual judgments.
- Develop skills in critical thinking and analysis.
- Demonstrate effective written, oral, and visual communication skills.
- Produce artwork in a variety of media and techniques.


## Theatre

- Acquire the critical language for the analysis and interpretation of theatre
- Demonstrate aesthetic literacy over historical periods and cultures that pertain to the production and interpretation of theatre
- Apply theoretical knowledge and concepts to the creation and critical analysis of theatre
- Utilize critical thinking skills in the production of theatre


## Visual and Performing Arts

- Acquire the critical language for the analysis and interpretation of art forms
- Demonstrate aesthetic literacy over historical periods and cultures that pertain to the production and interpretation of art
- Apply theoretical knowledge and concepts to the creation and critical analysis of art forms
- Utilize critical thinking skills in the production of creative work


## Visual and Performing Arts Major

Aligning itself with the evolving trends of the $21^{\text {st }}$ century arts world, Worcester State University offers several programs for its visual and performing arts students, including two majors, double students a Major in Interdisciplinary Visual and Performing Arts, one of the few interdisciplinary arts majors for education students, and four minors. in the country.

The Major in Interdisciplinary Visual and Performing Arts is one of the few interdisciplinary arts majors in the country. With this major, students go beyond the standard coursework in art, music, and theatre to understand the larger world of visual and performing arts. WSU's VPA major allows students to gain an interdisciplinary view of the arts and an understanding of how to use one art form to inform the other, while also gaining an in-depth knowledge of the art forms that most excite them.

The interdisciplinary major is designed to provide students with a strong foundation in art, music, and theatre, and both a theoretical and practical understanding about how they interact in an interdisciplinary interdisciplinary environment. Core courses promote critical thinking, and prepare
students intellectually and creatively to complete their capstone/senior thesis projects and launch careers in the arts. Students craft the major to fit their areas of interest - art, music, theatre, etc. - through electives chosen in consultation withadvisors.- through electives chosen in consultation with advisors. Students apply their coursework to the production, performance, and critical study of creative work through through a multitude of exhibit and performance opportunities.

## Requirements for a VPA Major

Minimum requirement for the major is completion of 45 credits, including a five course ( 15 credit) Foundation curriculum, a seven course ( 15 credit) Interdisciplinary Core, and 15 credits of electives chosen in consultation with an advisor.

| Code $\quad$ Title | Credits |
| :--- | ---: | ---: |
| Interdisciplinary Foundation and Core Courses | $\mathbf{( 4 5}$ |
|  | credits) |
| Foundation Courses | 15 |

Select 2 courses from 2 foundations and 1
course from the third

| Foundation in Art |  |
| :---: | :--- |
| AR-118 | Global Art History |
| AR-123 | Design Fundamentals |
| Foundation in Music |  |
| MU-101 | Fundamentals of Music and |
| MU-280 | Aural Skills |
| Foundation in Theatre |  |
| TH-126 | Script Analysis of Music |
| TH-145 | Acting I |
| Core Courses | First Year Practicum |
| VP-155 | Critical Thinking in the Arts |
| VP-200 | Second Year Practicum |
| VP-255 | Third Year Practicum |
| VP-355 | Interdisciplinary Arts Theory |
| VP-364 | Interdisciplinary Arts |
| VP-365 | Practice |
| VP-400 |  |
| Disciplinary Electives | 1 |

Five courses to be taken across the department in AR, MU, TH, or VP. To be selected with advising based on student interest and student need.

## Visual and Performing Arts and Education, Double Major

Students who double major in Early Childhood or Elementary Education will take a three-part system of courses that include: foundation courses across the department's three disciplines of art, music, and theatre; courses in the interdisciplinary core of the department; and courses on pedagogy and elective courses in a student's chosen emphasis in the arts.

## Requirements for an Emphasis in Art for Students who double major in Visual and Performing Arts and Early Childhood or Elementary Education

| Code | Title | Credits |
| :---: | :---: | :---: |
| Foundation Courses |  | (12 |
|  |  | credits) |
| Choose 4 courses, 2 from 1 discipline and 1 from each remaining discipline for a total of 12 credits: |  | 12 |
| AR-118 | Global Art History |  |
| AR-123 | Design Fundamentals |  |
| MU-101 | Fundamentals of Music and Aural Skills |  |
| MU-280 | History of Music |  |
| TH-126 | Script Analysis |  |
| TH-145 | Acting I |  |
| Core Courses |  | credits) |
| VP-155 | First Year Practicum | 1 |
| VP-200 | Critical Thinking in the Arts | 3 |
| VP-255 | Second Year Practicum | 1 |
| VP-355 | Third Year Practicum | 1 |
| VP-364 <br> or VP-365 | Interdisciplinary Arts Theory Interdisciplinary Arts Practice | 3 |
| VP-455 | Arts Capstone/Senior Thesis | 3 |
| Emphasis in Art for Students who double major in Early Childhood or Elementary Education |  | credits) |
| Art Pedagogy |  |  |
| AR-260 | Visual Arts in the Schools | 3 |
| Electives in Art |  |  |
| Art electives |  | 9 |
| Total Credits |  | 36 |

Requirements for an Emphasis in Music for Students who double major in Visual and Performing Arts and Early Childhood or Elementary Education

| Code Title | Credits <br> Foundation Courses |
| :--- | ---: |
| $(12$ <br> credits) |  |
| Choose 4 courses, 2 from 1 discipline, 1 from | 12 |
| each remaining discipline for a total of 12 credits: |  |


| AR-118 | Global Art History |  |
| :---: | :--- | ---: |
| AR-123 | Design Fundamentals |  |
| MU-101 | Fundamentals of Music and |  |
|  | Aural Skills |  |
| MU-280 | History of Music |  |
| TH-126 | Script Analysis | (12 |
| TH-145 | Acting I | credits) |
| Core Courses |  | 1 |
| VP-155 | First Year Practicum | 3 |
| VP-200 | Critical Thinking in the Arts | 1 |
| VP-255 | Second Year Practicum | 1 |
| VP-355 | Third Year Practicum | 3 |
| VP-364 | Interdisciplinary Arts Theory | 3 |
| or VP-365 | Interdisciplinary Arts Practice |  |
| VP-455 | Arts Capstone/Senior Thesis | 3 |

Emphasis in Music for Students who double (12 major in Early Childhood or Elementary Education credits)
Music Pedagogy

| MU-237 | Music in the Elementary <br> School | 3 |
| :--- | :--- | ---: |
| Electives in Music |  | 9 |
| Music Electives | $\mathbf{3 6}$ |  |

Requirements for an Emphasis in Theatre for Students who double major in Visual and Performing Arts and Early Childhood or Elementary Education

| Code $\quad$ Title | Credits |
| :--- | ---: | ---: |
| Foundation Courses | $(12$ |
|  | credits) |
| Choose 4 courses, 2 from 1 discipline, 1 from | 12 |
| each remaining discipline for a total of 12 credits: |  |



Electives in Theatre
Theatre Electives 9

Total Credits

## Requirements for an Emphasis in Visual and Performing Arts for Students who double major in Early Childhood or Elementary Education



| VP-255 | Second Year Practicum | 1 |
| :---: | :---: | :---: |
| VP-355 | Third Year Practicum | 1 |
| $\begin{aligned} & \text { VP-364 } \\ & \text { or VP-365 } \end{aligned}$ | Interdisciplinary Arts Theory Interdisciplinary Arts Practice | 3 |
| VP-455 | Arts Capstone/Senior Thesis | 3 |
| Emphasis in Visual and Performing Arts for Students who double major in Early Childhood or Elementary Education |  |  |
| Pedagogy |  |  |
| Choose 2 courses from separate disciplines. |  | 6 |
| AR-260 | Visual Arts in the Schools |  |
| MU-237 | Music in the Elementary School |  |
| TH-290 | Theatre for Young Audiences |  |
| TH-292 | Applied Theatre and Community Engagement |  |

Electives in Art, Music, Theatre, and Visual and Performing Arts
Art, Music, Theatre, and VPA Electives 6
Total Credits

## Art Major

The Art Major offers a 45-credit program of study that emphasizes the integration of broad-based studio art training and arts research with the development of creativity, communication, and critical thinking to prepare students for graduate studies or careers in a wide range of arts-related fields, including arts and cultural entrepreneurship, museum studies, arts administration, arts and community development, etc. Students in the art program have the freedom to explore a specified area of interest, including drawing, painting, illustration, sculpture, printmaking, or history and gallery/museum studies.

As part of the new major's coursework, 30 credits come from a range of introductory and intermediate studio courses, yearly Art Practicums where students are given the opportunity to apply their knowledge and begin to develop their own unique artistic voice, and a menu of student- selected elective courses. This progressive learning program prepares the students for the Thesis Seminar and Capstone where they will develop an independent project that combines creative work in the studio with research informed by their chosen topic or concept.

In addition to four dedicated studios with tools and equipment for printmaking, painting and drawing, design and sculptural work serving as
laboratories, art faculty and staff operate the Mary Cosgrove Dolphin Gallery. The Gallery gives students the opportunity to immerse themselves in current art, artists and art trends, show their own work, and provides a practical setting to learn the inner workings of a professional gallery through internships, course work and exhibition work.

Worcester State University also offers a Minor in Art (p. 313).

| Code | Title | Credits |
| :--- | :--- | ---: |
| Required Courses |  |  |
| AR-118 | Global Art History | 3 |
| AR-119 | First Year Art Practicum | 1 |
| AR-123 | Design Fundamentals | 3 |
| AR-140 | Drawing Fundamentals | 3 |
| AR-210 | Drawing and Painting Studio | 3 |
| AR-215 | Topics in Art | 3 |
| AR-219 | Second Year Art Practicum | 1 |
| AR-225 | 3D Sculpture Studio | 3 |
| AR-235 | Third Year Art Practicum | 3 |
| AR-319 | Thesis Seminar | 1 |
| AR-405 | Thesis Capstone | 3 |
| AR-455 | Clecth Century | 3 |
| Electives to be selected with advising | 15 |  |
| Suggested Elive |  |  |

Suggested Electives
AR-130 Painting I
Code Title Credits

| Required Courses |  | 3 |
| :--- | :--- | ---: |
| AR-123 | Design Fundamentals | 3 |
| SELECT | AR-130 Painting 1 |  |
|  | OR AR-140 Drawing |  |
|  | Fundamentals OR AR-210 <br>  <br>  <br>  <br> AR-235 | 3D Sculpture Studio |

## Elective Courses

Art History Elective 3
AR Elective 300+ 3
AR Elective 3

Total Credits

## Music Minor

Recognizing the interdisciplinary nature of the arts and how the arts often integrate into and enhance students' study in other disciplines such as criminal justice, communication, business and psychology, the Visual and Performing Arts Department offers minors in its three disciplines of Art, Music, and

Theatre. A minor in the arts allows students to further explore and develop their affinity for the arts and their artistic talents.

Students develop musicianship through instrumental and vocal lessons, study performance as members of ensembles, and complete courses in composition, history, and theory of music.

Students must audition for individual instrumental or vocal lessons.

## Requirements for a Minor in Music



## Composition and Music Technology Minor

Recognizing the interdisciplinary nature of the arts and how the arts often integrate into and enhance students' study in other disciplines such as criminal justice, communication, business and psychology, the Visual and Performing Arts Department offers minors in its three disciplines of Art, Music, and Theatre. A minor in the arts allows students to further explore and develop their affinity for the arts and their artistic talents.

As a music composition and technology minor, students apply a strong foundation in musical literacy and personal musicianship to composition and emerging digital technologies. Traditional courses in music theory, performance, and composition prepare students for digital application of music.

Students perform original compositions as well as compose original music for student video and film projects and theatrical productions. Based on personal interest, students choose from a variety of fields to complete the elective component of this minor. These include creative writing, film and video games, web design, and practical business management in addition to visual art, music, theater, and interdisciplinary arts courses.

Requirements for a Minor in Composition and Music Technology

## Theatre Major

The Theatre Major offers a 39-credit program that combines marketable, hands-on production experience with an extensive variety of coursework to prepare students for a career in live theatre production, its associated industries, or advanced graduate education. Students in the theatre program acquire essential skills and knowledge in performance, design, technology, and dramaturgy involved in the production and study of theatrical arts. An emphasis is placed on the practical techniques and the critical analysis necessary for successful productions.

As part of the new major's coursework, 24 credits come from required courses in Acting, Design, Technology, and Dramaturgy. The remaining credits are in the form of wide-ranging electives from across theatre's areas of study. Those studies complement required work on productions and a senior thesis project. For their capstone project, students can focus their studies on design and technology (scenic/costume/lighting/sound), dramaturgy, acting, or directing.

Fuller Theater and the scenic and costume shops serve as laboratories where students hone their skills on departmental and student productions.

The production season is chosen to provide students with exposure to a range of styles and genres, and opportunities for a diversity of students. Within this portfolio of productions, the program ensures that the work is relevant to our communities, speaks to our audiences, and is produced in styles that fire the audience's imagination.

Worcester State University also offers a Minor in Theatre (p. 454).

## Requirements for a Theatre Major

Required Core Courses

| Code | Title | Credits |
| :--- | :--- | ---: |
| TH-126 | Script Analysis | 3 |
| TH-145 | Acting I | 3 |
| TH-155 | First-Year Theatre Practicum | 1 |
| TH-175 | Introduction to Stagecraft | 3 |
| TH-235 | History of Theatre | 3 |
| TH-255 | Second-Year Theatre | 1 |
|  | Practicum |  |


| TH-263 | Concepts of Theatre Design | 3 |
| :--- | :--- | ---: |
| TH-274 | Stage Management | 3 |
| TH-355 | Third-Year Theatre <br> Practicum | 1 |
|  | Theatre Capstone | $\mathbf{3}$ |
| TH-455 |  | $\mathbf{2 4}$ |

Elective Courses - 15 credits total; 9 credits must be at the 300 -level or above.

| Code | Title | Credits |
| :--- | :--- | ---: |
| TH-191 | Introduction to the Theatre | 3 |
| TH-246 | Voice and Movement | 3 |
| TH-270 | History of American <br>  <br>  <br>  <br> Entertainment I | 3 |
| TH-271 | History of American <br>  <br>  <br>  <br> Entertainment II | 3 |
| TH-272 | History of Costume | 3 |
| TH-290 | Theatre for Young Audiences | 3 |
| TH-292 | Applied Theatre and | 3 |
|  | Community Engagement |  |
| TH-321 | Rehearsal and Performance | 3 |
| TH-345 | Acting II | 3 |
| TH-348 | Stage Combat | 3 |
| TH-360 | Scenic Design for Theatre | 3 |
| TH-370 | Costume Design for Theatre | 3 |
| TH-380 | Directing | 3 |
| TH-390 | Lighting Design for Theatre | 3 |
| TH-399 | Special Topics in Theatre | 3 |
| TH-405 | Independent Study in | $1-6$ |
| TH-408 | Theatre |  |
| TH-435 | Directed Study: Theatre | 3 |
|  | Internship in Theatre | $1-12$ |

## Theatre Minor

Recognizing the interdisciplinary nature of the arts and how the arts often integrate into and enhance students' study in other disciplines such as criminal justice, communication, business and psychology, the Visual and Performing Arts Department offers minors in its three disciplines of Art, Music, and Theatre. A minor in the arts allows students to further explore and develop their affinity for the arts and their artistic talents.

As a theatre minor, students complete courses covering an overview of theatre, acting and technical skills. Two additional courses are required in a student's chosen area of interest. Students also
participate in at least one stage production offering an opportunity to apply the learned skills in a fully realized stage production.

## Requirements for a Minor in Theatre

18 credits comprised of the following courses:

| Code | Title | Credits |
| :--- | :--- | ---: |
| TH-145 | Acting I | 3 |
| TH-175 | Introduction to Stagecraft | 3 |
| TH-191 | Introduction to the Theatre | 3 |
| TH-321 | Rehearsal and Performance | 3 |
| Select 2 additional 3 credit theatre courses | 6 |  |
| Total Credits |  | $\mathbf{1 8}$ |

## World Languages

## Department of World Languages

The Department of World Languages offers courses in Spanish (major, minor), and Arabic, as well as a program in Latin American and Latinx Studies (minor) taught in English.

Students with interest in international business, international relations, careers in the health professions, nursing, education, global studies, ethnic studies, or criminal justice, among others, are strongly encouraged to advance their language skills by completing a minor or double major, in order to become much needed bilingual professionals.

LASC requirements can also be fulfilled with language courses in the following categories: "Thought, Language, and Culture" (TLC), "Global Perspectives" (GP), "Creative Arts" (CA), "US \& Role in the World" (USW), Individual/Community Well Being (ICW), "Diversity Across the Curriculum" (DAC), and "Writing Across the Curriculum" (WAC).

Students who have earned a Seal of Biliteracy will be granted 12 WSU credits in that language, equivalent to SP-101 / FR-101 / WL-101, SP-102 / FR-102 / WL-102, SP-210 / FR-210 / WL-210, and SP-211 / FR-211 / WL-211. Students with a Seal of Biliteracy are encouraged to continue their language studies by enrolling in a 300 -level language course.

## Spanish Proficiency Test

The Spanish proficiency test allows students to earn WSU credit for Spanish language classes FOR FREE. It also determines at what level students should begin taking Spanish classes at WSU.

Students need to select the level that best corresponds with their knowledge and pass the test at that level. If they pass the test, then they earn credit for that level and all previous levels. There are 4 tests available, one for each course of the language sequence: $101,102,210 \& 211$.

Please refer to the FAQ below for more information. If you have any other questions not answered here or need to make an appointment to take the test, please email spanishtest@worcester.edu.

- Arabic (p. 504)
- French (p. 504)
- Latin American and Latinx Studies (p. 505)
- Spanish (p. 506)


## Arabic Faculty

Mohamed Brahimi, Instructor (2009) B.A., M.A., Suffolk University.

## French Faculty

Judith Jeon-Chapman, Professor (1993) B.A., College of St. Benedict; M.A., Ph.D., University of Washington

## Spanish Faculty

Antonio Guijarro-Donadiós, Department Chair, Associate Professor (2014), B.A., Universidad Complutense de Madrid, Spain; M.A., Salford University, England; M.A., Ph.D., University of Connecticut

Judith Jeon-Chapman, Professor (1993), B.A., College of St. Benedict; M.A., Ph.D., University of Washington

Elizabeth Osborne, Associate Professor (2016), B.A., The George Washington University; M.A., Universidad de Chile; Ph.D., Stony Brook University

Ana Pérez-Manrique, Professor (2006), B.A., Universidad de Malaga, Spain; M.A., University of South Carolina; Ph.D., Florida State University

Naida Saavedra, Associate Professor (2016), B.A., Universidad de Zulia, Venezuela; M.A., Ph.D., Florida State University

## World Language Courses

## AB-101 Beginning Arabic I

LASC Categories: TLC
Introduction to the Arabic language and cultures of the Arabic-speaking world.
3 Credits
AB-102 Beginning Arabic II
LASC Categories: TLC
Prerequisites: AB-101
A continuation of AB 101, designed for students to acquire additional vocabulary, grammar, and reading ability.
3 Credits

## AB-210 Intermediate Arabic I <br> LASC Categories: TLC

Prerequisites: AB-102
Instruction in advanced rules of Arabic grammar and verb system, and in advanced writing and reading. 3 Credits

AB-211 Intermediate Arabic II
LASC Categories: TLC
Prerequisites: AB-210
Reading and discussion of texts dealing with literature, arts, geography, history, and culture of Arabic-speaking world.
3 Credits
FR-101 Beginning French I
LASC Categories: TLC, GP
Fundamentals of pronunciation, patterns of speech, basic structures. Develops listening, speaking, reading, and writing skills.
Fall and Spring and every year. 3 Credits
FR-102 Beginning French II
LASC Categories: TLC, GP
Continuation of FR101.
Fall and Spring and every year. 3 Credits
FR-210 Intermediate French I
LASC Categories: TLC, GP
Prerequisites: FR-102
Review of fundamentals and presentation of more complex grammatical features; development of conversational skills; selected readings; written and oral composition.
Fall and Spring and every year. 3 Credits
FR-211 Intermediate French II
LASC Categories: TLC, GP
Prerequisites: FR-210
Continuation of FR210.
Fall and Spring and every year. 3 Credits
FR-321 Advanced French Composition I
LASC Categories: TLC, WAC
Prerequisites: EN-102 or EN-250 or EN-202
Practice in diverse composition styles as well as review of grammar, and introduction to reading French texts. Conducted in French. [Prerequisite: Two 200-level French courses.]
Other or on demand. 3 Credits

## FR-323 Advanced French Conversation <br> LASC Categories: TLC

Prerequisites: FR-211 or any 300 level French course.
Development of fluency and accuracy, free discussions, prepared oral presentations, practical exercises in oral expression. Conducted in French. Spring only and other or on demand. 3 Credits

## FR-331 General French Civilization

LASC Categories: TLC
Prerequisites: 6 credits department FR At level 200;
Significant aspects of French history, geography,
cultural achievements to world War I. Conducted in
French. [Prerequisite: Two FR 200 level courses or equivalent.]
Other or on demand. 3 Credits
FR-341 Introduction to French Literature
LASC Categories: TLC, GP, DAC
Prerequisites: 6 credits department FR At level 200;
Major periods and genres of French literature;
for majors and minors. Conducted in French.
[Prerequisites: Two FR 200 level courses or equivalent.]
Other or on demand. 3 Credits

## FR-342 Survey of French Literature I

LASC Categories: TLC
Prerequisites: 6 credits department FR At level 200; Selections from the epic, drama, lyric poetry, and the major prose writers to major authors of the classical period. Conducted in French. [Prerequisite: Two FR 200 level courses or equivalent.]
Every 2-3 years. 3 Credits

## FR-344 Survey of French Literature II

LASC Categories: TLC
Prerequisites: 6 credits department FR At level 200;
Major authors of the eighteenth and nineteenth centuries. Conducted in French. [Prerequisites: Two FR 200 level courses.]
Every 2-3 years. 3 Credits

## FR-346 Twentieth Century French Literature

LASC Categories: TLC, GP
Prerequisites: 6 credits department FR At level 200; Major novelists, dramatists and poets from the turn of the century to the present. Conducted in French. [Two FR 200 level courses or equivalent.] Other or on demand. 3 Credits

## FR-403 Teaching Assistantship French

Teaching Assistants in French will regularly attend the beginning or intermediate-level classes to which they are assigned to assist the professor. Suggested for advanced students of French.
Other or on demand. 3 Credits

## FR-408 Directed Study: French

Other or on demand. 3 Credits

## LA-150 Introduction to Latinx Cultures in the US

LASC Categories: TLC, USW
This is an introductory course that discusses the Latinx experience in the US. Students examine issues of language, identity, culture, and immigration among Latinx communities in the US. Students explore the history of Latin American diaspora communities in the US in order to identify cultural traits and identity marks. By discussing these topics, students analyze the particular significance and contribution of Latinx people and their relationship with their countries of origin. In order to achieve that goal, students examine and compare different types of sources including official documents, media releases, films, and podcasts. The class will be conducted in English. Other or on demand and every year. 3 Credits

## LA-350 Immigration, Dreamers, and Latinx Youth

 IssuesStudents explore issues regarding Latinx immigration, citizenship, and the fate of Latinx youth in the US. Students examine US immigration policies and reforms focusing on Latinx populations and the current immigration debate. Through newspaper articles, scholarly articles, and films, students analyze and discuss relevant topics such as constitutional regulations related to documented and undocumented Latinx immigrants; Visa and Green Card issues, and access to education for young Latinx populations, including DREAMers and DACA students. Class discussions include legal, economic, and political issues related to immigration policies and the impact these have on youth. The class will be conducted in English.
Alternating and every 2-3 years. 3 Credits

## LA-355 Latin American Fiction

This course is designed to familiarize students with Latin American works of fiction and to provide them with an overview of literature written throughout the region during the twentieth century. The course will focus on narrative and will discuss a variety of literary movements, aesthetics, and techniques such as realism, fantastic literature, magical realism, crime fiction, and postmodernism. Authors include Horacio Quiroga, María Luisa Bombal, Gabriel García Márquez, Adolfo Bioy Casares, Julio Cortázar, Rosario Ferré, Mario Vargas Llosa, among others. The class will be conducted in English.
Alternating and every 2-3 years. 3 Credits

## LA-360 Survey of Latin American Cinema

Organized both chronologically and nationally, the course focuses on clusters of Latin American films (both feature and documentary) that have intervened in a series of social and cultural debates: colonization, migration, modernity, tradition, inequality, national utopias, etc. Students develop their skills in film analysis as they examine the specific role of film in representing, contesting, or defining questions of national, personal, and cultural identity in the region. Class discussions and assignments familiarize students with the characteristics of the distinct film aesthetics and socio-political and cultural contexts in which these works were produced. The class will be conducted in English.
Other or on demand and every 2-3 years. 3 Credits

## SP-101 Beginning Spanish I

LASC Categories: TLC, GP
Basic oral and written proficiency for daily communication; may be taken as a self-contained unit or as a basis for further development. Audiovisual method. Closed to students who have already taken a 300-level* Closed to Native/Heritage speakers. Native and/or Heritage speakers are encouraged to take SP390 instead. * Unless recommended to a specific student by the Department of World Languages, on a per-case basis. Fall and Spring and every year. 3 Credits

## SP-102 Beginning Spanish II

LASC Categories: TLC, GP
Continuation of SP101. This course is intended for students with at least one year of past Spanish instruction in high school, or one semester in college at the beginning level. Closed to students who have already taken a 300-level Spanish course*. Native and/or Heritage speakers are encouraged to take SP390 instead*. * Unless recommended to a specific student by the Department of World Languages, on a per-case basis.
Fall and Spring and every year. 3 Credits

## SP-191 Special Topics in Spanish LASC Categories: TLC, DAC, GP

An introductory level course in Spanish on current or specialized topics.
Every year. 3 Credits

## SP-193 First Year Seminar Spanish LASC Categories: FYS

Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Every year. 3 Credits

## SP-210 Intermediate Spanish I <br> LASC Categories: TLC, GP

This course is a review of language constructions and everyday vocabulary at a slighter faster pace than an elementary course. Grammar review starts with the most basic structures, such as present, preterite, and imperfect tenses, ser/estar, por/para, command forms, pronouns, and ends with present subjunctive. Vocabulary fields include feelings and emotions; urban living; family relationships; the media; and the environment. Readings, videos, and short films related to different Spanish speaking countries will add a cultural component to the course. This course is intended for students with 2 years of past Spanish instruction. Closed to students who have already taken a 300 -level* Closed to Native/Heritage speakers. Native and/or Heritage speakers are encouraged to take SP390 instead. * Unless recommended to a specific student by the Department of World Languages, on a per-case basis. Fall and Spring and every year. 3 Credits

## SP-211 Intermediate Spanish II <br> LASC Categories: TLC, GP

Prerequisites: SP-210 or appropriate placement score.
Continuation of SP210. [Formerly SP213.] Closed to students who have already taken a 300-level* Closed to Native/Heritage speakers. Native and/or Heritage speakers are encouraged to take SP390 instead. * Unless recommended to a specific student by the Department of World Languages, on a per-case basis. Fall and Spring and every year. 3 Credits

## SP-290 Introduction to Medical Spanish I LASC Categories: ICW, TLC

Prerequisites: SP-211 or above or have 3 years of language instruction.
Students will learn basic phrases in Spanish as related to their daily activities in various health fields. This course focuses on language used in health professions as well as cultural situations, which doctors, technicians, nurses, and EMTs may experience. By familiarizing students with conversational and medical Spanish, it will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between doctors and patients. Designed for students to gain beginning-level competence in Medical Spanish topics such as pediatrics, women's health, physical exams, dental care, checkups, and hospital visits. Fall only and every year. 3 Credits

## SP-291 Introduction to Medical Spanish II LASC Categories: ICW, TLC

Prerequisites: SP-211 or above or have 3 years of language instruction.
Students will learn basic phrases in Spanish as related to their daily activities in various health fields. This course focuses on language used in health professions as well as cultural situations, which doctors, technicians, nurses, and EMTs may experience. By familiarizing students with conversational and medical Spanish, it will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between doctors and patients. Designed for students to gain beginning-level competence in topics such as nutrition, emergencies, diabetes, hypertension, cancer, STIs, and addiction.
Fall only and every year. 3 Credits

SP-292 Spanish for Women's Health
LASC Categories: GP, ICW, DAC
Prerequisites: SP-211 or above, or 3 years of language instruction.
In this course, students will develop communication skills in Spanish using information and vocabulary related to women's health. The content of this course focuses on language used in health professions as well as cultural situations. By familiarizing students with conversational Spanish and medical Spanish, this course will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between professionals and Spanish-speakers. Finally, the course's focus on cultural competency interrogates intersections between women's health and topics including but not limited to politics, economics, gender, sexuality, race and age. Spring only and every 2-3 years. 3 Credits
SP-293 Health and the Latino Community LASC Categories: HBS, TLC
Prerequisites: SP-211 or above or have 3 years of language instruction.
Students will explore the ways in which language and culture shape the approach to health and healthcare experiences of Latinos in the US, and the factors that contribute to health disparities among this group (social, cultural, economic, environmental, and biological). Students will examine how health outcomes and risk factors are arrayed across different generations. Language barriers and sociolinguistic issues will also be studied. Students will identify and discuss causes of health inequities, survey major Latino health issues, and analyze the current and future context of Latino health and healthcare in the U.S.
Fall only and every 2-3 years. 3 Credits

## SP-294 Spanish for the Nutrition and Dietitian Professional <br> LASC Categories: GP, ICW <br> Prerequisites: SP-211 or above, or 3 years of

 language instruction.Students will develop their reading, writing, speaking, and listening skills in Spanish using information and vocabulary related to health, nutrition and dietetics. The content of this course focuses on language used in medical professions as well as cultural situations, which doctors, nutritionists, dietitians, nurses, public health workers, social workers, and other health professionals may experience. By familiarizing students with conversational Spanish and medical Spanish, this course will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between professionals and Spanish-speakers. Spring only and every 2-3 years. 3 Credits

## SP-295 The Human Body: Spanish for Anatomy LASC Categories: ICW, TLC

This course focuses on the study of the Spanish terminology and basic grammatical structures needed to communicate effectively with Spanishspeaking patients and/or their families in a medical/ health setting. It introduces the student to a wide array of vocabulary particular to the human body, body systems, organs, and their functioning, as well as some common diseases (and their symptoms) that affect each system. Class time will be devoted to practicing new vocabulary, via role-play, conversations with classmates, readings, and written activities. Conducted in Spanish.
Fall only and every 2-3 years. 3 Credits
SP-321 Advanced Spanish Composition I
LASC Categories: TLC, WAC
Prerequisites: SP-211 or appropriate placement score.
Facility in prose writing; study of style of selected authors; variety of expression through word discrimination, and advanced grammatical structures. [Prerequisites: Two SP 200 level courses.] Every year. 3 Credits
SP-322 Advanced Spanish Composition II
LASC Categories: TLC, WAC
Prerequisites: SP-321
Continuation of SP321.
Spring only and every year. 3 Credits

SP-323 Advanced Spanish Conversation Through Film
LASC Categories: TLC, USW
Prerequisites: Two 200-level or above Spanish courses.
The main objective of this course is to develop the student's oral proficiency and communication skills, while building on vocabulary, and learning about different aspects of the Hispanic cultural world with a special emphasis on immigration issues. Regarding the class format, it will be mainly based on group/pair discussions and debates, in which the students will ask questions, express their views, elaborate on their ideas, and defend them by providing supporting examples drawn from their own experiences, analysis, or comparisons.
Fall and Spring and every year. 3 Credits

## SP-326 Spanish for the Professions

LASC Categories: GP, TLC
Prerequisites: SP-321.
Intensive practice with language and documents used in private and public sectors including business, medicine, communication, education and social services.
Fall and Spring and every year. 3 Credits

## SP-327 Introduction to Translation

Prerequisites: SP-321.
SP-327 will prepare you for careers in translation and will satisfy professional and academic requirements. It seeks to introduce the student to the techniques required for translation in a competitive environment. Within the context of the development of greater cross-cultural awareness, it will develop the following language skills for business purposes: speaking, listening comprehension, reading, writing, and translation.
Spring only and every year. 3 Credits
SP-331 Spanish Civilization
LASC Categories: CA
Prerequisites: SP-321
An historical survey of Spanish social, cultural, and political life. Conducted in Spanish.
Spring only and every year. 3 Credits

## SP-332 Cultures of Latin America

LASC Categories: DAC, GP
Prerequisites: SP-321.
Introduction to the cultures and history of Latin America from pre-Columbian times to the present day. This course will introduce students to colonial, modern and contemporary cultural, historical and political issues that influenced the development of Latin American identities. The course is taught in Spanish.
Fall only and every year. 3 Credits

## SP-333 Hispanic Presence in US <br> LASC Categories: GP, USW, DAC

Prerequisites: SP-321
Socio-cultural study of Hispanics in the United States, with a focus on major contemporary issues. Conducted un Spanish. [Prerequisites: Two SP 200 level courses.]
Fall only and every year. 3 Credits

## SP-341 Readings in Spanish Literature

Prerequisites: SP-321, and SP-323 or SP-324
Selected masterpieces from Middle Ages to present; social, cultural, and stylistic features of different periods. Recommended as a first course in Spanish literature.
Every 2-3 years. 3 Credits

## SP-346 Latin American Theater

Prerequisites: SP-321 or SP-390.
This course explores the historical and aesthetic development of Latin American Theater, focusing upon the particular factors that distinguish this theater from the Western European tradition. We will analyze dramatic texts (from Argentina, Uruguay, Perú, México, Puerto Rico, Chile, Cuba, and Colombia), performances, and critical and theoretical perspectives to engage in the following questions: How does theater create and represent social and political transformation? How might we reevaluate civic responsibility and accountability through the study of audience? And, finally what are the major innovations in Latin American theater and performance in the 20th \& 21 st Centuries?
Other or on demand and every 2-3 years. 3 Credits

SP-347 Latin American Colonial Literature
Prerequisites: SP-321 or SP-390.
This course will examine the colonial history of the American continent as interpreted through the various historical accounts written by eyewitnesses of the conquest. We will cover two centuries of writings from the late fifteenth to the seventeenth century. We will examine many historical accounts of the conquest, letters, documents, poetry and other historical artifacts to learn of the social, political, religious and economical significance of the colonial era. It combines an overview of the political economy of the region over three centuries with a study of how social groups interacted among themselves and with imperial rule over time.
Other or on demand and every 2-3 years. 3 Credits

## SP-348 Contemporary Spanish Literature

Prerequisites: SP-321
Literary works from the generation of 1898 to the present.
Every 2-3 years. 3 Credits

## SP-349 Spanish-American Literature

Prerequisites: SP-321
Representative works from South and Central American authors from the colonial period to the present.
Fall only and every 2-3 years. 3 Credits

## SP-350 Advanced Spanish Grammar LASC Categories: TLC

Prerequisites: SP-321 or SP-390
This applied linguistics advanced class provides a background of Spanish grammar, and delves into topics of the Spanish language that are usually challenging for English-speaking learners of Spanish. The goals are to clarify important aspects of the Spanish language and related cultural features, including uses of technology and assessment. Spring only and every 2-3 years. 3 Credits

SP-352 Lexicography and Terminology: Computer Assisted Translation (cat)
Prerequisites: SP-321.
This groundbreaking course provides both a practical and a theoretical framework to the study of lexicography and collection of terminology, an essential adjunct to the work of the translator. The role of international standards is pointed out, and principles of construction of terminological banks elaborated. Terminographic procedures in the context of computation technology and terminology management systems are discussed such as the use of the most Computer Assisted Translation (CAT) tools.
Spring only and every 2-3 years. 3 Credits

## SP-355 Effective Teaching of a Foreign Language

Examines and evaluates effective teaching techniques and strategies as well as secondlanguage acquisition theory for middle/secondary foreign language classrooms. The course is conducted in English for anyone interested in foreign language teaching. All students should have an advanced proficiency of a foreign language, meaning they have taken at least one 300-level course or its equivalent.
Fall only and every 2-3 years. 3 Credits

## SP-390 Spanish for Native Speakers

LASC Categories: TLC, DAC
This course is designed for native or heritage speakers of Spanish, who have oral proficiency but may not have received formal training in the language. These students were raised speaking Spanish at home. Therefore, this course is designed to work with the language base students already possess. All of four language skills (listening, speaking, reading, and writing) are emphasized, however, the purpose of the course is to develop reading and writing skills through cultural-related activities.
Fall and Spring and every year. 3 Credits

## SP-401 Advanced Study: Special Topics

Special topics in language, literature, civilization or field work of mutual interest to student and instructor. For advanced students.
Other or on demand. 3 Credits

## SP-402 Independent Study: Spanish

Study of a special topic. Both content and eligibility are subject to departmental guidelines and approval. Other or on demand. 1-6 Credits

## SP-403 Teachng Assistantship in Spanish

Teaching Assistants in Spanish will regularly attend the beginning or intermediate-level Language classes to which they are assigned to assist the professor. Other or on demand. 3 Credits

## SP-408 Directed Study: Spanish

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Other or on demand. 3 Credits

## SP-453 Medical Translation

Prerequisites: SP-321 and SP-327.
This course focuses on building ENG/SPAN, SPAN/
ENG translation competence in a health care setting, and provides guided practice in the translation of actual documents within the bio-medical and medical-legal fields. The course covers linguistic concepts, translation techniques, cultural \& linguistic issues, professional ethics, medical genres \& terminology, resources, and translation exercises. Through weekly translations, reading assignments, and text-analysis activities students will familiarize themselves with health text subgenres, such as patient education pamphlets, lab results, health certificates, prescriptions, informed consents, or health proxies. Students will learn to detect frequent translation challenges in health texts, and develop problem-solving strategies for these issues. Fall only and every 2-3 years. 3 Credits

## SP-454 Legal Translation: Eng/Span-Span/Eng

 Prerequisites: SP-321 and SP-327.This course is designed to provide a general overview of translation practices, techniques and specialized terminology in the discipline of legal translation. The main objective of this class is to teach students how to switch safely and accurately between the source and the target language (Spanish/English English/Spanish). This class will include an intensive study of vocabulary, grammar, sentence structure, and translation difficulties in specialized legal texts. This class will be conducted in Spanish as the base language for lectures. However, given the nature of the course of study, we will fluctuate between Spanish and English, depending on the object. Fall only and every 2-3 years. 3 Credits

## SP-475 Internship: Spanish <br> LASC Categories: CAP

Prerequisites: SP-321 and SP-322 and SP-326
Prerequisites or Corequisite: SP-327
Provides majors practical experience in areas where their speaking, reading, and writing skills may be applied.
Every year. 3 Credits

## WL-101 Beginning World Language

LASC Categories: GP
Beginning level I instruction in world languages
that are not otherwise offered by the Department of Languages and Literature.
Other or on demand. 3 Credits

## WL-102 Beginning World Language II

LASC Categories: GP
Prerequisites: WL-101 or equivalent. Anyone with $2+$ years of language exposure should enroll in this course or higher.
Beginning level II instruction in world languages that are not otherwise offered by the Department of Languages and Literature.
Other or on demand. 3 Credits

## WL-191 Special Topics in World Language

An introductory level course in a world language covering linguistic issues, socio-historical or cultural aspects, or current or specialized topics. Course may be taught in English.
Every year. 3 Credits

## WL-193 First Year Seminar

LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
3 Credits

## WL-210 Intermediate World Language I

Prerequisites: WL-102
Intermediate level I instruction in world languages that are not otherwise offered by the Department of Languages and Literature.
Other or on demand. 3 Credits

## WL-211 Intermediate World Language II <br> Prerequisites: WL-210

Intermediate level II instruction in world languages that are not otherwise offered by the Department of Languages and Literature.
Other or on demand. 3 Credits

## WL-408 Directed Study: World Languages

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
3 Credits
The Department of World Languages currently offers German as WL courses

## Arabic

Courses in Arabic are designed for students whose interests and career plans have an international or multi-ethnic focus. Students who study Arabic will develop listening, speaking, reading, and writing fluency at the beginning and intermediate levels.

## Arabic Faculty

Mohamed Brahimi, Instructor (2009) B.A., M.A., Suffolk University.

## Arabic Courses

AB-101 Beginning Arabic I
LASC Categories: TLC
Introduction to the Arabic language and cultures of the Arabic-speaking world.
3 Credits
AB-102 Beginning Arabic II
LASC Categories: TLC
Prerequisites: AB-101
A continuation of AB 101, designed for students to acquire additional vocabulary, grammar, and reading ability.
3 Credits
AB-210 Intermediate Arabic I
LASC Categories: TLC
Prerequisites: AB-102
Instruction in advanced rules of Arabic grammar and verb system, and in advanced writing and reading. 3 Credits

AB-21 1 Intermediate Arabic II
LASC Categories: TLC
Prerequisites: AB-210
Reading and discussion of texts dealing with literature, arts, geography, history, and culture of Arabic-speaking world.
3 Credits

## French

## Department of World Languages

Courses in French are designed for students whose interests and career plans have an international or multi-ethnic focus. Students who enroll in French courses will develop listening, speaking, reading, and writing fluency and will study the culture, history and literature of the people who use the language.

Alpha Mu Gamma, a national honor society in foreign languages, recognizes excellence in the study of foreign languages. Any Worcester State University student who receives two "A's" in French at any level at Worcester State University and a 3.0 cumulative G.P.A. is eligible to join. Application for membership is in early February. Contact Professor Naida Saavedra.

## Placement for French Courses

Students are encouraged to discuss placement with the World Languages Department Chair. The following are intended to be general placement guidelines to help students with previous experience with French:
$0-2$ years of French in high school: FR-101
1-2 years of French in high school: FR-102
3 years of French in high school: FR-210
4 years of French in high school: FR-211
Students who have earned the Commonwealth of Massachusetts' Seal of Biliteracy in French are awarded 12 credits in French, equivalent to FR-101, FR-102, FR-210, and FR-211.

Native speakers of French or students with advanced knowledge of the language are encouraged to take the College Level Examination Program (CLEP) test in order to earn up to 12 credits in French. Interested students should contact the Academic Success Office to inquire about the CLEP test in French.

## French Courses

## FR-101 Beginning French I

LASC Categories: TLC, GP
Fundamentals of pronunciation, patterns of speech, basic structures. Develops listening, speaking, reading, and writing skills.
Fall and Spring and every year. 3 Credits
FR-102 Beginning French II
LASC Categories: TLC, GP
Continuation of FR101.
Fall and Spring and every year. 3 Credits

## FR-210 Intermediate French I

LASC Categories: TLC, GP
Prerequisites: FR-102
Review of fundamentals and presentation of more complex grammatical features; development of conversational skills; selected readings; written and oral composition.
Fall and Spring and every year. 3 Credits

## FR-211 Intermediate French II

LASC Categories: TLC, GP
Prerequisites: FR-210
Continuation of FR210.
Fall and Spring and every year. 3 Credits
FR-321 Advanced French Composition I
LASC Categories: TLC, WAC
Prerequisites: EN-102 or EN-250 or EN-202
Practice in diverse composition styles as well as review of grammar, and introduction to reading French texts. Conducted in French. [Prerequisite: Two 200-level French courses.]
Other or on demand. 3 Credits

## FR-323 Advanced French Conversation

LASC Categories: TLC
Prerequisites: FR-211 or any 300 level French course.
Development of fluency and accuracy, free discussions, prepared oral presentations, practical exercises in oral expression. Conducted in French. Spring only and other or on demand. 3 Credits

## FR-331 General French Civilization

LASC Categories: TLC
Prerequisites: 6 credits department FR At level 200; Significant aspects of French history, geography, cultural achievements to world War I. Conducted in French. [Prerequisite: Two FR 200 level courses or equivalent.]
Other or on demand. 3 Credits

FR-341 Introduction to French Literature
LASC Categories: TLC, GP, DAC
Prerequisites: 6 credits department FR At level 200;
Major periods and genres of French literature;
for majors and minors. Conducted in French.
[Prerequisites: Two FR 200 level courses or equivalent.]
Other or on demand. 3 Credits
FR-342 Survey of French Literature I
LASC Categories: TLC
Prerequisites: 6 credits department FR At level 200; Selections from the epic, drama, lyric poetry, and the major prose writers to major authors of the classical period. Conducted in French. [Prerequisite: Two FR 200 level courses or equivalent.]
Every 2-3 years. 3 Credits

## FR-344 Survey of French Literature II

LASC Categories: TLC
Prerequisites: 6 credits department FR At level 200;
Major authors of the eighteenth and nineteenth
centuries. Conducted in French. [Prerequisites: Two
FR 200 level courses.]
Every 2-3 years. 3 Credits

## FR-346 Twentieth Century French Literature

LASC Categories: TLC, GP
Prerequisites: 6 credits department FR At level 200; Major novelists, dramatists and poets from the turn of the century to the present. Conducted in French. [Two FR 200 level courses or equivalent.] Other or on demand. 3 Credits

## FR-403 Teaching Assistantship French

Teaching Assistants in French will regularly attend the beginning or intermediate-level classes to which they are assigned to assist the professor. Suggested for advanced students of French.
Other or on demand. 3 Credits
FR-408 Directed Study: French
Other or on demand. 3 Credits

## Latin American and Latinx Studies Minor

The minor in Latin American and Latinx Studies offers an interdisciplinary approach that allows students to develop a better appreciation for and understanding of multifaceted aspects central to contemporary and past Latin American societies and/or to Latinx communities in the U.S., such as their histories, literatures, and cultural knowledge; identity, Latinidad, and Diaspora; systems of power
and privilege; the Arts -- visual, performing, and/ or alternative manifestations -- as mechanisms to express identity, ideology, or resistance; and sociopolitical processes, among other topics. Due to its nature, the Minor in Latin American and Latinx Studies also provides new opportunities for service learning and community engagement. Courses are to be taught in English unless noted otherwise (18 credits).

1-2 content courses from SP or LA (LA courses will be offered in English unless otherwise noted) (3-6 credits)

| Code | Title | Credits |
| :---: | :---: | :---: |
| LA-150 | Introduction to Latinx Cultures in the US | 3 |
| LA-350 | Immigration, Dreamers, and Latinx Youth Issues | 3 |
| LA-355 | Latin American Fiction | 3 |
| LA-360 | Survey of Latin American Cinema | 3 |
| SP-293 | Health and the Latino Community | 3 |
| SP-332 | Cultures of Latin America | 3 |
| SP-333 | Hispanic Presence in US | 3 |
| SP-346 | Latin American Theater | 3 |
| SP-347 | Latin American Colonial Literature | 3 |
| SP-349 | Spanish-American Literature | 3 |
| SP-401 | Advanced Study. Special Topics ${ }^{1}$ | 3 |

Two Spanish language courses or satisfied via CLEP (6 credits)

| Code | Title | Credits |
| :--- | :--- | ---: |
| SP-101 | Beginning Spanish I | 3 |
| SP-102 | Beginning Spanish II | 3 |
| SP-210 | Intermediate Spanish I | 3 |
| SP-211 | Intermediate Spanish II | 3 |
| SP-321 | Advanced Spanish <br> Composition I | 3 |
| SP-323 | Advanced Spanish <br> Conversation Through Film | 3 |
| SP-390 | Spanish for Native Speakers | 3 |

2-3 electives from other departments or taken abroad (with prior approval) (6-9 credits)

| Code | Title | Credits |
| :---: | :---: | :---: |
| HI-213 | Colonial Latin America | 3 |
| HI-214 | Modern Latin America | 3 |
| HI-226 | Latin American History Through Film | 3 |
| HI-230 | Nicaragua, the US and the World | 3 |
| HI-247 | Central America and the Caribbean | 3 |
| HI-267 | US-Latin American Relations | 3 |
| HI-333 | Women in Latin America | 3 |
| PO-222 | Latin American Politics | 3 |
| SO-228 | Latina-Latino Experiences in the U.S. and the World | 3 |
| S0-307 | Puerto Rican Diaspora | 3 |

The same SP courses for the Latin American and Latinx Studies minor cannot be applied to a student's Spanish major or Spanish minor. Students must take at least one course with substantial content on Latin America and at least one course with substantial content on Latinx Studies. Other courses may be approved in prior consultation with the student's advisor for the Latin American and Latinx Studies minor.
${ }^{1}$ SP-401: "Special Topics" courses must have Latin American and/or Latinx content to be applied towards the minor. Students should receive preapproval from their SP advisors during the advising period.

## Spanish

Department of World Languages
Courses in Spanish are designed for students whose interests and career plans have an international or multi-ethnic focus. Students who major or minor in a language will develop listening, speaking, reading, and writing fluency and will study the culture, history and literature of the people who use the language.

Students with interest in business, international relations, careers in the health professions, nursing, education, global studies, ethnic studies, social work, or criminal justice -among other disciplines- are strongly encouraged to take Spanish courses, as the demand in the global marketplace for individuals who are can demonstrate cultural awareness and communicate in more than one language increases daily.

## Spanish Proficiency Test:

The Spanish proficiency test allows students to earn WSU credit for Spanish language classes FOR FREE. It also determines at what level students should begin taking Spanish classes at WSU.

Students must select the level that best corresponds with their knowledge and pass the test at that level. If they pass the test, then they earn credit for that level and all previous levels. There are four tests available, one for each course of the language sequence: 101, 102,210 , and 211.

Please refer to the FAQ for more information. If you have any other questions not answered here or need to make an appointment to take the test, please email spanishtest@worcester.edu.

Institutional Credit for Spanish Proficiency Tests
Students who pass the department's Spanish proficiency tests will received credit to be applied are as follows:
\# If a student passes the SP-101 proficiency test, they will receive credit for SP-101.
\# If a student passes the SP-102 proficiency test, they will receive credit for SP-101 and SP-102.
\# If a student passes the SP-210 proficiency test, they will receive credit for SP-101, SP-102, and SP-210.
\# If a student passes the SP-211 proficiency test, they will receive credit for SP-101, SP-102, SP-210 and SP-211.

Native or Heritage Speakers of Spanish should enroll in 300-level courses

Students who have earned AP credit in Spanish should enroll in 300-level courses.

Students who have earned a Seal of Biliteracy in Spanish will receive WSU credit for SP-101, SP102, SP-210, and SP-211, and should enroll in 300-level courses.

Study-Abroad opportunities are available for language study in several Spanish-speaking countries.

Alpha Mu Gamma, a national honor society in foreign languages, recognizes excellence in the study of foreign languages. Any Worcester State University student who receives two "A's" in Spanish, or two "A's" in French, at any level and who has a 3.0 cumulative GPA is eligible to join. Application for membership is in early February. Contact Dr. Naida Saavedra: nsaavedra@worcester.edu

## Spanish Clinic

The Spanish Clinic is a free tutoring service where Spanish students of any level can practice their language skills. Advanced Spanish majors work as tutors to help their peers with grammar reviews, homework, conversational practice, feedback on class presentations, etc.

The Spanish Clinic is located in SUL 302-B. Open daily, from early morning to mid-afternoon, during regular semesters. No appointment needed.

For more information, please contact Dr. Elizabeth Osborne: eosborne1@worcester.edu

## Spanish Club

The Spanish Club is a student organization at WSU open to Spanish students, Spanish speakers, or anyone interested in the language and cultures of the Hispanic world. The Spanish Club holds activities on a regular basis, such as movie nights, cooking lessons, dancing events, board-game evenings, open mics, etc.

For more information, please contact Dr. Naida Saavedra, faculty advisor to the club: nsaavedra@worcester.edu

- Spanish Translation Major (p. 514)
- Spanish Major, Concentration in Spanish for the Professions (p. 515)
- Spanish Major, Concentration in Spanish/ Education (p. 517)
- Spanish Minor (p. 519)
- Spanish Minor for Health Professionals (p. 519)


## Spanish Faculty Spanish Courses

## SP-101 Beginning Spanish I

LASC Categories: TLC, GP
Basic oral and written proficiency for daily communication; may be taken as a self-contained unit or as a basis for further development. Audiovisual method. Closed to students who have already taken a 300-level* Closed to Native/Heritage speakers. Native and/or Heritage speakers are encouraged to take SP390 instead. * Unless recommended to a specific student by the Department of World Languages, on a per-case basis. Fall and Spring and every year. 3 Credits

## SP-102 Beginning Spanish II

LASC Categories: TLC, GP
Continuation of SP101. This course is intended for students with at least one year of past Spanish instruction in high school, or one semester in college at the beginning level. Closed to students who have already taken a 300-level Spanish course*. Native and/or Heritage speakers are encouraged to take SP390 instead*. * Unless recommended to a specific student by the Department of World Languages, on a per-case basis.
Fall and Spring and every year. 3 Credits
SP-191 Special Topics in Spanish
LASC Categories: TLC, DAC, GP
An introductory level course in Spanish on current or specialized topics.
Every year. 3 Credits

## SP-193 First Year Seminar Spanish

LASC Categories: FYS
Introductory level course covering topics of special interest to first year students. Offered only as a First Year Seminar.
Every year. 3 Credits

## SP-210 Intermediate Spanish I <br> LASC Categories: TLC, GP

This course is a review of language constructions and everyday vocabulary at a slighter faster pace than an elementary course. Grammar review starts with the most basic structures, such as present, preterite, and imperfect tenses, ser/estar, por/para, command forms, pronouns, and ends with present subjunctive. Vocabulary fields include feelings and emotions; urban living; family relationships; the media; and the environment. Readings, videos, and short films related to different Spanish speaking countries will add a cultural component to the course. This course is intended for students with 2 years of past Spanish instruction. Closed to students who have already taken a 300-level* Closed to Native/Heritage speakers. Native and/or Heritage speakers are encouraged to take SP390 instead. * Unless recommended to a specific student by the Department of World Languages, on a per-case basis. Fall and Spring and every year. 3 Credits

## SP-211 Intermediate Spanish II

LASC Categories: TLC, GP
Prerequisites: SP-210 or appropriate placement score.
Continuation of SP210. [Formerly SP213.] Closed to students who have already taken a 300 -level* Closed to Native/Heritage speakers. Native and/or Heritage speakers are encouraged to take SP390 instead. * Unless recommended to a specific student by the Department of World Languages, on a per-case basis. Fall and Spring and every year. 3 Credits
SP-290 Introduction to Medical Spanish I
LASC Categories: ICW, TLC
Prerequisites: SP-211 or above or have 3 years of language instruction.
Students will learn basic phrases in Spanish as related to their daily activities in various health fields. This course focuses on language used in health professions as well as cultural situations, which doctors, technicians, nurses, and EMTs may experience. By familiarizing students with conversational and medical Spanish, it will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between doctors and patients. Designed for students to gain beginning-level competence in Medical Spanish topics such as pediatrics, women's health, physical exams, dental care, checkups, and hospital visits. Fall only and every year. 3 Credits

## SP-291 Introduction to Medical Spanish II LASC Categories: ICW, TLC

Prerequisites: SP-211 or above or have 3 years of language instruction.
Students will learn basic phrases in Spanish as related to their daily activities in various health fields. This course focuses on language used in health professions as well as cultural situations, which doctors, technicians, nurses, and EMTs may experience. By familiarizing students with conversational and medical Spanish, it will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between doctors and patients. Designed for students to gain beginning-level competence in topics such as nutrition, emergencies, diabetes, hypertension, cancer, STIs, and addiction.
Fall only and every year. 3 Credits

## SP-292 Spanish for Women's Health

LASC Categories: GP, ICW, DAC
Prerequisites: SP-211 or above, or 3 years of language instruction.
In this course, students will develop communication skills in Spanish using information and vocabulary related to women's health. The content of this course focuses on language used in health professions as well as cultural situations. By familiarizing students with conversational Spanish and medical Spanish, this course will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between professionals and Spanish-speakers. Finally, the course's focus on cultural competency interrogates intersections between women's health and topics including but not limited to politics, economics, gender, sexuality, race and age. Spring only and every 2-3 years. 3 Credits

## SP-293 Health and the Latino Community LASC Categories: HBS, TLC

Prerequisites: SP-211 or above or have 3 years of language instruction.
Students will explore the ways in which language and culture shape the approach to health and healthcare experiences of Latinos in the US, and the factors that contribute to health disparities among this group (social, cultural, economic, environmental, and biological). Students will examine how health outcomes and risk factors are arrayed across different generations. Language barriers and sociolinguistic issues will also be studied. Students will identify and discuss causes of health inequities, survey major Latino health issues, and analyze the current and future context of Latino health and healthcare in the U.S.
Fall only and every $2-3$ years. 3 Credits

## SP-294 Spanish for the Nutrition and Dietitian Professional <br> LASC Categories: GP, ICW <br> Prerequisites: SP-211 or above, or 3 years of

 language instruction.Students will develop their reading, writing, speaking, and listening skills in Spanish using information and vocabulary related to health, nutrition and dietetics. The content of this course focuses on language used in medical professions as well as cultural situations, which doctors, nutritionists, dietitians, nurses, public health workers, social workers, and other health professionals may experience. By familiarizing students with conversational Spanish and medical Spanish, this course will enable students to apply their learning to real-world situations, to assist in communications, and ultimately to break down the barrier between professionals and Spanish-speakers. Spring only and every 2-3 years. 3 Credits

## SP-295 The Human Body: Spanish for Anatomy LASC Categories: ICW, TLC

This course focuses on the study of the Spanish terminology and basic grammatical structures needed to communicate effectively with Spanishspeaking patients and/or their families in a medical/ health setting. It introduces the student to a wide array of vocabulary particular to the human body, body systems, organs, and their functioning, as well as some common diseases (and their symptoms) that affect each system. Class time will be devoted to practicing new vocabulary, via role-play, conversations with classmates, readings, and written activities. Conducted in Spanish.
Fall only and every 2-3 years. 3 Credits

## SP-321 Advanced Spanish Composition I

LASC Categories: TLC, WAC
Prerequisites: SP-211 or appropriate placement score.
Facility in prose writing; study of style of selected authors; variety of expression through word discrimination, and advanced grammatical structures. [Prerequisites: Two SP 200 level courses.]
Every year. 3 Credits
SP-322 Advanced Spanish Composition II
LASC Categories: TLC, WAC
Prerequisites: SP-321
Continuation of SP321.
Spring only and every year. 3 Credits

## SP-323 Advanced Spanish Conversation Through

 FilmLASC Categories: TLC, USW
Prerequisites: Two 200-level or above Spanish courses.
The main objective of this course is to develop the student's oral proficiency and communication skills, while building on vocabulary, and learning about different aspects of the Hispanic cultural world with a special emphasis on immigration issues. Regarding the class format, it will be mainly based on group/pair discussions and debates, in which the students will ask questions, express their views, elaborate on their ideas, and defend them by providing supporting examples drawn from their own experiences, analysis, or comparisons.
Fall and Spring and every year. 3 Credits

## SP-326 Spanish for the Professions

LASC Categories: GP, TLC
Prerequisites: SP-321.
Intensive practice with language and documents used in private and public sectors including business, medicine, communication, education and social services.
Fall and Spring and every year. 3 Credits

## SP-327 Introduction to Translation

Prerequisites: SP-321.
SP-327 will prepare you for careers in translation and will satisfy professional and academic requirements. It seeks to introduce the student to the techniques required for translation in a competitive environment. Within the context of the development of greater cross-cultural awareness, it will develop the following language skills for business purposes: speaking, listening comprehension, reading, writing, and translation.
Spring only and every year. 3 Credits

## SP-331 Spanish Civilization

LASC Categories: CA
Prerequisites: SP-321
An historical survey of Spanish social, cultural, and political life. Conducted in Spanish.
Spring only and every year. 3 Credits

## SP-332 Cultures of Latin America

LASC Categories: DAC, GP
Prerequisites: SP-321.
Introduction to the cultures and history of Latin America from pre-Columbian times to the present day. This course will introduce students to colonial, modern and contemporary cultural, historical and political issues that influenced the development of Latin American identities. The course is taught in Spanish.
Fall only and every year. 3 Credits
SP-333 Hispanic Presence in US
LASC Categories: GP, USW, DAC
Prerequisites: SP-321
Socio-cultural study of Hispanics in the United States, with a focus on major contemporary issues. Conducted un Spanish. [Prerequisites: Two SP 200 level courses.]
Fall only and every year. 3 Credits

## SP-341 Readings in Spanish Literature

Prerequisites: SP-321, and SP-323 or SP-324
Selected masterpieces from Middle Ages to present; social, cultural, and stylistic features of different periods. Recommended as a first course in Spanish literature.
Every 2-3 years. 3 Credits

## SP-346 Latin American Theater

Prerequisites: SP-321 or SP-390.
This course explores the historical and aesthetic development of Latin American Theater, focusing upon the particular factors that distinguish this theater from the Western European tradition. We will analyze dramatic texts (from Argentina, Uruguay, Perú, México, Puerto Rico, Chile, Cuba, and Colombia), performances, and critical and theoretical perspectives to engage in the following questions: How does theater create and represent social and political transformation? How might we reevaluate civic responsibility and accountability through the study of audience? And, finally what are the major innovations in Latin American theater and performance in the 20th \& 21 st Centuries?
Other or on demand and every 2-3 years. 3 Credits

## SP-347 Latin American Colonial Literature

Prerequisites: SP-321 or SP-390.
This course will examine the colonial history of the American continent as interpreted through the various historical accounts written by eyewitnesses of the conquest. We will cover two centuries of writings from the late fifteenth to the seventeenth century. We will examine many historical accounts of the conquest, letters, documents, poetry and other historical artifacts to learn of the social, political, religious and economical significance of the colonial era. It combines an overview of the political economy of the region over three centuries with a study of how social groups interacted among themselves and with imperial rule over time.
Other or on demand and every 2-3 years. 3 Credits

## SP-348 Contemporary Spanish Literature

Prerequisites: SP-321
Literary works from the generation of 1898 to the present.
Every 2-3 years. 3 Credits

## SP-349 Spanish-American Literature

Prerequisites: SP-321
Representative works from South and Central American authors from the colonial period to the present.
Fall only and every 2-3 years. 3 Credits

## SP-350 Advanced Spanish Grammar <br> LASC Categories: TLC

Prerequisites: SP-321 or SP-390
This applied linguistics advanced class provides a background of Spanish grammar, and delves into topics of the Spanish language that are usually challenging for English-speaking learners of Spanish. The goals are to clarify important aspects of the Spanish language and related cultural features, including uses of technology and assessment. Spring only and every 2-3 years. 3 Credits
SP-352 Lexicography and Terminology: Computer Assisted Translation (cat)
Prerequisites: SP-321.
This groundbreaking course provides both a practical and a theoretical framework to the study of lexicography and collection of terminology, an essential adjunct to the work of the translator. The role of international standards is pointed out, and principles of construction of terminological banks elaborated. Terminographic procedures in the context of computation technology and terminology management systems are discussed such as the use of the most Computer Assisted Translation (CAT) tools.
Spring only and every 2-3 years. 3 Credits

## SP-355 Effective Teaching of a Foreign Language

Examines and evaluates effective teaching techniques and strategies as well as secondlanguage acquisition theory for middle/secondary foreign language classrooms. The course is conducted in English for anyone interested in foreign language teaching. All students should have an advanced proficiency of a foreign language, meaning they have taken at least one 300-level course or its equivalent.
Fall only and every 2-3 years. 3 Credits

## SP-390 Spanish for Native Speakers <br> LASC Categories: TLC, DAC

This course is designed for native or heritage speakers of Spanish, who have oral proficiency but may not have received formal training in the language. These students were raised speaking Spanish at home. Therefore, this course is designed to work with the language base students already possess. All of four language skills (listening, speaking, reading, and writing) are emphasized, however, the purpose of the course is to develop reading and writing skills through cultural-related activities.
Fall and Spring and every year. 3 Credits
SP-401 Advanced Study: Special Topics
Special topics in language, literature, civilization or field work of mutual interest to student and instructor. For advanced students.
Other or on demand. 3 Credits

## SP-402 Independent Study: Spanish

Study of a special topic. Both content and eligibility are subject to departmental guidelines and approval. Other or on demand. 1-6 Credits

## SP-403 Teachng Assistantship in Spanish

Teaching Assistants in Spanish will regularly attend the beginning or intermediate-level Language classes to which they are assigned to assist the professor. Other or on demand. 3 Credits

## SP-408 Directed Study: Spanish

Directed study offers students, who because of unusual circumstances may be unable to register for a course when offered, the opportunity to complete an existing course with an established syllabus under the direction and with agreement from a faculty member.
Other or on demand. 3 Credits

## SP-453 Medical Translation

Prerequisites: SP-321 and SP-327.
This course focuses on building ENG/SPAN, SPAN/ ENG translation competence in a health care setting, and provides guided practice in the translation of actual documents within the bio-medical and medical-legal fields. The course covers linguistic concepts, translation techniques, cultural \& linguistic issues, professional ethics, medical genres \& terminology, resources, and translation exercises. Through weekly translations, reading assignments, and text-analysis activities students will familiarize themselves with health text subgenres, such as patient education pamphlets, lab results, health certificates, prescriptions, informed consents, or health proxies. Students will learn to detect frequent translation challenges in health texts, and develop problem-solving strategies for these issues. Fall only and every $2-3$ years. 3 Credits
SP-454 Legal Translation: Eng/Span-Span/Eng Prerequisites: SP-321 and SP-327.
This course is designed to provide a general overview of translation practices, techniques and specialized terminology in the discipline of legal translation. The main objective of this class is to teach students how to switch safely and accurately between the source and the target language (Spanish/English English/Spanish). This class will include an intensive study of vocabulary, grammar, sentence structure, and translation difficulties in specialized legal texts. This class will be conducted in Spanish as the base language for lectures. However, given the nature of the course of study, we will fluctuate between Spanish and English, depending on the object. Fall only and every 2-3 years. 3 Credits

SP-475 Internship: Spanish
LASC Categories: CAP
Prerequisites: SP-321 and SP-322 and SP-326
Prerequisites or Corequisite: SP-327
Provides majors practical experience in areas where their speaking, reading, and writing skills may be applied.
Every year. 3 Credits
Note: Courses in other foreign languages such as German, Chinese, French and Arabic, are offered when demand warrants and staffing permits.

## Spanish Program Learning Outcomes

Linguistic and Content-based Knowledge
Listening: Students should be able to understand spoken language, even when delivered at native-level speed, and to summarize and paraphrase the main ideas of extended speech.

Reading: Students should be able to understand complex and/or extended works on general topics in Spanish, and low-difficulty texts that are discipline specific.

Speaking: Students should be able to express themselves clearly, accurately and effectively in a variety of communicative contexts and situations. They will be able to sustain an advanced level of spoken interaction with native speakers in academic, professional and informal settings.

Writing: Students should be able to write clearly, precisely, and cohesively using the disciplinary conventions, and use field-specific terminology. Students should be able to write expository, analytical or argumentative texts with a good range of vocabulary and syntax, and with attention to register.

Literary Texts and Movements: Students should be able to identify major literary, artistic, and cultural figures of the Spanish-speaking world and their main works. Students should be able to demonstrate knowledge of different approaches, principles, and schools of literary analysis (e.g. stylistic, historical, intertextual analyses); distinguish the principal characteristics of major trends, periods, and movements in the Hispanic literary traditions; recognize the limitations of such categorization, and consider that conventions and canons may be questioned.

Socio-Cultural, Historical Concepts: Students should be able to situate literary works in the context of their historical, cultural, and aesthetic traditions; to demonstrate knowledge of significant historical events that have impacted Spanish/ Spanish American literature and culture across the centuries and to consider relationships between culture, society, history, politics, religion, and economics in the production of texts.

## Intercultural Competence

Students should be able to demonstrate an awareness of the linguistic, ethnic, racial, religious, cultural, and social diversity of Latin America, Spain, and the U.S., and to work professionally with these different groups.

## Global Citizenship

Students should be able to recognize and respect difference, and to engage the perspective of others to better understand and critically reflect on their own world view. Student should have developed a critical understanding of the U.S. and abroad experience. Students should be able to discuss contemporary ethical issues related to Latin America and Spain and to act with informed awareness of contemporary issues in their historical contexts.

## Independent Learning

Students should be able to discover meanings and solutions for themselves through active participation in their own learning process. They should be able to adapt the knowledge and skills they have learned to new experiences and learning opportunities, to integrate multiple ways of knowing into their daily lives, and to develop attitudes that will form the foundation for a life-long interest and continued engagement with Iberian and Latin American cultures.

## Critical Thinking

Students should be able to apply analytical skills to the interpretation of a wide spectrum of cultural phenomena including art, film and popular media. Students should be able to decipher implicit meanings beyond the surface level of the text through multiple modes of inquiry; to discern between well-argued and poorly articulated points of view and to use this critical perspective to formulate their own arguments. Students should be prepared to recognize stated and unstated assumptions and to judge the validity of inferences, and to assess the claims of competing interpretations of a literary text.

## Information Literacy

Students will be able to support their judgments with textual evidence, bibliographical research and relevant secondary sources. They will be prepared to appraise the merits of ideas and
materials from a variety of bibliographic sources, to differentiate between popular and scholarly material, to understand the principles of thorough and scrupulous documentation of secondary sources in order to avoid plagiarism, and to apply the standard citation format of literary studies (MLA).

## Spanish Translation Major

Spanish programs have been configured to maximize the potential of the student in today's professional climate as well as to prepare the student for admittance into graduate programs at other institutions. Students who major in Spanish will develop fluency in listening, speaking, reading and writing skills and will study the culture, history and literature of Spain and the Americas.

In addition to general linguistic and cultural knowledge, the major in Spanish Translation will provide students with professional training, tools, skills, and hands-on experience to join the Translation profession. During the program of study, students will be introduced to the main translation techniques and problem solving strategies, software and computer assisted tools, and will complete general translation exercises. Later in the program, students will delve into the translation of more specialized texts, in particular in the legal and medical disciplines both fields in very high demand. As a culminating experience, students will complete a capstone in the form of an internship.

Students competing the Spanish Translation major are strongly encouraged to minor in Criminal Justice and/or Health Sciences, as a good understanding of the subject matter as well as terminology acquisition are key to successful professional translators.

A minimum grade of 70 (C-) is required for all SP major courses.

## Requirements for a Major in Spanish

| Code | Title | Credits <br> Required Courses |
| :--- | :--- | ---: |
| $(\mathbf{2 7}$ <br> SP-210 | Intermedits) |  |
| \& SP-211 | 1,2 <br> 1,2 | 6 |
| SP-321 | Advanced Spanish I <br> Composition I |  |


| SP-327 | Introduction to Translation | 3 |
| :--- | :--- | ---: |
| SP-350 | Advanced Spanish Grammar | 3 |
| SP-352 | Lexicography and | 3 |
|  | Terminology: Computer - |  |
|  | Assisted Translation (cat) |  |
| SP-453 | Medical Translation | 3 |
| SP-454 | Legal Translation: Eng/Span- | 3 |
|  | Span/Eng |  |
| SP-475 | Internship: Spanish | 3 |
| Electives |  | (9 |
|  |  | credits) |

Select 3 courses from the following: 9

| SP-322 | Advanced Spanish <br> Composition II |
| :--- | :--- |
| SP-323 | Advanced Spanish <br> Conversation Through Film |
| SP-326 | Spanish for the Professions |
| SP-331 | Spanish Civilization |
| SP-332 | Cultures of Latin America |
| SP-333 | Readings in Spanic Presence in US <br> SP-341 |
| SP-348 | Contemporary Spanish <br> Literature |
| SP-349 | Spanish-American Literature <br> SP-401 | | Advanced Study: Special |
| :--- |

Total Credits
36
${ }^{1} 6$ credits maximum: These courses may be waived by oral and/or written examination
${ }^{2}$ Students with advanced knowledge of Spanish should begin at 300-level.
${ }^{3}$ Required of all students unless exempted by the Department of World Languages.

A minimum grade of $70(\mathrm{C}$-) is required for all courses in the Spanish Major.

Sample Timetable for Completion of Degree: Spanish

## Year One

Semester One Credits
LASC First-Year Seminar (FYS) 3 (p. 50)

| EN-101 | College Writing I | 3 |
| :--- | :--- | :--- |
| SP-210 | Intermediate Spanish I | 3 |
| LASC | LASC Elective $(\mathrm{NSP})($ p. 58) | 3 |


| LASC | LASC Elective (QR/MA) | 3 |
| :---: | :---: | :---: |
|  | Credits | 15 |
| Semester Two |  |  |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| SP-211 | Intermediate Spanish II | 3 |
| LASC | LASC Elective (QR) (p. 59) | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
|  | Credits | 15 |
| Year Two |  |  |
| Semester Three |  |  |
| SP-321 | Advanced Spanish | 3 |
|  | Composition I |  |
| SELECT | General Elective | 3 |
| SP-300/400 Spanish elective at 300/400 level |  | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 4 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | Credits | 16 |
| Semester Four |  |  |
| SP-327 | Introduction to Translation | 3 |
| SP-350 | Advanced Spanish Grammar | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
| SELECT General Elective |  | 3 |
|  | Credits | 15 |
| Year Three |  |  |
| Semester Five |  |  |
| SP-453 | Medical Translation | 3 |
| SP-300/400 Spanish Elective at 300/400 Level |  | 3 |
| SELECT | General Elective | 3 |
| LASC | LASC Elective (ICW) (p. 55) | 3 |
| LASC | LASC Elective (QAC) | 3 |
|  | Credits | 15 |


| Semester Six |  |  |
| :--- | :--- | ---: |
| SP-352 | Lexicography and |  |
|  | Terminology: Computer - |  |
|  | Assisted Translation (cat) |  |
| LASC | LASC (TLC) | 3 |
| LASC | LASC Elective (DAC) | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Year Four

## Semester Seven

| SP-454 | Legal Translation: Eng/Span- <br> Span/Eng | 3 |
| :--- | :--- | :--- |
| SP-3XX+ | SP Major Literature Elective | 3 |


| SELECT | General Elective | 3 |
| :---: | :---: | :---: |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
| Semester Eight |  |  |
| SP-475 | Internship: Spanish | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | 15 |
|  | Total Credits | 121 |
| Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog. |  |  |
| Spanish Major, Concentration in Spanish for the |  |  |

## 36 credits

The Spanish Major with a concentration in Spanish for the Professions is designed for students whose interests and career plans have an international, interdisciplinary, or multi-ethnic focus, or who wish to become bilingual professionals in the realms of business, international relations, health professions, nursing, education, psychology, social work, politics, or criminal justice, among other fields.

In addition to developing listening, speaking, reading, and writing fluency, students who major in Spanish with a concentration in Spanish for the Professions will study the culture, history and literature of the people who use the language, as the demand in the global marketplace for individuals who can demonstrate cultural awareness and communicate in more than one language increases daily.

Students completing the Spanish major with a concentration in Spanish for the Professions must complete a second major or minor in a different discipline.

As a culminating major experience, students in the Spanish for the Professions concentration will complete an Internship that combines and puts into practice their two specializations.

A minimum grade of 70 (C-) is required for all SP major courses.

## Requirements for a Major in Spanish, Concentration in Spanish for the Professions

| Code | Title | Credits |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { SP-210 } \\ & \& \text { SP-211 } \end{aligned}$ | Intermediate Spanish I and Intermediate Spanish II ${ }^{1}$ | 6 |
| SP-321 | Advanced Spanish Composition I ${ }^{2}$ | 3 |
| SP-323 or SP-390 | Advanced Spanish Conversation Through Film Spanish for Native Speakers | 3 |
| SP-326 | Spanish for the Professions | 3 |
| SP-327 | Introduction to Translation | 3 |
| SP-331 | Spanish Civilization | 3 |
| SP-332 | Cultures of Latin America | 3 |
| or SP-333 | Hispanic Presence in US |  |

Spanish Literature courses ( 3 credits minimum) 3
Internship in Spanish (3 credits minimum) 3
Spanish Electives in Advanced Language, 6
Civilization, Literature, Internship or Special
Topics in Spanish for the Professions
Total Credits
${ }^{1} 6$ credits maximum: These courses may be waived by oral and/or written examination.
${ }^{2}$ Required of all students unless exempted by the Department of World Languages.

There is no second foreign language requirement for this concentration.

A minimum grade of C - is required for all courses in the Spanish Major.

## Sample Timetable for Completion of Degree: Spanish for the Professions

## Year One

| Semester One | Credits |  |
| :--- | :--- | ---: |
| LASC | First-Year Seminar (FYS) <br> (p. 50) | 3 |
|  | College Writing I | 3 |
| EN-101 | Intermediate Spanish I | 3 |
| SP-210 | LASC Elective (QR) (p. 59) | 3 |
| LASC | LASC Elective (GP) (p. 51) | 3 |
| LASC | Credits | $\mathbf{1 5}$ |

## Semester Two

| EN-102 | College Writing II | 3 |
| :---: | :---: | :---: |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| SP-211 | Intermediate Spanish II | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 3 |
|  | Credits | 15 |
| Year Two |  |  |
| Semester Three |  |  |
| SP-321 | Advanced Spanish Composition I | 3 |
| $\begin{aligned} & \text { SP-323 } \\ & \quad \text { or SP-390 } \end{aligned}$ | Advanced Spanish Conversation Through Film or Spanish for Native Speakers | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 4 |
| SELECT | General Elective | 3 |
| LASC | LASC Elective (TLC) (p.61) | 3 |
|  | Credits | 16 |

Semester Four

| LASC | LASC Elective (CA) (p. 48) | 3 |
| :--- | :--- | ---: |
| SELECT | General Elective | 3 |
| LASC | LASC Elective (HBS) (p. 53) | 3 |
| SELECT | General Elective | 3 |
| SP3xx+ | Upper Level Spanish Elective | $\mathbf{3}$ |
|  | Credits | $\mathbf{1 5}$ |

Year Three

## Semester Five

| SP-326 | Spanish for the Professions | 3 |
| :---: | :---: | :---: |
| $\begin{aligned} & \text { SP-332 } \\ & \quad \text { or SP-333 } \end{aligned}$ | Cultures of Latin America or Hispanic Presence in US | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |


|  | LASC Elective (ICW) (p. 55) | 3 |
| :--- | :--- | ---: |
|  | Credits | 15 |
| Semester Six |  |  |
| SP-327 | Introduction to Translation | 3 |
| SP-331 | Spanish Civilization | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Year Four |  |  |
| Semester Seven |  |  |
| SP-3XX+ | SP Major Elective | 3 |
| LASC | Capstone | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
| Semester Eight |  |  |
| SP-475 | Internship: Spanish | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
| SELECT | General Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |
|  | Total Credits | $\mathbf{1 2 1}$ |
|  |  |  |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Spanish Major, Concentration in Spanish/Education

The Spanish Major with a Minor in Secondary Education is intended for those students seeking a K-12 Teaching Certification in Spanish.

This program has been configured to maximize the potential of the student in today's professional climate, consolidate their study of the language, as well as to prepare the student for admittance into graduate programs.

Students who major in Spanish will develop fluency in listening, speaking, reading and writing skills and will study the culture, history and literature of Spain and the Americas.

## Requirements for a Major in Spanish with Concentration in Spanish/Education

36 credits including:

| Code | Title | Credits |
| :--- | :--- | ---: |
| SP-210 |  |  |
| \& SP-211 | Intermediate Spanish I <br> and Intermediate Spanish II <br> 1,2 | 6 |
| SP-321 | Advanced Spanish <br> Composition I ${ }^{3}$ | 3 |
| SP-323 | Advanced Spanish <br> Conversation Through Film | 3 |
| or SP-390 | Spanish for Native Speakers |  |
| SP-326 | Spanish for the Professions | 3 |
| SP-331 | Spanish Civilization | 3 |
| SP-332 | Cultures of Latin America <br> or SP-333 | Hispanic Presence in US |
| SP-355 | Effective Teaching of a <br> Foreign Language | 3 |

Spanish Literature courses ${ }^{4} 12$
Total Credits
36
${ }^{1} 6$ credits maximum: These courses may be waived by oral and/or written examination.
${ }^{2}$ Students with advanced knowledge of Spanish should begin at 300-level.
${ }^{3}$ Required of all students unless exempted by the Department of World Languages.
${ }^{4} 9$ credits minimum.

Students must also complete the requirements established by the Education Department. The course of study which leads to teaching certification is in Secondary Education.

Students must also demonstrate competency in a second foreign language at the intermediate level. ("Intermediate level" means completion of 4 semesters of the same language, 101, 102, 210 and 211).

A minimum grade of C - is required for all courses in the Major in Spanish with Concentration in Spanish/ Education.

| Year One |  |  |
| :---: | :---: | :---: |
| Semester One |  | Credits |
| LASC | First-Year Seminar (FYS) (p. 50) | 3 |
| EN-101 | College Writing I | 3 |
| SP-210 | Intermediate Spanish I | 3 |
| ED-149 | Introduction to the Teaching <br> Profession Middle/ <br> Secondary School | 3 |
| LASC | LASC Elective (QR) (p. 59) | 3 |
|  | Credits | 15 |
| Semester Two |  |  |
| EN-102 | College Writing II | 3 |
| LASC | LASC Elective (CON) (p. 47) | 3 |
| SP-211 | Intermediate Spanish II | 3 |
| ED-207 | The Adolescent in Schools \& Society | 3 |
| WL | Other Language 101 Course (TLC) | 3 |
|  | Credits | 15 |


| Year Two <br> Semester Three <br> SP-321 | Advanced Spanish <br> Composition I | 3 |
| :--- | :--- | ---: |
| SP-323 <br> or SP-390 | Advanced Spanish <br> Conversation Through Film <br> or Spanish for Native <br> Speakers | 3 |
| ED-251 | Principles of Curriculum, <br> Instruction, And Assessment <br> in Middle and High School | 3 |
| LASC | Other Language 210 Course <br> (GP) | 3 |
| LASC | LASC Elective (NSP) | 3 |
|  | Credits | $\mathbf{1 6}$ |


| Semester Four |  |  |
| :--- | :--- | ---: |
| SP-331 | Spanish Civilization | 3 |
| ED-270 | Diversity \& Multicultural Ed | 3 |
| WL | Other Language 210 Course | 3 |
| LASC | LASC Elective (NSP) (p. 58) | 3 |
| SP-3xx+ | Upper Level Spanish Elective | 3 |
|  | Credits | $\mathbf{1 5}$ |

## Year Three

## Semester Five

| $\begin{aligned} & \text { SP-332 } \\ & \quad \text { or SP-333 } \end{aligned}$ | Cultures of Latin America or Hispanic Presence in US | 3 |
| :---: | :---: | :---: |
| ED-304 | Best Practices for English Language Learners | 3 |
| WL | Other language 211 Course | 3 |
| LASC | LASC Elective (QR) (p. 59) | 3 |
| LASC | LASC Elective (CA) (p. 48) | 3 |
|  | Credits | 18 |
| Semester Six |  |  |
| SP | 300/400 Literature Elective | 3 |
| SP | 300/400 Literature Elective | 3 |
| ED-351 | Exceptionalities and Accommodating Diverse Learners in Secondary Schools | 3 |
| SELECT | General Elective | 3 |
| LASC | LASC Elective (USW) (p. 60) | 3 |
|  | Credits | 15 |
| Year Four <br> Semester Seven |  |  |
|  |  |  |
| LASC/SP | 300 or 400 Level Literature Elective | 3 |
| SP-355 | Effective Teaching of a Foreign Language | 3 |
| ED-353 | Assessment, Adjustment to Practice, and Classroom Management in the Secondary School | 3 |
| ED-375 | Prepracticum: Instruction, Classroom Management, and Family and Community Engagement in the Elementary School | 3 |
| ED-383 | Prepracticum Experience in Secondary School | 1 |
| SELECT | General Elective | 3 |
|  |  | 16 |

## Semester Eight

| ED-480 | Practicum Tchg Secondary <br> Sch | 9 |
| :--- | :--- | ---: |
|  | Sem: Teaching Practicum | 3 |
| ED-424 | Credits | $\mathbf{1 2}$ |
|  | Total Credits | $\mathbf{1 2 2}$ |
|  |  |  |

Students are required to meet with their academic advisor to review their courses for the upcoming semester. A minimum of 120 credits is required for graduation. First-year and transfer students with 45 or fewer credits at the time of admission shall complete two academic programs (a major/ major or major/minor) to qualify for graduation. For more information, please view the MajorPlus (p. 65) section of this catalog.

## Spanish Minor

## Requirements for a Minor in Spanish

18 credits are required to complete the minor. A minimum of 12 credits must be earned by completing 4 of the following courses:

| Code | Title | Credits |
| :--- | :--- | ---: |
| SP-101 | Beginning Spanish I | 3 |
| SP-102 | Beginning Spanish II | 3 |
| SP-210 | Intermediate Spanish I | 3 |
| SP-211 | Intermediate Spanish II | 3 |
| SP-300 through SP-499, advanced courses (6 <br> credits minimum) | $6-18$ |  |

Total Credits
(Students with advanced knowledge of Spanish should begin at 300-level)

SP29X courses can not be applied towards the Minor in Spanish.

A minimum grade of C - is required for all courses in the Minor in Spanish.

Students who have earned a Seal of Biliteracy are granted 12 WSU credits in that language, and must take 2 courses at the 300 -level to complete their Minor.

## Spanish Minor for Health Professionals

## Minor in Spanish for Health Professionals (18 credits)

The Minor in Spanish for Health Professionals will equip students with the terminology, linguistic tools, and cultural competence needed to communicate
successfully and effectively in many health-related real-life situations and settings. To that end, the minor will focus on four main areas:

1) building the student's medical/ health vocabulary (related to topics such as the human body, at the doctor's office, diet and nutrition, medical emergencies, women's health, common illnesses and diseases, etc.),
2) developing and further practicing grammatical constructions (command forms and polite requests, numbers, question words, measurements and equivalencies with metric system, etc.),
3) increasing the student's self-confidence and effectiveness in oral communication
4) understanding the diversity within the Hispanic community, as well as its different customs, cultural practices, and approaches related to medical/ health matters.

Requirements for Spanish Minor for Health Professionals

Students must demonstrate Spanish proficiency at the 200-level or above to enroll in Spanish Health courses. Completing SP-210 and SP-211 prior to registering for Spanish Health courses is highly recommended.

A minimum grade of 70 (C-) is required for all courses in the Spanish Minor for Health Professionals.

18 credits are required to complete the Spanish for Health Professionals minor. Students may take a combination of the courses below, but a minimum of 12 credits must be earned by completing four of the following Spanish Health elective courses:

| Code <br> Spanish Health Elective Courses - Take at least 4 | Credits |  |
| :--- | :--- | ---: |
| SP-191 | Special Topics in Spanish |  |
| SP-290 | Introduction to Medical <br> Spanish I |  |
| SP-291 | Introduction to Medical <br> Spanish II |  |
| SP-292 | Spanish for Women's Health <br> SP-293 | Health and the Latino <br> Community |
| SP-294 | Spanish for the Nutrition and <br> Dietitian Professional |  |


| SP-295 | The Human Body: Spanish <br> for Anatomy |
| :---: | :--- |
| SP-401 | Advanced Study: Special <br> Topics |
| Composition/Conversation Courses |  |
| SP-210 | Intermediate Spanish I  <br> SP-211 Intermediate Spanish II <br> SP-321 <br> Advanced Spanish  <br> SP-322 Advanced Spanish <br> Composition II <br> SP-323 Advanced Spanish <br> Conversation Through Film <br> SP-326 Spanish for the Professions |

## Professors Emeriti

Helen G. Agbay, Spanish (1974)
Dr. Joshua U. Aisiku, Education (2009)
Dr. Francisco Alcala, Spanish (1996)
Dr. Susan Alix, Nursing (2019)
Dr. M. June Allard, Psychology (2005)
Francis I. Amory, Urban Studies (2009)
Dr. Eleanor Ashton, Psychology (2004)
Charles D. Avedikian, Mathematics and Computer Science (1990)

James R. Ayer, Languages and Literature (2000)
Dr. Joseph Baratta, History and Political Science (2018)

Nora M. Barraford, English (1984)
William A. Belanger, Earth Environment and Physics (2016)

Dr. Patricia Benjamin, Earth Environment and Physics (2020)

Dr. Andrea Bilics, Occupational Therapy (2015)
Dr. Elizabeth T. Binstock, Education (2002)
Dr. Richard C. Bisk, Mathematics (2015)
Dr. Lynn G. Bloomberg, Health Sciences (2016)
Dr. Edwin A. Boger, Biology (2000)
Dr. Arnold J. Bornfriend, Business Administration and Economics (2000)

Dr. Margaret P. Bouchard, Education (2016)
Dr. Peter M. Bradley, Biology (2016)
Jacqueline R. Brennan, Occupational Therapy (2017)
Betsey J. Brenneman, Library (2016)
Dr. Nancy Brewer, Health Sciences (2012)
Francis L. Brooker, Sociology (2012)

Dr. Anne M. Brown, Nursing (2002)
Dr. Donald F. Bullens, Communication (2020)
Dr. Josefina S. Bunuan, Education (1999)
Michael A. Burke, Health Sciences (1998)
Dr. Philip J. Burns, English (2013)
William Byers, Communications (2002)
Dr. Paula L. Bylaska-Davies, Nursing (2022)
Dr. Jean A. Campaniello, Psychology (2002)
Dr. Alta Carroll, Communication (2022)
Dr. Doris M. Carter, Visual and Performing Arts (1998)
Jacqueline G. Casale, Art (1991)
Dr. Jennie M. Celona, French (1996)
Louis J. Celona, Music (1992)
Dr. Harold L. Chapman, Physics (1988)
Carol Chauvin-Fortier, Biology (1993)
Dr. Yvonne Chen, Health Sciences (2001)
Dr. Caroline M. Chiccarelli, Education (2021)
Dr. Kee II Choi, Business Administration and Economics (1992)

Anna B. Cohen, Communication Disorders (1999)
Bruce C. Cohen, History and Political Science (2016)
Dr. Alan D. Cooper, Chemistry (2014)
Phyllis A. Crowley, English (1996)
Dr. Joyce Cummings, Psychology (2002)
Philip S. Dalton, History and Political Science (2000)
Aldona Daly-Boxshus, Psychology (1995)
Krishna DasGupta, Library (2011)
Dr. Paul Davis, Media Arts and Philosophy (1992)
Vincent R. DeBenedictis, Foreign Languages (1990)

Clement S. Delaney, History and Political Science (2008)

Dr. Barbara A. Desrosiers, Psychology (1998)
Daniel E. Dick, Natural and Earth Sciences (1989)
Dr. Patricia A. Donovan, Occupational Therapy (2020)
Vera M. Dowden Baldwin, Education (1974)
Dr. John R. Dowling, Education (1998)
Helen B. Duquette, Physical Education (1992)
Francis T. Dyson, Physical Education (1993)
Alfred F. Eddy, English (1990)
Dr. Guillermina Elissondo, World Languages (2016)
Robert P. Ellis, English (1995)
Dr. Anne M. Falke, Chemistry (2021)
Dr. Leonard F. Farrey, Business Administration and Economics (2002)

Dr. Arthur Ferguson, Chemistry (2006)
Dr. Robert Fink, Business Administration and Economics (2019)

Dr. James E. Foley, English (2016)
Dr. Vivian C. Fox, History and Political Science (2004)
Florence Fraumeni, Education (1985)
Dr. Linda Fuller, Communications (2000)
Dr. Ellen F. Fynan, Biology (2021)
Yvonne Gallant-Martel, French (1977)
Dr. Geoffrey J. Garrett, Physical and Earth Science (2004)

Dr. C. Kenneth Gibbs, English (2010)
Dr. Barbara A. Giguere, Nursing (2018)
James E. Girouard, Physical Education (1985)
Bernard Goldsmith, History and Political Science (1995)

Dr. Merrill H. Goldwyn, Languages and Literature (1998)

Dr. John Goodchild, Chemistry (2013)
Dr. Linda S. Gordon, Languages and Literature (2003)
Loren N. Gould, Natural and Earth Sciences (1993)
Dr. Terry E. Graham, Biology (2003)
Emmet J. Grandone, Languages and Literature (1998)
Ruth E. Greenslit, Library (1989)
Dr. Bernard J. Guarini, Psychology (2020)
Dr. Ruth Haber, English (2015)
Sandra A. Hall, Nursing (2002)
Dr. Nancy E. Harris, Education (1999)
Dr. Margaret D. Hart, Occupational Therapy (2016)
Dr. Robert J. Hartwig, Business Administration and Economics (2004)

Mary T. Hayes, Education (1974)
Bruce Henry, Mathematics and Computer Science (2001)

Mary Ellen Herx, English (1989)
Dr. Nancy Hicks, Physical and Earth Science (2005)
Dr. W. Mack Hill, Mathematics (2004)
David W. Hilton, Computer Science (1999)
Dr. Donald D. Hochstetler, Library (2012)
Paul A. Holle, Biology (1989)
Dr. Robert V. Holmes, Business Administration and Economics (2020)

Dr. John H. Hood, Visual and Performing Arts (2022)
Richard G. Hunt, Physical and Earth Science (2007)
Ronald W. Hurd, Physical and Earth Science (2004)
Dr. Renuka Jain, Business Administration and Economics (2017)

Marion J. Jennings, Education (1978)
Dr. Matthew Johnsen, Sociology (2020)
Alfred C. Johnson, Mathematics (2004)
Jean E. Johnson, English (1990)
Nancy A. Johnson, Education (1995)
Dr. Joline N. Jones-Matheson, Psychology (2006)
Dr. Donna M. Joss, Occupational Therapy (2004)
Dr. Donald L. Joyal, Business Administration and Economics (2008)

Dr. Joan K. Juralewicz, Education (2002)
Dr. Richard S. Juralewicz, Business Administration and Economics (2001)

Robert G. Kane, History (1999)
George T. Kelley, Economics (1997)
Robert F. Kelley, Physics (1988)
Dr. Baheej B. Khleif, Sociology (1994)
Dr. Richard K. Kimball, Psychology (2016)
Margaret A. Kittredge, Spanish (1995)
Sandra Kocher, Art (1992)
Dr. Ellen V. Kosmer, Visual and Performing Arts (2004)
Marshall J. Kotzen, Mathematics (2013)
Dr. Fransisco J. Lamelas, Earth Environment and Physics (2021)

Jerome L. Langer, Business Administration and Economics (1982)

Dr. Wei-Pang Lee, Business Administration and Economics (2021)

Edward H. Leonard, Physics (1984)
Robert E. Lingner, Physical and Earth Science (2005)
Dr. Mary Lou Lovering, Nursing (2000)
Dr. Augustus N. Luparelli, Business Administration and Economics (2014)

Dr. Carol E. Lysaght, Communication Disorders (1996)
Dr. Aparna Mahadev, Computer Science (2021)
Dr. Joan D. Mahoney, Business Administration and Economics (2021)

Alison K. Majeau, Library (2016)
Dr. Gordon S. Matheson, Psychology (2004)
Gary W. McEachern, Business Administration and Economics (1998)

Bernard L. McGough, Media (1994)
Robert F. McGraw, History (1991)
Pamela McKay, Library (2013)
John F. McLaughlin, Communication Disorders (1996)
Catherine McNeil, Occupational Therapy (2013)
Dr. Mary Ellen Meegan, Education (2009)
Dr. Melvin Merken, Chemistry (2010)
Michel D. Merle, Visual and Performing Arts (2005)
Dr. Susanna E. Meyer, Communication Sciences and Disorders (2021)

Frank S. Minasian, History and Political Science (2016)

Dr. A.Gibbs Mitchell, History and Political Science (1996)

John P. Mockler, Physical Education (1992)
Dennis P. Moore, Business Administration and Economics (2012)

Dr. Pearl Mosher-Ashley, Psychology (2011)
Michael E. Mulcahy, Mathematics (2005)
Dr. John M. Nash, Psychology (1993)
Dr. Christie Nigro, Visual and Performing Arts (2022)
Dr. William O'Brien, Business Administration and Economics (2019)

Dr. Virginia Ogozalek, Computer Science (2003)

Dr. Juan Orbe, Spanish (2014)
Dr. Chad C. Osborne, Education (2002)
Dr. Ruth Ostenson, Psychology (2002)
Francis J. OConnor, Spanish (1980)
Dr. Patrick OConnor, Education (2016)
Richard A. OConnor, Psychology (1994)
Paul F. ONeil, Education (1997)
Dr. Surindar Paracer, Biology (2013)
Dr. Hemant Pendharkar, Computer Science (2019)
Dr. Robert F. Perry, Geography (1987)
Dr. Robert J. Perry, Mathematics (2008)
Vincent Piccolo, Media Arts (1988)
Dr. Frank C. Pizziferri, Sociology (1995)
Dr. Maryann C. Power, Communication Sciences and Disorders (2011)

Dr. Maureen E. Power, Urban Studies (2016)
Dr. Vincent E. Powers, Urban Studies (2000)
Catherine I. Quint, Education (1985)
Dr. David Quist, Education (2003)
Dr. Donald A. Read, Health Sciences (2001)
Dr. Robert Redding, Mathematics (2004)
Dr. Josna Rege, English (2022)
Dr. Susan V. Rezen, Communication Sciences and Disorders (2008)

Gerald Robbins, Philosophy (2007)
Dr. Jeffrey L. Roberts, Languages and Literature (2001)

Dr. Thomas L. Roberts, Biology (1988)
Evelyn Robinson, Mathematics (1978)
Dr. Helen M. Rogers, Nursing (2006)

Bruce D. Russell, Biology (2003)
Dr. Robert Sahagian, Visual and Performing Arts (2020)

Dr. Najib E. Saliba, History and Political Science (2021)

Dion Schaff, Philosophy (1993)
Dr. Courtney Schlosser, Philosophy (2013)
Helena Semerjian, Health Sciences (2016)
Robert L. Shafner, Business Administration and Economics (2010)

William E. Shakalis, Library (2021)
Dr. Maureen D. Shamgochian, Biology (2016)
Dr. Daniel C. Shartin, Philosophy (2018)
Helen G. Shaughnessy, Education (1986)
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Dr. Katherine M. Shea, Foreign Languages (1991)
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Dr. Maureen C. Stefanini, Business Administration and Economics (2016)

William L. Sullivan, English (1983)
Dr. Sudha R. Swaminathan, Earth Environment and Physics (2021)

James J. Swanson, Business Administration and Economics (2015)

Dr. Antonieto S. Tan, Biology (2018)
Dr. Elaine G. Tateronis, Dean School of Education
Health and Natural Sciences (2012)
G. Flint Taylor, Psychology (1985)

Robert W. Thompson, Physical and Earth Science (2005)

Anthony W. Thurston, Biology (1983)
Dr. Roger L. Towne, Communication Sciences and Disorders (2022)

Dr. Donald F. Traub, Philosophy (1998)
F. Stephen Trimby, Business Administration and Economics (2004)

David J. Twiss, History and Political Science (2015)
Richard S. Tyrell, English (1994)
Dr. Andrea J. Wallen, Nursing (2011)
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LLoyd P. Wheaton, Chemistry (2002)
Dr. James R. Wicka, Communication Sciences and Disorders (2006)

Dr. Catherine Wilcox-Titus, Visual and Performing Arts (2022)

Dr. Audrey E. Wright, Education (2016)
Dr. Sharon Yang, English (2019)
Dr. Gary G. Young, Business Administration and
Economics (2002)
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Maria I. Gariepy, Executive Director, Affirmative Action and Equal Opportunity (2019) B.S., San Martin University; M.B.A., Fitchburg State University

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Carl A. Herrin, Assistant to the President/Chief of Staff, President's Office (2012) B.A., Georgetown University

Nicole D. Kapurch, Assistant Director, President's Office (2012) B.A., Worcester State College

Stacey A. Luster, General Counsel and Assistant to the President, President's Office (2015) B.A., St. John's University; J.D., Boston University

Barry M. Maloney, President of the University, President's Office (2011) B.S., M.A., University of Maine, Orono

Tenere Taylor, Staff Assistant, Affirmative Action and Equal Opportunity (2022) B.S., Bay Path University

## Academic Affairs

Anthony K. Adade, Associate Vice President \& Chief Information Officer, Information Technology Services (2013) B.S., Northeastern University; M.S., Ph.D., Lesley University

Rosemary L. Ahmadi, Staff Associate, Information Technology Services (2014) B.A., Worcester State College; M.A., Clark University

Paul Aldonis, Staff Assistant, Information Technology Services (2023) A.S., Quinsigamond Community College

Vida Ampofo, Staff Assistant, Academic Success Center (2022) B.S., Worcester State University; M.S., Southern New Hampshire University

Matthew M. Bejune, Executive Director, Library (2013) B.A., University of Massachusetts Amherst; M.S., Syracuse University

Laxmi Bissoondial, Director, Multicultural Affairs (2012) B.S., Worcester State College; M.Ed., C.A.G.S., University of Massachusetts Amherst

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Kenton Brister, Staff Associate, Information Technology Services (2014) A.S., Quinsigamond Community College

Jorge E. Brown, Associate Librarian, Library (2016) B.A., Concordia University; M.L.S., Emporia State University

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Andrew Calcutt, Staff Associate, Information Technology Services (2006)

Midaly Carrasquillo, Assistant Director, Urban Action Institute (2021) M.A., Worcester State University

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Simon Coude, Staff Associate, Earth, Environment and Physics (2022) B.S., Université de Sherbrooke; Ph.D., Université de Montréal

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A.S., Quinsigamond Community College; A.D.N., Mt. Wachusett Community College; B.S., M.S., Worcester State University

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Ross M. Griffiths, Librarian, Library (2016) B.A., Temple University; M.S.,University of Pittsburgh; M.L.I.S., Illinois State University

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Sciences and Disorders (2021) B.A., Simmons
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Center for Crafts (2019) B.A., M.A., Rhode Island College

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Jessica O'Connor, Staff Associate, Occupational Therapy (2018) B.S., University of New Hampshire

Thomas P. O'Malley, Assistant Director, Worcester Center for Crafts (2009) B.F.A., Alfred University; M.F.A., Rhode Island School of Design

Kathleen Orengo, Staff Assistant, Latino Education Institute (2001) B.S., Worcester State College

Kiara Ortiz, Staff Assistant, International Programs (2023) B.S., Fitchburg State University

Deirdre Palmer, Staff Assistant, Nursing (2015) B.S.W., Marist College; B.S.N., Mass College of Pharmacy

Katey C. Palumbo, Director, International Programs (2010) B.S., University of Miami; M.Ed., Fitchburg State University

Russ Pottle III, Dean, School of Humanities and Social Sciences (2017) B.A., M.A., Southeastern Louisiana University; Ph.D., Louisiana State University

Jorge J. Poueriet Rolffot, Staff Associate, Information Technology Services (2004) B.A., Universidad Dominicana O\&M

Shu Qian, Librarian, Library (2016) B.S., M.S., Shanghai University; M.S., Florida State University

Jack J. Reardon, Associate Director, Information Technology Services (2003) B.S., Bridgewater State College

Kenneth A. Smith, Director, Institutional Research (2006) B.A., Southeastern Louisiana University; M.B.A., University of Mississippi

Robert Soderman, Staff Associate, Information Technology Services (2000) A.S., Quinsigamond Community College

Sarah L. Strout, Assistant Vice President, Assessment and Planning (2017) B.A., Assumption College; M.A., Ph.D., Clark University

Tammy L. Tebo, Assistant Dean, Academic Success Center (2013) B.A., Westfield State College; M.Ed., Springfield College

Henry C. Theriault, Associate Vice President, Academic Affairs (2008) B.A., Princeton University; Ph.D., University of Massachusetts

Maria Isabel Urbina, Staff Assistant, Assessment and Planning (2019) B.S., Andrew University; M.S., Boston University

Amber Vaill, Associate Dean, Academic Affairs (2021) B.A., Bay Path University; Ed.M., Westfield State University; Ed.M., Framingham State University; Ph.D., Northcentral University

Ann T. Veneziano-Korzec, Director, Speech Language Hearing Center (1988) B.A., Boston College; M.S., Syracuse University

Karen Wigren, Staff Assistant, School of Science, Technology \& Health (2018)

Lois A. Wims, Provost/Vice President, Academic Affairs (2015) B.S., Bryant College; M.S., Salve Regina; Ph.D., University of Rhode Island

Amanda Wittman, Director, Binienda Center for Civic Engagement (2023) B.A., Clark University; M.S., Oregon State University; Ph.D., University of Edinburgh

## Administration and Finance

David J. Ayotte, Director, Employee Services (2020) B.S., University of New Hampshire, Durham

John Capuano, Assistant Director, Facilities (2021)
Julie C. Carmel, Director, Office of the Bursar (1992) A.B., Becker Junior College

Boris Collins, Staff Associate, Administration and Finance (2022) B.F.A., Wichita State University; M.S., Lesley University

Jennifer L. Collins, Associate Director, Employee Services (2021) B.A., M.A., Framingham State University

Jesilka Cortez Curran, Executive Director, Accounts Payable \& Procurement (2022) B.A., College of Our Lady of the Elms; M.S., M.B.A., Nichols College

Robert P. Daniels, Director, Facilities (2004) A.S., Quinsigamond Community College

Kathleen M. Eichelroth, Chief Financial Officer \& Vice President, Administration and Finance (1998) B.A., University of Massachusetts Dartmouth; CPA, Massachusetts

Peter M. Fenuccio, Director, Facilities (2004)
Eric W. Hansen, Director, Facilities (2012) B.S., Western New England College

Edward M. Horniak, Staff Associate, Facilities (2010)
Anisa Hoxha, Director, Administration and Finance
(2012) B.S., Nichols College; M.S., Worcester State University

Suze Jean-Charles, Assistant Director, Employee Services (2014) B.A., M.A., Clark University

Kayla Klemba, Associate Director, Office of the Bursar (2012) B.A., Worcester State University

Heather M. Lamarche, Assistant Director, Administration and Finance (2014) B.S., Worcester State University

Lucinda M. Lambert-Hutchinson, Staff Associate, Facilities (2021) B.S., Elmira College

Sathi Mitra, Assistant Vice President / CHRO, Employee Services (2023) B.A., M.A., Osmania University; M.S., Rochester Institute of Technology

Kristyn Neale, Staff Assistant, Office of the Bursar (2018) B.S., Framingham State University

Gabrielle M. Noe, Staff Assistant, Employee Services (2021)

Sandra K. Olson, Assistant Vice President, Facilities (2003) B.S., Worcester Polytechnic Institute; M.B.A., Clark University

Michelle Price, Staff Assistant, Employee Services (2021)

Robin J. Quill, Associate Vice President, Administration and Finance (2003) B.S., Worcester State College

Nancy M. Ramsdell, Director, Facilities (2005)

Alison Rice, Assistant Director, Accounts Payable \& Procurement (2023) B.S., Becker College

Matthew B. Richardson, Assistant Director, Facilities (2015) B.S., University of Rhode Island

Meredith M. Rosario, Staff Associate, Employee Services (2017) A.S., Quinsigamond Community College

Melissa A. Staiti, Staff Assistant, Administration and Finance (2005) A.A., Becker College; B.A., Worcester State College

Jonathan Walker, Director, Administration and Finance (2018) B.A., Worcester State University

## Council of Presidents

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## Enrollment Management

Amy Belina, Associate Director, Financial Aid (2023) B.A., Westfield State University; M.S., Bay Path College

Tiana D. Carrasquillo, Associate Director, Admissions (2013) B.A., University of Connecticut, Storrs; M.Ed., University of Massachusetts Amherst

Julie A. Chaffee, Registrar, Registrar (1994) B.A., St. Anselm College

Rebecca Cross, Assistant Director, Communications and Marketing (2021) B.A., Newbold College; M.A., University of Sussex

Tania S. Delehanty, Assistant Director, Communications and Marketing (2019) B.A., Gustavus Adolphus College

Joseph J. DiCarlo, Dean, Admissions (2012) B.A., Assumption College; M.A., Framingham State University

Kirshner Donis, Associate Director, Admissions (2003) B.A., Clark University; M.S., Worcester State College

Christopher J. Dooley, Assistant Director, Admissions (2005) B.S., Becker College

Ryan G. Forsythe, Vice President, Enrollment Management (2014) B.S., Westfield State University; M.Ed. University of Massachusetts Amherst; Ed.D., Trevecca Nazarene University

Alex Gariepy, Assistant Director, Admissions (2021) B.A., Worcester State University

Jeremy Greenhouse, Director, Financial Aid (2021)
B.A., Ithaca College; Ed.M., Northeastern University

Thomas Kelley, Director, Retention (2014) B.A., Westfield State University; M.S., University of Rhode Island

Mark A. LaCroix, Director, Publications and Printing Services (2008) A.S., Quinsigamond Community College

Mary Leufstedt, Staff Associate, Communications and Marketing (2022) B.S., Fitchburg State University

Kelly Lin, Director, Communications and Marketing (2021) B.A., Mount Holyoke College; M.Phil., M.A., Columbia University

Lisa McCormack, Staff Assistant, Publications and Printing Services (2021) B.F.A., Massachusetts College of Art and Design

Benjamin T. McElroy, Assistant Director, Admissions
(2000) B.A., Worcester State College

Gloria E.F. McElroy, Assistant Director, Admissions
(2021) B.A., Birmingham-Southern College; M.A., Florida State University

Deborah O'Neil, Director, Communications and Marketing (2022) B.A., University of South Florida; M.A., Florida International University

Kimberly A. Oikle, Staff Assistant, Financial Aid (2008) B.S., Worcester State College

Kathleen Rogan, Director, Enrollment Management (2018) B.A., University of Rhode Island

Laila Shaikh, Staff Assistant, Financial Aid (2023)
B.A., M.Ed., Elms College

Maureen O. Stokes, Assistant Vice President, Communications and Marketing (2018) B.A., University of Southern California; M.A., Seton Hall University

Maribeth Wrobel, Associate Registrar, Registrar (2003) B.S., M.S., Worcester State College

## Student Affairs

Mariel Aleman, Staff Associate, Career Services (2022) B.A., College of the Holy Cross; M.S., University of Rhode Island

Lucia Alfaro, Staff Associate, Counseling Services (2022) B.A., M.A., Assumption College

Melisa Alves, Director, Career Services (2022) B.A., College of the Holy Cross; Ed.M., Springfield College; Ph.D., University of Massachusetts Boston

Jason F. Anderson, Staff Assistant, Athletics (2019) B.S., University of Florida; M.S., Bridgewater State University

Dirk Baker, Staff Assistant, Athletics (2000) B.A., Ed.M., Ed.D., Boston University

Dean D. Bowen, Assistant Director, Athletics (2016)
B.S., M.S., The College at Brockport, SUNY

Kelly K. Downs, Staff Assistant, Athletics (2012) B.A., Bridgewater State University; M.A., Endicott College

Kathleen Edwards, Staff Assistant, Residence Life and Housing (2022)

Montana A. Epps, Assistant Director, Residence Life and Housing (2023) B.A., University of California; M.S., California Polytechnic State University

Kevin J. Fenlon, Associate Director, Counseling Services (2008) B.A., M.A., Assumption College

Adrian C. Gage, Assistant Dean, Residence Life and Housing (2005) B.S., Oklahoma State University; M.Ed., Clemson University

Stephanie M. Giguere, Staff Assistant, Student Accessibility Services (2019) B.A., Assumption College; M.Ed., Fitchburg State University

Julie A. Glovin, Assistant Director, Counseling Services (2016) B.A., Tulane University; M.S.W., Boston University

Andrew Goins, Staff Associate, Counseling Services (2022) B.A., Montclair State University; M.A., Roger Williams University

Rachel Graddy, Associate Director, Student Accessibility Services (2023) B.A., University of Puget Sound; Ph.D., Washington University

Akim Green, Staff Assistant, Residence Life and Housing (2022)

Bridget P. Joiner, Staff Associate, Student Affairs (2012)

Michelle Kaelin, Associate Director, Career Services (2022) B.A., College of the Holy Cross; M.Ed., Tufts University

Jason M. Kapurch, Chief/Director, University Police (1991) B.S., Worcester State University

Joshua L. Katz, Associate Director, Office of Student Conduct (2006) B.A., Worcester State University

Julie A. Kazarian, Dean/Vice President, Student Affairs (2000) B.A., M.S., Worcester State College

David A. Lindberg, Assistant Director, Athletics (1994)
B.S., Worcester State University

Kevin M. MacLennan, Staff Assistant, Athletics
(2003) B.A., Westfield State College

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William J. Marrier, Assistant Director, University Police (2006) A.S., Quinsigamond Community College

Linzy Martinez, Assistant Director, Student
Involvement and Leadership Development (2019)
B.A., M.S., Central Connecticut State University

Kristie M. McNamara, Director, Student Involvement and Leadership Development (2001) B.A.,
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Jessica Meany, Staff Associate, Athletics (2002) B.A., M.Ed., Worcester State College

John W. Meany, Associate Director, Athletics (2004)
B.A., Middlebury College

Michael A. Mudd, Director, Athletics (2014) B.A., St. Lawrence University; M.S., Miami University

Laura A. Murphy, Associate Dean, Counseling Services (1989) B.A., M.A., C.A.G.S., Assumption College

Kristen A. Nelson, Director, Residence Life and Housing (2009) B.A., Keene State College; M.S., C.W. Post-Long Island

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## University Advancement

Ursula Arello, Director, Advancement Services (2022) B.A., St. Lawrence University; M.B.A., Anna Maria College

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## Directions to Campus

## By Auto

From Massachusetts Turnpike (1-90):
Take Exit 10 (Auburn) to Rt. 290 East. (see from 290
East)
From Rt. 495:
Take Exit 25 to Rt. 290 West. (see from 290 West)
From Rt. 9 West:
Follow Rt. 9 West into Worcester. (see from Highland Street)

## From Rt. 146 North:

Take Rt. 146 North to Rt. 290 East. (see from 290
East)
From Rt. 190 South:
Take Rt. 290 West. (see from 290 West)
From Rt. 290 West:
Take Exit 18 (Rt. 9 West); turn right off exit ramp and stay in center lane, following directions for Rt. 9 West. Turn right onto Rt. 9 West, also known as Highland Street. (see from Highland Street)

## From Rt. 290 East:

Take Exit 17 (Rt. 9 West); turn left onto Rt. 9 West which will turn into Highland Street at the bottom of the hill. Proceed up the hill onto Highland Street. (see from Highland Street)

## From Highland Street:

While on Highland Street, stay in the right lane. Stay on Highland Street for 1.5 miles. (You'll pass Elm Park and Doherty High School on the left.) At the rotary, take the third right onto June Street. At the second light, turn right onto May Street. The main entrance to the University will be three blocks ahead on the left.

For more information on public transportation, airport and carpooling, visit http://www.worcester.edu/ directions

## For GPS Purposes - Main Campus:

486 Chandler Street, Worcester, MA 01602

## Discipline Information

University Switchboard: 508-929-8000
Web Site: http://www.worcester.edu

| Discipline | Location | Sponsoring Department | Phone | Fax |
| :---: | :---: | :---: | :---: | :---: |
| Art | Learning Resource Center (LRC325) | Visual Performing Arts | 508-929-8145 | 508-929-8166 |
| Biology | Science \& Tech Bldg (ST 310) | Biology | 508-929-8569 | 508-929-8148 |
| Biotechnology | Science \& Tech BIdg (ST 310) | Biology | 508-929-8569 | 508-929-8148 |
| Business Administration | Sullivan Academic Center (S203) | Business Administration and Economics | 508-929-8091 | 508-929-8048 |
| Chemistry | Science \& Tech Bldg (ST410) | Chemistry | 508-929-8583 | 508-929-8171 |
| Communication | Learning Resource Center (L332B) | Communication | 508-929-8829 | 508-929-8170 |
| Communication Sciences \& Disorders | Science \& Tech Bldg (ST115L) | Communication Sciences \& Disorders | 508-929-8055 | 508-929-8175 |
| Computer Science | Science \& Tech Bldg (ST110) | Computer Science | 508-929-8832 | 508-929-8156 |
| Criminal Justice | Learning Resource Center (L120) | Criminal Justice | 508-929-8417 | 508-929-8426 |
| Economics | Sullivan Academic Center (S203) | Business Administration and Economics | 508-929-8091 | 508-929-8048 |
| Education | Sullivan Academic <br> Center (S226, S227, <br> S218) | Education | 508-929-8671 | 508-929-8164 |
| English | Sullivan Academic Center (S303) | English | 508-929-8154 | 508-929-8174 |
| Environmental Science | Science \& Tech Bldg (ST410) | Earth, Environment \& Physics | 508-929-8583 | 508-929-8171 |
| French | Sullivan Academic Center (S303) | World Languages | 508-929-8154 | 508-929-8174 |
| Geography | Science \& Tech Bldg (ST410) | Earth, Environment \& Physics | 508-929-8583 | 508-929-8171 |
| Health | Science \& Tech Bldg (ST110Q) | Health Science | 508-929-8832 | 508-929-8176 |
| History | Sullivan Academic Center (S327) | History \& Political Science | 508-929-8162 | 508-929-8155 |
| Liberal Studies | Learning Resources Center (L305A) | Liberal Studies (p. 166) | 508-929-8692 |  |
| Mathematics | Sullivan Academic Center (S145) | Mathematics | 508-929-8912 | 508-929-8197 |
| Music | Learning Resource Center (LRC325) | Visual Performing Arts | 508-929-8145 | 508-929-8166 |
| Nursing | Science \& Tech Bldg (ST222) | Nursing | 508-929-8129 | 508-929-8168 |
| Occupational Therapy | Science \& Tech Bldg (ST210B) | Occupational Therapy | 508-929-8624 | 508-929-8178 |


| Philosophy | Sullivan Academic Center (S316) | Philosophy | 508-929-8406 | 508-929-8105 |
| :---: | :---: | :---: | :---: | :---: |
| Physics | Science \& Tech Bldg (ST410) | Earth, Environment \& Physics | 508-929-8583 | 508-929-8171 |
| Political Science | Sullivan Academic Center (S327) | History \& Political Science | 508-929-8162 | 508-929-8155 |
| Psychology | Sullivan Academic Center (S241) | Psychology | 508-929-8159 | 508-929-8172 |
| Sociology | Sullivan Academic Center (S218) | Sociology | 508-929-8408 | 508-929-8177 |
| Spanish | Sullivan Academic Center (S303) | World Languages | 508-929-8154 | 508-929-8174 |
| Theatre | Learning Resource Center (LCR Suite 325) | Visual Performing Arts | 508-929-8145 | 508-929-8166 |
| Urban Studies | Sullivan Academic Center (S129) | Urban Studies | 508-929-8940 | 508-929-8144 |
| Visual/Perform Arts | Learning Resource Center (L132B) | Visual Performing Arts | 508-929-8145 | 508-929-8166 |
| World Languages | Sullivan Academic Center (S303) | World Languages | 508-929-8154 | 508-929-8174 |

## Faculty A-Z

## A

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[^0]:    ${ }^{1}$ Based on highest Evidenced-based Reading and Writing (EBRW) and Math (M) Score.

[^1]:    M.Ed. in Secondary School Education

[^2]:    ${ }^{1}$ May also be any MA course above 200.

[^3]:    NU-432 Advanced Nursing Perspectives in Chronic Illness (Track II)
    LASC Categories: DAC, DIV
    The focus of this course is on the study and practice of nursing directed at health promotion/ prevention/restoration of clients with chronic person/ environment disunity. The format is a hybrid course.
    Fall only and every year. 3 Credits

[^4]:    TH-271 History of American Entertainment II
    LASC Categories: CA, USW
    An historical survey of American popular entertainments from the rise of film and radio through the great American musicals. Every year. 3 Credits

[^5]:    EN-304 Witchcraft in Medieval and Renaissance Literature
    LASC Categories: TLC
    Prerequisites: EN-102
    This course explores how Medieval and Renaissance literature on witchcraft addressed contemporary concerns.
    Every 2-3 years. 3 Credits

[^6]:    TH-271 History of American Entertainment II
    LASC Categories: CA, USW
    An historical survey of American popular entertainments from the rise of film and radio through the great American musicals. Every year. 3 Credits

