USING THIS BULLETIN

Introduction
The Undergraduate Bulletin is Penn State’s comprehensive source for undergraduate academic information and program requirements.

Use this section and navigation tools throughout the site to become familiar with general Bulletin information and discover new ways to explore academic opportunities across Pennsylvania and the world.

Students should follow the edition of the Bulletin that is active on their first day of class at the University. Past versions can be found on the Archive (http://bulletins.psu.edu/undergraduate/archive) page.

New Features
Program Page Layout
- Consistent layout of program information organized within the following tabs:
  - Overview
  - How to Get In
  - Program Requirements (University Degree, Bachelor of Arts Degree, General Education, and Major requirements)
  - Integrated Undergrad-Grad Program
  - Learning Outcomes
  - Academic Advising
  - Suggested Academic Plan
  - Career Paths
  - Contact

Begin and End Campus
At the top each program page, you will find a box that indicates where you can begin and end a program. Programs may have different begin and end campuses, so it is important to use this information to determine program availability at each campus.

How to Get In
This section describes requirements on how to enter your major. Common examples include, but are not limited to, minimum GPA and/or successful completion of a skills test, coursework, or preparation programs.

Suggested Academic Plan
The course series provided in the Suggested Academic Plan provides only one of many possible ways to move through the curriculum.

To create a personalized academic plan, begin by taking the following steps:

- Consult with a Penn State academic adviser on a regular basis to develop and refine your academic plan.
- Use the Suggested Academic Plan in conjunction with your degree audit (accessible in LionPATH as either an Academic Requirements or What If report).
- Familiarize yourself with information available in this Bulletin to learn about academic opportunities.
- Explore resources available on your college and campus websites.

Please note that the University may make changes in policies, procedures, educational offerings, and requirements.

Changes Page
- Real-time amendments to information in the Bulletin will be tracked on the Changes (p. 6) page.
- Currently or previously enrolled students should consult the Bulletin Archive (http://bulletins.psu.edu/undergraduate/archive), their adviser, and degree audit reports for specific requirements.

Course Bubble
When a course link is clicked, a course bubble will appear with important course information including, but not limited to:

- course title, description, and credits;
- prerequisites;
- course attributes and General Education learning objectives;
- if the course is repeatable;
- if the course is cross-listed;
- if the course can be counted towards General Education requirements.

Statement of Nondiscrimination
The University is committed to equal access to programs, facilities, admission, and employment for all persons. It is the policy of the University to maintain an environment free of harassment and free of discrimination against any person because of age, race, color, ancestry, national origin, religion, creed, service in the uniformed services (as defined in state and federal law), veteran status, sex, sexual orientation, marital or family status, pregnancy, pregnancy-related conditions, physical or mental disability, gender, perceived gender, gender identity, genetic information, or political ideas. Discriminatory conduct and harassment, as well as sexual misconduct and relationship violence, violates the dignity of individuals, impedes the realization of the University’s educational mission, and will not be tolerated. Direct all inquiries regarding the nondiscrimination policy to the Affirmative Action Office, The Pennsylvania State University, 328 Boucke Building, University Park, PA 16802-5901; Email: kfl2@psu.edu; Tel 814-863-0471.

Penn State encourages qualified persons with disabilities to participate in its programs and activities. If you anticipate needing any type of accommodation or have questions about the physical access provided, please contact the Office for Disability Services, 814-863-1807, in advance of your participation or visit.

Start Exploring
The Undergraduate Bulletin is Penn State’s comprehensive source for undergraduate academic information and program requirements. Using the search features, explore options to design your own, unique academic path at one of the world’s leading research institutions. Discover new opportunities as you pursue your academic passion. Search boxes are located on the Undergraduate Bulletin landing page and throughout the website.

Narrow your search by using the following fields:

Degree Type
Choose the degree type to begin your search. Information on the following degrees are included in the Undergraduate Bulletin:

**Associate Degree**
Two-year majors that, with few exceptions, provide concentrated instruction to prepare graduates for specialized occupational assignments.
Baccalaureate Degree
Baccalaureate programs of study consist of no less than 120 credits and typically take four years to complete.

Minor
An academic program of at least 18 credits that supplements a major. A minor program may consist of course work in a single area or from several disciplines.

Undergraduate Certificate
Undergraduate certificates can reflect emerging academic areas, necessary professional development requirements, or groups of courses that do not constitute a degree program.

Learn more in the Definitions and Abbreviations (p. 2) section.

Campus
Penn State has over 20 campuses across Pennsylvania. Visit the Campus (http://bulletins.psu.edu/undergraduate/campuses) page to see the full listing and a brief description of each campus.

Interest
Search broad topics to discover programs associated with your interests. From helping people, to science, or business, select an area to help narrow down your academic choices.

College
Academic colleges at Penn State grant degrees and are generally organized around a subject matter. All Penn State majors are divided among academic colleges, which are the units from which students receive their degrees. Visit the College (http://bulletins.psu.edu/undergraduate/colleges) page to see the full listing.

Academic Authority
The University Faculty Senate has responsibility for, and authority over, all academic information contained in the Undergraduate Bulletin.

Each step of the educational process, from admission through graduation, requires continual review and approval by University officials. The University, therefore, reserves the right to change the requirements and regulations contained in this Bulletin and to determine whether a student has satisfactorily met its requirements for admission or graduation, and to reject any applicant for any reason the University determines to be material to the applicant’s qualifications to pursue higher education.

MORE INFORMATION ABOUT ACADEMIC AUTHORITY (http://undergrad.psu.edu/aappm/P-8-program-descriptions-catalog.html)

Definitions and Abbreviations
Described below are definitions referring to degrees, majors, options, minors, concurrent or sequential majors programs, and integrated undergraduate-graduate degree programs:

Associate Degree
Two-year majors that, with few exceptions, provide concentrated instruction to prepare graduates for specialized occupational assignments.

Baccalaureate Degree
Penn State offers more than 160 majors with four-year baccalaureate degrees. A baccalaureate program of study shall consist of no less than 120 credits. Students may elect to take courses beyond the minimum requirements of a degree program. Particular types of baccalaureate degrees identify educational programs having common objectives and requirements. Degree programs may provide academic, pre-professional, or professional experiences and preparation. Majors lead to a baccalaureate degree. Each student must select a major within a baccalaureate degree type. If options are offered within a major, a student selects one. The student may also elect to enroll in a minor to supplement the major. Alternatively, the student may seek to enroll in multiple majors within the same type of baccalaureate degree or to enroll in a simultaneous degree program.

Undergraduate majors offered at Penn State lead to one or more of the following baccalaureate degrees: Bachelor of Arts, Bachelor of Science, Bachelor of Architectural Engineering (five-year program), Bachelor of Architecture (five-year program), Bachelor of Design, Bachelor of Fine Arts, Bachelor of Humanities, Bachelor of Landscape Architecture (five-year program), Bachelor of Music, Bachelor of Musical Arts, and Bachelor of Philosophy.

Not all degrees are offered at every location. Baccalaureate degrees offered at Penn State include both those that are designed to provide an academic (including pre-professional) experience and those that are specifically designed to provide professional preparation.

To ensure excellence, all professionally oriented degree majors provide a strong academic base. The Bachelor of Arts degree (with a given major) is an academic degree; the Bachelor of Science degree (with a given major) and the bachelor’s degree in any subject area (e.g., Bachelor of Architecture) are professional degrees. The Bachelor of Philosophy degree, described in the Intercollege Undergraduate Programs section of this Bulletin, is planned individually and may be designed to serve either academic or professional purposes.

Major
A major is a plan of study in a field of concentration within a type of baccalaureate degree. Colleges and other degree-granting units may have common requirements for all of their majors. Each major may have requirements identified in prescribed, additional, and supporting courses and related areas categories. Elective credits are not considered part of the major.

MORE INFORMATION ABOUT MAJORS (http://senate.psu.edu/curriculum/guide-to-curricular-procedures/baccalaureate-degree-curriculum)

Option
An option is a specialization within a major that should involve at least one-third of the course work credits required for the major, but need not be more than 18 credits. All options within a major must have in common at least one-fourth of the required course work credits in the major. A student can only be enrolled in an option within their own major.

Minor
A minor is defined as an academic program of at least 18 credits that supplements a major. A minor program may consist of course work in a single area or from several disciplines, with at least 6 but ordinarily not more than half of the credits at the 400-course level. Total requirements are to be specified and generally limited to 18 to 21 credits. Entrance to some minors may require the completion of a number of prerequisites, including courses, portfolios, auditions, or other forms of documentation.
that are not included in the total requirements for the minor. All courses for a minor require a grade of C or above.

**Concurrent and Sequential Majors Programs**

At the baccalaureate or associate degree level, students may be approved for admission to more than one major under the Concurrent Majors Program. A Concurrent Majors Program is one in which students take courses to concurrently meet the requirements of at least two majors, with graduation for all majors in the program occurring during the same semester. Concurrent majors must all be at the baccalaureate or associate degree level. Under the Sequential Majors Program, upon graduation from an associate or baccalaureate degree program, a student may apply for re-enrollment in another undergraduate degree program.

**Integrated Undergraduate-Graduate (IUG) Degree Program**

An Integrated Undergraduate-Graduate (IUG) degree program combines a Penn State baccalaureate degree with a master’s degree as a continuous program of study. An IUG program allows qualifying students to:

- create a cohesive plan for baccalaureate and master’s degree studies, with advising informed by requirements for both degree programs;
- complete the combined degree program in less time than it would take to complete each program separately;
- become familiar with the expectations of graduate studies in their programs;
- access the resources of the Graduate School;
- learn from current graduate students who share academic interests.

**Abbreviations, Acronyms, and Codes**

Described below are common codes, abbreviations, acronyms, and other types of academic shorthand used at Penn State, along with a brief explanation of each.

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<td>Audit, attended regularly (grade reporting symbol)</td>
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<td>AUDN</td>
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<td>AUU</td>
<td>Audit, did not attend regularly (grade reporting symbol)</td>
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<td>B</td>
<td>Special topics (course suffix; indicates different versions of the same course, e.g., CAS 100A, CAS 100B, CAS 100C)</td>
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<td>BA</td>
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<td>Special topics (course suffix; indicates different versions of the same course, e.g., CAS 100A, CAS 100B, CAS 100C)</td>
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<td>CC</td>
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<td>CCP</td>
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<td>CCR</td>
<td>College Contact and Referral Representative</td>
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<td>CCGP</td>
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<td>CIC</td>
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<td>CM</td>
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<td>CNCR</td>
<td>Course is scheduled concurrently with another course (course characteristic)</td>
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<td>CNTL</td>
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<td>COMM</td>
<td>Communications (college abbreviation)</td>
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<td>CORD</td>
<td>Course is coordinated with other course(s) (course characteristic)</td>
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<td>D</td>
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<td>Dean/Director of Academic Affairs</td>
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<td>Description</td>
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<td>E</td>
<td>Special topics (course suffix; indicates different versions of the same course, e.g., HIST 297D, HIST 297E)</td>
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<td>ECoS</td>
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<td>EVEX</td>
<td>Course has evening exams (course characteristic)</td>
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<td>F</td>
<td>Special topics (course suffix; indicates different versions of the same course, e.g., HIST 297F, HIST 297G)</td>
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<td>FINL</td>
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<td>FL</td>
<td>Failure under pass/fail option (grade reporting symbol)</td>
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<td>FYS</td>
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<td>GWS</td>
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<td>Honors course or section (course suffix)</td>
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<td>H H D</td>
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<td>I</td>
<td>Incomplete (grade reporting symbol)</td>
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<td>I</td>
<td>Special topics (course suffix; indicates different versions of the same course, e.g., HIST 297I, HIST 297K)</td>
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<td>INCP</td>
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<td>INTG</td>
<td>Course is integrated with other courses (course characteristic)</td>
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<td>IS</td>
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<td>Undergraduate (level code)</td>
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<tr>
<td>UG ND</td>
<td>Undergraduate non-degree (college code)</td>
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<tr>
<td>UN</td>
<td>Undergraduate non-degree or degree-seeking provisional (college code)</td>
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<tr>
<td>UN</td>
<td>Unsatisfactory achievement (grade reporting symbol)</td>
</tr>
<tr>
<td>UP</td>
<td>University Park (campus code)</td>
</tr>
<tr>
<td>UPUA</td>
<td>University Park Undergraduate Association</td>
</tr>
<tr>
<td>US</td>
<td>United States Cultures (General Education code)</td>
</tr>
<tr>
<td>W</td>
<td>Official withdrawal (grade reporting symbol)</td>
</tr>
<tr>
<td>W</td>
<td>Writing Across the Curriculum (course suffix)</td>
</tr>
<tr>
<td>WB</td>
<td>Wilkes-Barre (campus code)</td>
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<tr>
<td>WC</td>
<td>World Campus</td>
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<tr>
<td>WEB</td>
<td>Web course; offered entirely through the Internet (course characteristic)</td>
</tr>
<tr>
<td>WEP</td>
<td>Women in Engineering Program</td>
</tr>
<tr>
<td>WF</td>
<td>Withdrew failing (grade reporting symbol)</td>
</tr>
<tr>
<td>WISE</td>
<td>Women in the Sciences and Engineering</td>
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Changes to the UG Bulletin

Changes to the Undergraduate Bulletin will be tracked in real-time and listed below. At the end of every semester, these updates will be incorporated into the Bulletin.

New Course Abbreviations

- ATHTR: Athletic Training (http://bulletins.psu.edu/university-course-descriptions/undergraduate/athtr)
- FDSYS: Food Systems (http://bulletins.psu.edu/university-course-descriptions/undergraduate/fdsys)

Courses Added: Effective Summer 2018

- ARTH 107N / GEOSC 107N: Rocks, Minerals, and the History of Art
- ARTH 115N / ENGL 115N: Arts of Love
- ASIA 106N: Asian Traditions of Health, Medicine, and the Body
- ARTH 292N: Witches and Witchcraft from the Middle Ages to the Present
- BIOL 125N: Society and Disease Management
- BIOL 145N: The Visual Body
- BIOL 160N / KINES 160N: Fitness with Exercise Physiology
- CAS 220: Persuasion
- CMLIT 183Q / BIOL 183Q: From Beast Books to Resurrecting Dinosaurs
- CSD 431: Neuroanatomical and Neuropsychological Foundations of Communication Disabilities
- CYBER 100: Computer Systems Literacy
- ECON 474: Experimental and Behavioral Economics
- ENGL 141N / INART 141N / AFAM 141N: African American Read-In Engaged Learning Experience
- ENGL 162N: Communicating Care
- ENGL 190Q / INART 203Q: Medievalism
- ENGL 236N: Inequality: Economics, Philosophy, Literature
- GAME 180N: The Art and Science of Virtual Worlds
- GEOG 2N: Apocalyptic Geographies: How can we prevent the end of the world?
- HDFS 254N: Reading Our Lives: Understanding Diversity and Human Development through Memoirs
- HIST 114N: Historical Perspectives on HealthCare Innovations
- HPA 295: Field Experience
- HPA 495: Field Experience
- IT 240Q / CMLIT 240Q / HIST 240Q / WMNST 240Q: Artistic Patronage in Europe
- KINES 419: Disability Sport and Recreation
- PHIL 136N: Art and Philosophy in Ancient Greece
- PHOTO 321N: Flow Visualization: The Art and Physics of Fluid Motion
- PSYCH 175N / COMM 175N: Mental Illness and the Movies
- PT 271W: Pathophysiology I
- RM 214: Applications of Probability Theory to Actuarial Science
- SC 103N: When Data Meets Design
- SRA 268: Visual Analytics
- SUST 150N: The Science of Sustainable Development

Courses Added: Effective Fall 2018

- ANTH 176: Sex and Gender: A biosocial and comparative perspective
- CAS 303H: Introduction to Communication Theory- Honors
- CI 460: The Creative Child
- CMLIT 112N: Introduction to Global Drama, Theatre, and Performance
- CMLIT 440: War Stories: The Literature of War
- CMPEN 462: Wireless Communications Systems and Security
- COMM 222N: Social Justice and the Image
- COMM 328: Effects of Science, Environmental and Health Media
- COMM 361: Entrepreneurial Journalism
- COMM 362: Podcasting
- COMM 364: Data Visualization for Journalists
- ERM 448: Rural Road Ecology and Maintenance
- HDFS 448: Death and Bereavement
- HIST 130H: Introduction to the Civil War Era, 1848-1877 Honors
- MGMT 365: Social Entrepreneurship
- MGMT 427W: Managing an Entrepreneurial Start-up
- MGMT 480: Business Transformation Consulting
- MGMT 485: Entrepreneurial Opportunity Creation
- MGMT 486: Entrepreneurial Investment and Resource Acquisition
- NUTR 175: Healthy Food for All: Factors that Influence What we Eat in the US
- PHIL 15: How to Live
- PSYCH 466: The Psychology of Evil
- SRA 311W: Risk Analysis in a Security Context
Courses DROPPED: Effective Summer 2018
- CSA 297: Special Topics
- CSA 397B: Special Topics
- CSA 497H: Special Topics

Course Changes: Effective Fall 2018

ANTH 2: Introduction to Archaeology (3 Credits) (BA) (GS)
Old Listing Effective Through Fall 2018:

Survey of basic approaches used by archaeologists to interpret basic prehistoric human cultural patterns. ANTH 002 Introduction to Archaeology (3) (GS)(BA) This course meets the Bachelor of Arts degree requirement. Introduction to Archaeology is designed to introduce the basic theories, methods, and data archaeologists use to study ancient peoples, past cultures, and their natural environments. A problem-oriented approach to learning about archaeology combines two one-hour lectures with a one-hour, hands-on lab session each week. The theories and methods introduced in lectures are applied to archaeological data in the computer lab in order to answer questions about life in the past. Hands-on involvement is emphasized through the use of state-of-the-art computers, archaeological software, and (where possible) the handling of archaeological collections. Grades for this course are based on two to three exams and the lab exercises. The course may vary from this standard on other campuses depending upon the availability of computer labs and archaeological collections. However, the weekly lab exercises are available to all campuses from the Department of Anthropology. Students on all campuses will be expected to interact with each other and with the instructor in weekly discussions and exercises. They engage in data gathering, synthesis, and analysis, using exercises that make use of information on the internet as well as data provided by PSU archaeologists. The exercises emphasize human cultural diversity over time and space. There is also an emphasis on the ethics of archaeological research and the ways in which scientific choices and ethical choices interact in professional archaeology. The logical and ethical principles learned are applicable to a broad range of problems that students are likely to encounter in anthropology, in other disciplines, and later in their lives. This course is one of three core courses required of majors in the Anthropology department and it is also required for the minor. ANTH 002 serves as a stepping stone to more advanced and specialized courses in anthropology. This course can be used to fulfill three credits of General Education in the Social/Behavioral Sciences for the Bachelor of Arts requirement.

Changes Effective Fall 2018:
- Number to 2N
- Add General Education Designation GH
- Add General Education Designation Inter-Domain
- Long Title
- Abbreviated Title
- Description

ANTH 45: Cultural Anthropology (3 Credits) (US) (IL) (BA) (GS)
Old Listing Effective Through Fall 2018:

Beginnings of human culture; economic life, society, government, religion, and art among traditional peoples. ANTH 045 Cultural Anthropology (3) (GS;US;IL)(BA) This course meets the Bachelor of Arts degree requirements. "Cultural Anthropology" is designed to introduce the student to the cultural diversity of our planet. "Culture" can be defined as that set of rules, standards, conventions, and beliefs shared by members of a given human society. These rules are transmitted by social learning. Culture defines what counts as "normal" thought and behavior by the members of a given society. The course will provide the student with an understanding of the basic methods, data and, theories that cultural anthropologists use to study the varieties of human thought, behavior, and social life in their associated physical and social environments. These projects involve individual and group research based upon library and computer-based resources and further foster interactive learning. Teamwork is an essential aspect of both research and presentation. Oral presentations and written papers are stressed. Grades are based on three examinations. This class is one of three core courses required of majors and minors in the Department of Anthropology. The course can be used to fulfill three credits of General Education in the Social/Behavioral Sciences for the Bachelor of Arts requirement. Students can expect to acquire a general introduction to the University as an open community of researchers and scholars who attempt to describe accurately, and hence understand, "The Human Condition." Students in this class will therefore have the opportunity to explore their responsibilities as members of such an intellectual community of free inquiry. In addition, students will develop first-hand knowledge of the learning tools and resources available to them at Penn State including the ever-expanding Web-based Internet. This course offers the student the opportunity to develop intellectual relationships with faculty and fellow classmates who share similar academic interests in cultural anthropology and related fields of inquiry. "Cultural Anthropology" is offered every semester, including the summer session.

Changes Effective Fall 2018:
- Number to 45N
- Add General Education Designation GH
- Add General Education Designation Inter-Domain
- Long Title
- Abbreviated Title
- Description

ANTH 216: Sex and Evolution (3 Credits) (GN) (GS)
Old Listing Effective Through Fall 2018:

Introduction to evolutionary theory and its application to understanding human sexuality and sex differences. ANTH 216 Sex and Evolution (3) (GN;GS) This course introduces students to evolutionary theory and explores its relevance to the anthropological study of human sexuality. After honing their evolutionary skills by investigating non-human reproduction, students will apply evolutionary principles to understanding human sexuality. Why do we prefer certain characteristics in a mate? How do these preferences differ between and within the sexes, and why? How do mating behaviors vary across cultures, and why are some more culturally variable than others? Other topics covered include sexual conflict and rape, and parental care and abuse. In understanding the evolutionary basis for a trait, it is helpful to understand its development. Thus, this course also covers the basics of sexual differentiation and investigates how variation in these processes might lead to variation in sexual orientation and gender identity. Students should take away not only a better understanding of human sexuality but also a way of thinking that helps them understand all living things.

Changes Effective Fall 2018:
Changes Effective Fall 2018:

- Number to 106N
- Add General Education Designation Inter-Domain
- Description

**BIOL 120A: Plants, Places, and People (3 Credits) (GN) (US) (IL) (BA)**

Old Listing Effective Through Fall 2018:

Useful and dangerous plants; historical (archaeological), cultural (ethnological), and economic (anthropocentric) aspects, including structural and chemical characteristics of botanical importance. Students who have passed BIOL (PPATH;ST S) 424 may not schedule this course.

Changes Effective Fall 2018:

- Number to 120N
- Description
- Abbreviated Title
- Add General Education Designations GH and Inter-Domain

**CAS 222: Foundations: Civic and Community Engagement (3 Credits) (US) (IL) (GS)**

Old Listing Effective Through Fall 2018:

Conceptual foundations of public scholarship and orientation to contemporary themes and issues in civic and community engagement.

Cross-Listed Courses: AYFCE 211 CIVCM 211

Changes Effective Fall 2018:

- Number to 222N
- Cross-listings to AYFCE 211N and CIVCM 211N
- Description
- Add General Education Designations GH and Inter-Domain

**CHEM 423: Chemical Spectroscopy (4 Credits) (WF)**

Old Listing Effective Through Fall 2018:

Modern methods and instruments of spectroscopy and their applications to problems of chemical structure and analysis. Topics include electronics, optics, and atomic and molecular spectroscopy (UV-VIS, Fluorescence, FTIR, Raman, liquid- and solid-state NMR). The course thoroughly integrates lecture and laboratory activities. The laboratory component incorporates skill-building exercises with open-ended guided-inquiry laboratory exercises and a semester-long laboratory- and literature-based research project. Students work in small groups (2-3 students) to complete each assignment. Students are required to write research papers during the semester. The reports are linked to the core course topics and the fifth is associated with the semester-long research project. All reports require students to search for and read the relevant published literature. The course is designed to be rigorous and comprehensive in scope. The writing component for this course includes: maintaining a proper laboratory notebook; reports; and an oral poster presentation. All writing elements are reviewed and graded by the instructor and teaching assistants.

Changes Effective Fall 2018:

- Number to 423W
- Prerequisite/Corequisite/Concurrent Courses

**CHEM 425: Chromatography and Electrochemistry (4 Credits) (WF)**

Old Listing Effective Through Fall 2018:

Gas, liquid, and other forms of chromatography; important techniques of electrochemistry.

Changes Effective Fall 2018:

- Number to 425W

**CHEM 431: Organic and Inorganic Preparations (4 Credits) (WF)**

Old Listing Effective Through Fall 2018:

Preparation, purification, and characterization of both organic and inorganic compounds by modern methods. CHEM 431W CHEM 431W Organic and Inorganic Preparations (3) CHEM 431W is a one-semester, writing-intensive advanced laboratory course that focuses on the preparation, isolation, purification, and characterization of organic, organometallic, and inorganic compounds. Students are expected to use the techniques learned in the introductory organic chemistry laboratory and will learn more advanced techniques such as the use of air-free and anhydrous reaction conditions, glove bags, vacuum manifolds, vacuum distillations, flash chromatography, solvent stills, and gas-tight syringes. Molecular modeling techniques are also introduced. Students are given hands-on access to instrumentation for the characterization of synthetic products or organic unknowns using standard analysis methods such as IR, NMR, UV/V is spectroscopy, mass spectrometry, polarimetry, HPLC, GC and GC-MS. Students are expected to search the chemical literature using databases and online journals and to write formal lab reports in ACS style. The lab assignments include syntheses, separating an unknown mixture, and a team project, which includes a written proposal, synthetic work, a final report, and a poster presentation.

Changes Effective Fall 2018:

- Number to 431W

**CHEM 459: Advanced Experimental Physical Chemistry (4 Credits) (WF)**

Old Listing Effective Through Fall 2018:

Laboratory experiments and projects for students interested in advanced study in physical chemistry. CHEM 459W Advanced Experimental Physical Chemistry (4) CHEM 459W Advanced Experimental Physical Chemistry is a project-based course designed as a follow-up to CHEM 457. CHEM 459W provides students with further experience in laboratory techniques used for quantitative experimentation and with the processing and interpretation of quantitative data. Experiments and short research projects are designed to complement the theoretical knowledge acquired in lecture courses so as to enhance students’ competence in problem solving in a research environment. Particular attention will be devoted to written communication of experimental results in an effective and concise manner according to American Chemical Society journal standards.

Changes Effective Fall 2018:

- Number to 459W
EMSC 240: Energy and Sustainability in Contemporary Culture (3 Credits: Maximum of 3 Credits) (BA)
Old Listing Effective Through Fall 2018:

Critical evaluation of selected media (e.g., books, film) in contemporary culture on topics related to energy and sustainability. Course guides students through an engaging exploration and critical evaluation of selected media (e.g., books, film) in contemporary culture on topics related to energy and sustainability. Three selections are used each term, typically two books and one film. Students consider the subject matter in light of humanistic values, where the science, ideas and history presented in the selected media are critically evaluated relative to the viability of our planet's ability to support life. Opening lessons cover the foundational science of energy and sustainability, with a global perspective and consideration of the human dimension. The science is presented without technical jargon or advanced mathematics, to promote a genuine and sound understanding of these essential concepts for college-level students of all academic backgrounds. Learning units are devoted to each media selection, with all content, activities and assessments within the unit contributing to this concentrated focus. Activities and assessments engage students in qualitative and quantitative methods, which may include small group discussions, journaling, surveys, interviews, polling, research, presentation of ideas and opinions, and other peer-to-peer interactions. After completing this course, students will possess the foundational science knowledge necessary to evaluate contemporary topics related to energy and sustainability, from the perspective of universal humanity on a planet of finite resources. – be prepared to develop observations, questions and opinions on topics related to energy and sustainability and to self-express them, in both written and oral presentations, to others with different backgrounds and points of view – be skilled critical readers of energy and sustainability subject matter, knowing how to raise (and answer) questions related to scientific clarity and soundness and how to test assumptions and scope of arguments, especially as related to inclusion of humanistic values and planetary limits – be willing and able to avoid entrenched ideology-based positions on issues related to energy and sustainability and to develop, instead, a personal position based in science and data with a humanistic perspective – know of credible resources and organizations for ongoing research related to energy and sustainability – be prepared to participate in public dialogue on some of the most challenging and complicated issues of our time, including activities such as letters to the editor, online commenting, political engagement, and public advocacy.

Changes Effective Fall 2018:

- Number to 240N
- Description
- Add General Education Designations GH and Inter-Domain

GLIS 101: Globalization (3 Credits) (GS) (IL) (BA)
Old Listing Effective Through Fall 2018:

This course provides a broad introduction to the topic of global studies. GLIS 101 Globalization (3) (GS;IL) (BA) This course meets the Bachelor of Arts degree requirements. This interdisciplinary course explores how people and nations confront the phenomenon of globalization, presenting different perspectives for studying and making sense of the world. Students are exposed to a variety of analytical approaches from the arts, humanities and social sciences to allow them to see how different perspectives portray the world, interpret events, and often shape human actions. The course begins from a humanities perspective, exploring the concept of social identity, in particular understanding how people in different cultures develop a sense of their identity and how this is perpetuated over time through a society's products, practices, and perspectives (e.g. artifacts, value systems, traditions). The focus then shifts to organizations in society, comparing how they operate with either national or global identities. This leads to an exploration of how information and communication technologies are tools to create both global connectivity, yet can also be a source of division. Globalization is then considered in terms of its impact on the natural environment, populations, and health. Challenges arising in each of these areas are the concern of all global citizens, and are explored in terms of how interdependencies are increasing their impact. The focus of the course progresses to gender, poverty, and human rights, exploring these in tandem with their literary representations, presented in both global and comparative contexts. Economic development models are also used to uncover trends in gender and poverty. The final focus is on global peace and conflict, highlighting how globalization, in bringing people and nations closer together, can also give rise to conflict and division. This course is one of two 100-level courses that are required for the GLIS major. While this course focuses on a general introduction to global studies as a field of study, GLIS 102 complements the topics raised here, exploring many from a range of different perspectives to prepare students for choosing their options through the major.

Changes Effective Fall 2018:

- Number to 101N
- Description
- Add General Education Designations GH and Inter-Domain

GLIS 102: Global Pathways (3 Credits) (GH) (IL)
Old Listing Effective Through Fall 2018:

Five pathways to thinking globally: Health & Environment, Culture & Identity, Human Rights, Wealth & Inequality, and Global Conflict. GLIS 102 Global Pathways (3) (GH;IL) (BA) This course meets the Bachelor of Arts degree requirements. This course introduces students to five pathways to thinking about global issues today. Global Conflict, Health & Environment, Culture & Identity, Wealth & Inequality, and Human Rights. We will spend three weeks focusing on each problem. Students will complete the course with a stronger sense of many of the major global issues of our time, as well as a sense of how these issues can be approached and studied from a variety of humanistic and social scientific perspectives. Students will also learn how aspects of identity, like race, sexuality, or gender, affect and are affected by global forces. Combined with GLIS 101, this course will help prepare students for lives and careers in which they will interact with these large-scale global issues on a daily basis; it will allow students to understand how various local or national issues are affected by global ones, and to see ways of intervening in the world to address global problems. Global Conflict. Why do people fight? Is violence inherent to human society? How is it possible to dream of an end to war, as creative writers of many cultures have done? Health & Environment. How does climate affect human history? How have societies and individuals interacted with their environments, and how have the relations between human beings and the natural world been represented in literature and the arts? How are health issues depicted in narratives and other media, and how do health crises challenge political or cultural norms? Culture & Identity. How do we come to be who we are? How are we shaped by the circumstances we grow up in? What is culture, and how do we “read” cultures other than our own? What happens when people move or change cultures, or when cultures
move or change people? Wealth & Inequality. Why are some nations, and some people, rich, and others poor? What structural factors help explain those differences? How does the distribution of wealth factor into what counts as a good society? Human Rights. What are the most fundamental properties of being human? What kinds of responsibilities have societies imagined that they have to their citizens and non-citizens? Does everyone in a society have the same rights? If rights are everywhere violated and ignored, does that mean they cannot, or should not, exist?

Changes Effective Fall 2018:

- Number to 102N
- Description
- Add General Education Designations GS and Inter-Domain

HORT 150: Plants in the Human Context (3 credits) (GN)
Old Listing Effective Through Fall 2018:

An introduction to the many fascinating and vital relationships between plants and human society. HORT 150 Plants and Human Context (3) (GN) The objective of this course is to expose students to the pervasiveness and essentiality of plants in the human experience. Major topics include 1) human civilization as influenced by plants, 2) a history of food from plants, 3) chemicals from plants, 4) non-food plant uses, 5) current issues in plant production, and 6) current botanical issues of global concern. Specific topics range from botanical pharmaceuticals to global warming/use of biofuels, and from culture-specific rotten foods to genetically-modified plants. Students will be exposed to many basic concepts of plant ecology, ecosystem science, emerging technologies, and the criteria used to evaluate sources of scientific information as a natural consequence of studying the range of topics included in the course. Students completing the course will therefore be in an excellent position to intelligently select from the many botanically- and ecologically-oriented majors, minors and options available to them at Penn State. The format of the course consists primarily of lecture/discussions, and includes one team assignment (making a poster) and three individual projects (one page arguments) in addition to a midterm and a final exam. Student evaluations are based on individual exam scores (50%) and on team (20%) and individual (30%) projects.

Changes Effective Fall 2018:

- Number to 150N
- Description
- Add General Education designation GS
- Add General Education designation Inter-Domain

JAPNS 121: Japanese Film and New Media (3 Credits) (GH) (IL) (BA)
Old Listing Effective Through Fall 2018:

Survey of Japanese film and new media in the twentieth century and beyond, with attention to changing cultural settings. Taught in English. JAPNS 121 Japanese Film and New Media (3) (GH; IL) (BA) This course meets the Bachelor of Arts degree requirements. This course is intended to provide an introduction to modern and cutting-edge forms of cultural production in Japan from the twentieth century to the present day. Prior study of Japan is not required and materials will be available in English. Students will learn about major technologies and forms of media, including film, manga, anime, and various forms of “new media” (cellphone novels, blogs, MMOGs, IM, and Web 2.0 for instance). Readings and screenings will cover several artistic modes including formalism, historiography, documentary, period drama, and experimental works. The course, or individual units within the course, will be structured so that students develop an historical perspective, allowing them to understand the cultural contexts that have inspired the creative works under study. By examining Japanese film and new media with attention to changing cultural settings, students will investigate such topics as the relation between social institutions and the individual, the formation and expression of identity, changing gender roles and family structures, the impact of technological and economic trends on social structure, and changing climates of censorship and freedom of expression. In addition, students will learn to think critically about various media’s techniques and aesthetics of representation, and will become more engaged, critical spectators of film and related media. Class work includes some lecture but emphasizes guided discussions, group work, writing exercises, and some student presentations. This participatory approach is intended to deepen students’ appreciation of the works, to help them understand value systems that may differ from those predominant in western cultures, and to assist students in developing both analytical and expressive abilities. Through critical reading, group discussion and interpretive writing, students will hone skills for evaluating modes of cultural production and consumption in modern Japan. The course is designed to be suitable for all students generally interested in Japan, or interested in various fields of humanistic study, whether or not they have previously studied the culture of Japan. This course is required of the Japanese major. It is designed to count as General Education, as a B.A. “Other Cultures” course, and as an IL “International Cultures” course.

Changes Effective Fall 2018:

- Number to 121N
- Description
- Add General Education Designations GA and Inter-Domain

MATH 34: The Mathematics of Money (3 Credits) (GQ)
Old Listing Effective Through Fall 2018:

Simple interest, simple discount, compound interest, annuities, investments, retirement plans, taxes, credit cards, and mortgages. MATH 034 The Mathematics of Money (3) (GQ) This course is intended to be one of several offered by the mathematics department with the goal of helping students from non-technical majors partially satisfy their general education quantification. It is designed to provide a sound introduction to the uses of college level mathematics in personal finance applications. Topics include: simple interest, simple discount, compound interest, annuities, investments, retirement plans, taxes, credit cards, and mortgages.

Prerequisite: one unit of algebra or MATH 004

Changes Effective Fall 2018:

- Description
- Prerequisite/Corequisite/Concurrent Courses

WMNST 105: Living in a Diverse World (3 Credits) (GH) (GS) (US) (BA)
Old Listing Effective Through Fall 2018:

This course uses literature, film and scholarly texts to inspire students to explore how conceptions of social difference, such as those linked to categories of gender, race, sexuality, class, ethnicity, and disability, shape society and everyday interactions historically and today. The course takes an intersectional perspective to explore how and why these categories vary over time and space, the effects of such variations for individuals and communities, and the connections between identity.
and the exercise of power. Geographically, the course emphasizes the relationship between social difference and power in the U.S. history and society, but takes a transnational perspective when possible by making comparisons to contexts beyond the United States. Furthermore, the class examines how individuals and communities most directly marginalized by these processes contest and re-imagine dominant categories and assumptions. Materials and discussions in the class trace broad social and historical trends as well as dive into the facets of everyday life. The class is designed to encourage reflection on the ethical challenges that arise when we become aware of how privilege, power and difference are intertwined in our world and daily lives.

Changes Effective Fall 2018:

- Number to 105N
- Description
- Add B.A. Humanities Designation

WMNST 106U: Representing Women and Gender in Literature, Art and Popular Cultures (3 Credits) (H) (US) (IL) (BA) (GH)

Old Listing Effective Through Fall 2018:

Interdisciplinary consideration of primary works and scholarship pertaining to women in the humanities and the arts.

Changes Effective Fall 2018:

- Number to 106Q
- Description
- Add General Education Designations GA and Inter-Domain

Course Changes: Effective Spring 2019

ASIA 3: Introduction to the Religions of the East (3 Credits) (US) (IL) (GH)

Old Listing Effective Through Spring 2019:

Religious experience, thought, patterns of worship, morals, and institutions in relation to culture in Eastern religions. RL ST (ASIA) 003 Introduction to the Religions of the East (3) (GH;US;IL)(BA) This course meets the Bachelor of Arts degree requirements. This course will explore the foundations, development, and diversity of religious traditions in Asia, focusing mostly on Hinduism, Buddhism, Confucianism, Daoism, and Shinto. It is organized according to two sections: Foundations and Developments. The Foundations section provides an introduction to the worldviews and practices of Eastern teachings. We will also discuss the structure of society, the social expectations on individuals based on gender and class, and rituals, which expose us to rich mythologies or intricate ceremonies. The second section, Developments, traces the evolution of religious doctrine and practice through history. Here, we learn to distinguish among large and small-scale movements and schools, and to familiarize ourselves with the geographical scope of each religion in South, Southeast, and East Asia. An abiding emphasis in this course will be on how to read and interpret the varied scriptures and primary texts of these religions.

Cross-Listed Courses: RLST 3

Changes Effective Spring 2019:

- Description
- Remove US Cultures Designation

ASIA 103: Introduction to Hinduism (3 Credits) (GH) (US) (IL) (BA)

Old Listing Effective Through Spring 2019:

Historical development of Hinduism to the present. RL ST (ASIA) 103 Introduction to Hinduism (3) (GH;US;IL)(BA) This course meets the Bachelor of Arts degree requirements. This course provides a historical overview of the development of ideas that provide the foundation of the south Asian religious culture. The course begins with a discussion of the Vedic ritual tradition, tracing the emergence of the idea of civic responsibility or Dharma. It then proceeds to analyze how the Vedic ritual tradition may have given rise to the philosophical concepts like that of Karma or (individual action and its underlying motives), Samsara (the cyclical view of life), and the Atman (nature of the individual) during the Upanishadic/Vedantic era. The first half of the course concludes with selected readings from the Bhagavadgita, and the Mahabharata. The readings will all be in English. Class discussions focus on how the classical Hindu worldview may have emerged from the philosophical foundation of the Upanishads, and later built the groundwork for the Hindu devotional Bhakti tradition. The second half of the course focuses on the various regional or little traditions from the middle ages analyzing how the local religious cultures (both in the Hindi and non-Hindi speaking areas) may have played out against the great classical Brahmanic tradition. The course concludes with a discussion of how Hinduism has been historically influenced by other religious cultures (both indigenous and foreign) like Buddhism, Jainism, Islam, and Christianity.

Cross-Listed Courses: RLST 103

Changes Effective Spring 2019:

- Description
- Remove US Cultures Designation

ASIA 104: Introduction to Buddhism (3 Credits) (GH) (US) (IL) (BA)

Old Listing Effective Through Spring 2019:

A general survey of the basic doctrine, practice, and historical development of Hinayana and Mahayana Buddhism. RL ST (ASIA) 104 Introduction to Buddhism (3) (GH;US;IL)(BA) This course meets the Bachelor of Arts degree requirements. This course is a general survey of the historical development, basic doctrines, and practices of Hinayana, Mahayana, and Vajrayana Buddhism. The course is structured around the “Three Jewels” of Buddhism: Buddha, Dharma, and Sangha. That is to say, we will learn about the Buddha as a historical figure and spirit; we will come to understand the basic elements of his doctrinal teachings; and we will examine the community of followers who have practiced his teachings. Special attention will be paid to the various “geographies” of Buddhism as expressed through different cultures in ancient India, Southeast Asia, and East Asia. At the conclusion of the course, we will encounter Buddhism as a relatively new cultural force in America. The course revolves around the discussion of key issues in the philosophy, ethics, and theology of various forms of Buddhism.

Cross-Listed Courses: RLST 104

Changes Effective Spring 2019:

- Description
- Remove US Cultures Designation

ASIA 181: Introduction to the Religions of China and Japan (3 Credits) (IL) (BA)

Old Listing Effective Through Spring 2019:
A survey of the history, philosophy, and cultural impact of the major Far Eastern religions: Confucianism, Taoism, Buddhism, and Shinto. ASIA (RL ST) 181 Introduction to the Religions of China and Japan (3)(IL) (BA) This course meets the Bachelor of Arts degree requirements. This is an introductory survey of the historical, philosophical, and cultural dimensions of the major religious traditions in China and Japan. The course delineates and highlights the organic view of the universe and the hierarchical ordering of society in East Asia. It traces the evolution of the major traditions—Confucianism, Daoism, Buddhism in China, as well as Shinto, Buddhism and Confucianism in Japan—by examining their ideas of humanity and nature, morality and society, and metaphysics and ethics. It also reveals the interaction and interrelation between ideology, politics and society, and their impact on the development of the major religious traditions in history. A major focus is the relation between the “little tradition”—the popular and folk practices and beliefs of esoteric Daoism, devotional Buddhism, and fertility-cult Shinto—and the “great tradition”—the elite and literate doctrines and precepts of Confucianism, philosophical Daoism, and monastic Buddhism. The course also devotes some attention to the influence of religion on various facets of culture, such as medicine, science, literature, art and food.

Cross-Listed Courses: RLST 181

Changes Effective Spring 2019:

- Description
- Add B.A. Humanities

ASIA 200: What Are Asian Languages? (3 Credits) (GH) (IL) (BA)
Old Listing Effective Through Spring 2019:

Introduction to the interrelated notions of language, interaction, and culture centering on regions and languages covered in Asian Studies. ASIA 200 What Are Asian Languages? (3) (GH;IL)(BA) This course meets the Bachelor of Arts degree requirements. The purpose of the course is to introduce the interrelated concepts of language, interaction, communication, and culture. The focus is on Asian languages (Korean, Japanese, Chinese, Persian, Hindi, Punjabi, and Urdu) spanning the regions addressed by the Department of Asian Studies. Students explore which concepts in language and culture are universal (e.g., basic reference, time, space) and which are language-culture specific. The course examines what constitutes human language and how human language differs from other forms of communication, e.g., animal communication, artificial languages, and computer-related languages. At issue is the concept of meaning, gradations of meaning, nuances of meaning, literal meaning, implied and inferred meaning, and so forth. The course provides an overview of the essential branches of linguistics (phonetics, phonology, morphology, semantics, syntax, and pragmatics) initially using English examples to illustrate these areas of linguistic focus. English is also used to illustrate the classical notions of parts of speech. The course provides an overview of the geographic regions in which each of the seven languages are spoken, as well as an overview of writing systems, the notions of standard languages, official languages, government oversight of language purity, and dialects. The course examines pragmatics— including basic theories of politeness. This is a 200-level course and is open to any Asian Studies major or minor interested in learning about the language-culture interface as it applies to languages offered in Asian Studies (plus Persian). Students of any proficiency level of any of the target languages are welcome, from absolute beginners to heritage and/or native speakers.

Changes Effective Spring 2019:

- Description

CHNS 424: Confucius and the Great Books of Early China (3 Credits)
Old Listing Effective Through Spring 2019:

This course familiarizes students with the critical texts and intellectual cultures of Warring States and early imperial China. ASIA 482 (HIST
Changes Effective Spring 2019:

Honors Committee

Prerequisite: ENGL 015 or ENGL 030; approval of the departmental Honors Committee.

Reading, group discussions, and oral and written reports on various specific authors and literary works.

Prerequisite: ENGL 015 or ENGL 030; approval of the departmental Honors Committee.

Changes Effective Spring 2019:

ENGL 303: Honors Seminar in English: American Literature & Culture (3-12 Credits: Maximum of 12 Credits) (H) (WF) (BA)

Old Listing Effective Through Spring 2019:

Reading, group discussions, and oral and written reports on various specific authors and literary works.

Prerequisite: ENGL 015 or ENGL 030; approval of the departmental Honors Committee.

Changes Effective Spring 2019:

ENGL 411: Honors Seminar in English: Creative Writing (3-12 Credits: Maximum of 12 Credits) (H) (WF) (BA)

Old Listing Effective Through Spring 2019:

Advanced Seminars in Creative Writing focus on a particular genre and/or topic. Genres include poetry, fiction, graphic novel, memoir, creative non-fiction, essay, or drama. Topics vary. Students work as apprentice writers, reading the work of published and expert authors, experimenting within the genre, engaging in structured peer review and group workshops, and preparing texts for publication and contest submission. In a typical three-hour class, a third of the course may be devoted to critical assessment of assigned readings and two-thirds to workshop critique. Students discuss a number of issues relevant to the practice of creative writing and the production of literature, such as innovation and circulation, and numerous techniques, including the establishment of voice, creation of character plot development, pacing, and principles of prosody. Students may also consider the responsibilities of literary citizenship and the ethics of artistic representation. The courses offer an intense investigation of creative writing craft. Students develop skills in close, critical reading through the examination of exemplary works of contemporary literature and craft analysis, often reading an entire book per week. They also learn to read analytically and practically in workshop critiques of peer writing. In workshop discussion, students engage in a range of critical and editing tasks from close reading to broad conceptualization; they develop the ability to communicate ideas clearly and extemporaneously, and to negotiate meaning with others. Students experiment with and hone various writing techniques by executing focused exercises and drafting and developing pieces for final submission. They apply critical and analytical reading skills to revise and strengthen their own writing. The final project may include drafts and polished versions of two to three stories or essays, and up to a dozen poems. Students are graded for regular participation, reading of and engagement with assigned texts, generating new creative works, revising drafts, incorporating peer review and professor critiques into revisions, revising and editing, preparing works for publication and contest submission, critical responses to peer writing, and overall improvement of their craft during the course of the semester.

Prerequisite: (ENGL 15 or ENGL 30) OR (ENGL 137 or ENGL 138)

Changes Effective Spring 2019:
JAPNS 120: Japanese Literature in Its Cultural Context (3 Credits)
(GH) (IL) (BA)
Old Listing Effective Through Spring 2019:

Japanese literature and film from classical through contemporary times, with attention to changing cultural settings. Taught in English. JAPNS 120 Japanese Literature in Its Cultural Context (3) (GH;IL)(BA) This course meets the Bachelor of Arts degree requirements. This course is intended to provide an introduction to the literature of Japan from the seventh century to the postmodern era. Prior study of Japan is not required and materials will be available in English. Students will learn about major eras of Japanese literature and culture, such as the age of the Man'yoshu, the age of the Genji monogatari (The Tale of Genji), the age of No and Kyogen, the age of Wit and Learning, the age of Meiji, the age of industrialization, the postwar years, and postmodernity. The readings will include several genres, such as poetry, folktales, short story, and novel, with an emphasis on prose fiction. The course is structured so that students develop a historical/cultural perspective in order to understand the contexts that have inspired the literary works. By examining literature in its cultural contexts, students will investigate such topics as the relation between social institutions and the individual, the traditional patriarchal system, the changing roles of women, westernization, the Emperor system, and postmodern consumer culture, among others. Students will read literature and related materials from different periods, with occasional presentations of films. Class work includes some lecture but emphasizes guided discussions, group discussions, and students’ presentations. This participatory approach is intended to deepen students’ appreciation of the texts, to help them understand value systems that may differ from, or else be shared with, those predominant in modern Western cultures, and to assist students in developing both analytical and expressive abilities. Evaluation will be through means such as in-class presentations, two midterms, one analytic paper (3-7 pages), and in-class participation and discussion. The course is designed to be suitable for all students generally interested in Japan, or interested in various fields of humanistic study, whether or not they have previously studied the culture of Japan. This course is required for the Japanese major. It is designed to count as General Education and as a B.A. “Other Cultures” course. It will be taught once a year with an enrollment of 40-50. This course will be taught in the active-learning mode, featuring both lecture and discussion, including oral presentations, which provides students abundant opportunity for expressing their opinions. Web-based activities may also be included, depending on the instructor. Specifically: Writing, speaking, self-expression: Students will write reaction papers and comprehensive essays (e.g., take-home essay exams), which require the analysis and comparison of various literary works. Opportunity for information gathering, synthesis and analysis in solving problems; A wide range of texts–synchronous and diachronic terms of time and space–will be comparatively analyzed. Students will use the library as well as electronic resources to research texts and authors for their oral presentations and essays. Application of intercultural/international competence: Students will explore a wide range of texts in Japanese literature and cultures. Students will compare/contrast texts based on cultural and social contexts.

Changes Effective Spring 2019:

• Abbreviation to ATHTR
• Description

KINES 135: Introduction to Athletic Training (3 Credits)
Old Listing Effective Through Spring 2019:

Foundation of injury recognition and prevention; ethical, legal, and professional issues for the athletic trainer. A laboratory based course. KINES 135 Introduction to Athletic Training (3) Introduction to Athletic Training provides an overview of the field of athletic training exploring the breadth of athletic training terminology, issues, and injuries. After completing the course, the students will be able to describe the roles of the sports medicine team, understand the legal considerations for the athletic trainer as a health care provider, and identify the basics of physical conditioning and nutrition in reference to injury prevention. Students will be able to describe an emergency action plan for injuries, lightning safety, and provide a basic plan for dehydration and fluid replacement. Students will be able to identify basic use of therapeutic modalities and principles of therapeutic exercise programs. Students will gain an understanding of acute vs. chronic injury conditions and be able to describe the related anatomy, etiologies, pathologies, signs and symptoms, and general treatment and management for injuries of the foot, ankle, lower leg, knee, hip/groin, shoulder, elbow, wrist, hand, cervical spine, and head. A weekly taping laboratory is included and students are provided rationale and demonstrations for specific taping techniques for a variety of injuries. Students are also provided an overview of general medical conditions that may occur in the athletic arena. Students are evaluated through three (3) exams, six (6) quizzes, performance in taping lab and practical exam, development of a medical condition fact sheet and class presentation of the medical condition, in-class assignments, class participation, and class attendance. This course is offered every fall and spring semesters with a maximum enrollment of 35.

Changes Effective Spring 2019:

• Abbreviation to ATHTR
• Description
• Add Cross-listing ATHTR 135

KINES 202: Functional Human Anatomy (4 Credits)
Old Listing Effective Through Spring 2019:

In-depth examination of the, musculoskeletal, nervous, cardiovascular, and respiratory systems, and their relationship to human movement.

Changes Effective Spring 2019:

• Abbreviation to ATHTR
• Description
• Abbreviated Title
• Add Cross-listing ATHTR 202

KINES 231: Athletic Training Clinical Practice I (3 Credits)
Old Listing Effective Through Spring 2019:

Preparation in basic psychomotor skills required in the clinical practice of athletic training. This is a laboratory fee based course. KINES 231 Athletic Training Clinical Practice I (2) This course is designed to introduce students to basic skills required for the clinical practice of athletic training. The course will teach introductory content and skills related to injury and illness prevention and management. Specific topics include preventing environmental injuries and illnesses, taping and wrapping techniques, protective equipment, preparticipation physical examinations, preparing for emergencies in the athletic setting, and concepts of basic athletic injury management. The course will meet for one hour of lecture and two hours of lab each week. Assessments will
include written and practical examinations, homework assignments, and demonstration of practical skills specific to the clinical proficiencies required to sit for the NATABOC exam (must be administered by an NATABOC approved clinical instructor per accreditation guidelines).

Changes Effective Spring 2019:

- Abbreviation to ATHTR
- Abbreviated Title
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent Courses

KINES 232: Athletic Training Clinical Practice II (3 Credits)
Old Listing Effective Through Spring 2019:

Athletic Training Clinical Practice II provides instruction in supervised practice of the basic skills required in the practice of athletic training. Topics include documentation of medical records, postural screening, assessment and improvement of flexibility, assessment, and improvement of strength, use of functional rehabilitation protocols, use of common therapeutic modalities, and description of the use of medications in sports medicine. Assessments will include written and practical examinations, homework assignments, and demonstration of practical skills specific to the clinical proficiencies required to sit for the NATABOC exam (must be administered by an NATABOC approved clinical instructor per accreditation guidelines). Students will also complete four-10-hour observations with senior athletic training students. This course provides the student with the opportunity to learn and practice clinical athletic training skills before beginning practicum experiences. The course will meet for 2-hours of lecture and 2-hours of lab each week.

Changes Effective Spring 2019:

- Abbreviation to ATHTR
- Abbreviated Title
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent Courses

KINES 233: Emergency Care in Athletic Training (3 Credits)
Old Listing Effective Through Spring 2019:

This course prepares students pursuing the athletic training major in the Department of Kinesiology with the knowledge and skills to respond to medical emergencies. Basic skills including rescue breathing, cardiopulmonary resuscitation, and first aid management of injury and illness emergencies are developed. These skills are supplemented with content related to blood borne pathogens and OSHA regulations needed for personal safety and effective management of athletic training services, the causes and prevention of sudden cardiac death in athletics, and training in the use of automated external defibrillators. The second part of the course focuses on the secondary survey and evaluation and management of central nervous system, musculoskeletal injuries, and shock. The final part of the course addresses conditions of the thorax, abdomen, and musculoskeletal system, environmental hazards encountered in athletics; and drug and alcohol overdoses and poisoning. The course will include the opportunity for professional certification in first aid and cardiopulmonary resuscitation. The course will meet for 2-hours of lecture and 2-hours of lab each week. Assessments will include written examinations, CPR certification (written and practical), blood borne pathogens certification (written), and demonstration of practical skills specific to the clinical proficiencies required to sit for the NATABOC exam (must be administered by an NATABOC approved clinical instructor per accreditation guidelines).

Changes Effective Spring 2019:

- Abbreviation to ATHTR
- Abbreviated Title
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent Courses

KINES 334: Mechanisms and Evaluation of Lower Body Athletic Injuries (3 Credits)
Old Listing Effective Through Spring 2019:

This course will focus on: 1) the etiology of athletic injuries to the lower extremity and lumbosacral spine, and 2) evaluation techniques for assessing athletic injuries to the lower extremity and lumbosacral spine. The objectives of this course include: understanding the mechanisms of athletic injuries to the lower body; demonstrating proficiency in the objective and subjective assessment procedures of lower body athletic injuries; recognizing orthopedic, neurovascular, and medical emergencies associated with lower body athletic injuries; recognizing the normal and abnormal mechanics of the lumbosacral spine and lower extremity including the walking and running gait cycles; and integration of injury mechanisms into the treatment and rehabilitation plan of care for the injured athlete.

Changes Effective Spring 2019:

- Abbreviation to ATHTR
- Abbreviated Title
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent Courses

KINES 335: Mechanisms and Evaluation of Upper Body Athletic Injuries (3 Credits)
Old Listing Effective Through Spring 2019:

Etiology of athletic injuries with scientific and practical rationales for evaluation of injuries to upper extremity, neck, head, and trunk. KINES 335 Mechanisms and Evaluation of Upper Body Athletic Injuries (3) This course will focus on: 1) the etiology of athletic injuries to the upper extremity, head, cervical spine, thorax, and abdomen, and 2) evaluation techniques for assessing athletic injuries to the upper extremity, head, cervical spine, thorax, and abdomen. The objectives of this course include: understanding the mechanisms of athletic injuries to the upper body; demonstrating proficiency in the objective and subjective assessment procedures of upper body athletic injuries; recognizing orthopedic, neurovascular, and medical emergencies associated with upper body athletic injuries; recognizing the normal and abnormal mechanics of the cervical spine and upper extremity including the overthrowing motion; and integration of injury mechanisms into the treatment and rehabilitation plan of care for the injured athlete. This course includes lectures as well as hands-on laboratory sessions. Assessment is based on student performance on written examinations, practical examinations, and written assignments. A literature review paper detailing the pathoetiology of a specific athletic injury is required. This course is required for students completing the athletic training option within the Kinesiology major. It is designed to be
taken concurrently with either KINES 395F or 395G. The course is offered every fall semester.

Changes Effective Spring 2019:

- Abbreviation to ATHTR
- Abbreviated Title
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent Courses

KINES 336: Medical Aspects of Athletic Training (3 Credits)
Old Listing Effective Through Spring 2019:

Pathology, assessment, and treatment (including pharmacology) of general medical conditions commonly seen in physically active populations. KINES 336 Medical Aspects of Athletic Training (3) This course is designed to instruct students in general medicine content and skills related to the clinical practice of athletic training. Specific topics include pathology; pharmacology; physical examination of head, ears, eyes, nose, throat, pulmonary, cardiovascular, gastrointestinal, renal, genitourinary, and dermatological conditions commonly seen in athletes; exertional heat illness; diabetes and exercise; female athlete triad; injuries in athletes with physical disabilities; and psychosocial aspects of patient-provider relationships. Several lectures will be made by physicians who specialize in sports medicine. Lab activities will include the instruction, practice, and assessment of psychomotor skills related to the course content. The course will meet for three hours per week and will include a balance of both lecture and laboratory activities. Student assessment will include written and practical examinations, homework assignments, and demonstration of practical skills specific to the clinical proficiencies required to sit for the NATABOC exam (must be administered by an NATABOC approved clinical instructor per accreditation guidelines).

Changes Effective Spring 2019:

- Abbreviation to ATHTR
- Abbreviated Title
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent Courses

KINES 395I: Practicum in Athletic Training (3 Credits: Maximum of 3 Credits)
Old Listing Effective Through Spring 2019:

KINES 395F Practicum in Athletic Training (3) This course is designed to give students practical experiences in a variety of clinical settings in which certified athletic trainers are commonly employed. Students will accumulate approximately 100-150 clinical hours learning under the supervision of certified athletic trainers in a variety of clinical settings. These settings include but are not limited to: intramural sports, club sports, outpatient sports medicine clinics, high schools, and intercollegiate athletic training rooms. In addition to clinical experiences there is also a didactic portion of this course which emphasizes students gaining proficiency in important clinical skills. There are also weekly written assignments. The objectives of this course include demonstrating proficiency in: the evaluation of an unconscious athlete; the recognition of cerebral concussion and closed head injury; the recognition of acute injury to the cervical spine; the recognition of fractures and dislocations; the assessment of neurovascular function; the recognition, treatment, and prevention of heat illnesses including heat cramps, heat exhaustion, and heat stroke; the use of splints, stretchers and spine boards in the management of injured athletes; the application of taping and wrapping techniques commonly used in the prevention and management of common athletic injuries; and in obtaining a medical history. Assessment is based on student performance on written examinations, practical examinations, written assignments, and performance in students’ clinical rotations. This course is required for students completing the athletic training option within the Kinesiology major. It is a prerequisite for more advanced athletic training practicums (KINES 395G, 395I, 495F) and it should be taken concurrently with KINES 334 or 335. It is designed to be taken the first semester following admittance to the athletic training option. This course is offered every fall and spring semester.

Changes Effective Spring 2019:

- Abbreviation to ATHTR
- Number to 495B
- Abbreviated Title
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent Courses
KINES 434: Rehabilitation of Injuries to the Lower Extremities (3 Credits)
Old Listing Effective Through Spring 2019:

Theoretical foundation and laboratory experience in manual therapy techniques and therapeutic exercises for the lower extremities. KINES 434 Rehabilitation of Injuries to the Lower Extremities (3) Rehabilitation of Injuries to the Lower Extremities is a 3-credit course offered each fall semester with an enrollment limit of 40 students. The course provides students who have been admitted into undergraduate athletic training option in the Department of Kinesiology with the theoretical foundation for application of manual therapy techniques and therapeutic exercises in the treatment of musculoskeletal injuries sustained by physically active individuals. Laboratory instruction and guided practice in performing manual therapy techniques and therapeutic exercises will also be provided. At the end of this course students: 1) can identify five components of a comprehensive plan of care for an injured athlete; 2) have a working knowledge of the impact of pain on programs and therapeutic exercise; 3) are able to perform selected manual therapy techniques and integrate them into a comprehensive plan of care; 5) understand the psychological response to injury and therapeutic exercise; 6) can develop a plan of rehabilitation utilizing principles of tissue healing, therapeutic exercise and manual therapy; and 7) instruct patients in home programs of therapeutic exercise. This course will focus on review of the basic principles of therapeutic exercise and rehabilitation on injuries to the trunk and upper extremities. This course is offered every spring semester with an anticipated enrollment of 25. Evaluation methods include quizzes, written and practical exams, rehabilitation plan of care and proficiency notebook.

Changes Effective Spring 2019:

- Abbreviation to ATHTR
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent Courses

KINES 436: Therapeutic Modalities in Athletic Training (4 Credits)
Old Listing Effective Through Spring 2019:

Lecture and laboratory course exploring physiological principles and clinical evidence to the use of therapeutic modalities in athletic training. KINES 436 Therapeutic Modalities in Athletic Training (4) Introduction to Therapeutic Modalities is a 4-credit course offered each spring semester with an enrollment limit of 40 students. The course provides students who have been admitted into undergraduate athletic training option in the Department of Kinesiology with the theoretical foundation for the application of contemporary therapeutic modalities in the treatment of musculoskeletal injuries sustained by athletic individuals. At the end of this course students will: 1) have a working knowledge of the inflammatory response to tissue injury, pain perception and the body's analgesic mechanisms; 2) understand the physical principles of thermal, acoustic, electrical, light and mechanical modalities; 3) understand the physiological response to thermal, acoustic, electrical, light and mechanical modalities; 4) be able to search for and appraise clinically relevant trials involving modality application and; 5) apply these understandings and thermal, acoustic, electrical, light and mechanical modalities in the safe and effective manner. Students are evaluated through written examinations, laboratory examinations and submitted written reviews.

Changes Effective Spring 2019:

- Abbreviation to ATHTR
- Abbreviated Title
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent courses

KINES 435: Rehabilitation of Injuries to the Trunk and Upper Extremities (3 Credits)
Old Listing Effective Through Spring 2019:

Theoretical foundation and laboratory experience in manual therapy techniques and therapeutic exercises for the trunk and upper extremities. KINES 435 Rehabilitation of Injuries to the Trunk and Upper Extremities (3) Rehabilitation of Injuries to the Trunk and Upper Extremities is a 3-credit course offered each fall semester with an enrollment limit of 40 students. The course provides students who have been accepted into the undergraduate athletic training option in the Department of Kinesiology with the theoretical foundation for application of manual therapy techniques and therapeutic exercises in the treatment of musculoskeletal injuries sustained by physically active individuals. Laboratory instruction and guided practice in performing manual therapy techniques and therapeutic exercises will also be provided. At the end of this course students: 1) can identify five components of a comprehensive plan of care for an injured athlete; 2) have a working knowledge of the effects of therapeutic exercise on tissue repair and return to activity; 3) have a working knowledge of the impact of pain on programs of therapeutic exercise; 4) are able to perform selected manual therapy techniques and integrate them into a comprehensive plan of care; 5) understand the psychological response to injury and therapeutic exercise; 6) can develop a plan of rehabilitation utilizing principles of tissue healing, therapeutic exercise and manual therapy; and 7) instruct patients in home programs of therapeutic exercise. This course will focus on review of the basic principles of therapeutic exercise and rehabilitation on injuries to the trunk and upper extremities. This course is offered every spring semester with an anticipated enrollment of 25. Evaluation methods include quizzes, written and practical exams, rehabilitation plan of care and proficiency notebook.

Changes Effective Spring 2019:

- Abbreviation to ATHTR
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent Courses
• Description
• Prerequisite/Corequisite/Concurrent Courses

NUTR 495: Advanced Field Experience in Nutrition (1-6 Credits: Maximum of 6 Credits)
Old Listing Effective Through Spring 2019:

Supervised off-campus, non-group instruction including individual field experiences, practicums or internships. Written and oral critique of activity is required.

Changes Effective Spring 2019:
• Credits
• Description
• Prerequisite/Corequisite/Concurrent Courses

PT 270W: Pathophysiology (3-4 Credits) (WF)
Old Listing Effective Through Spring 2019:

Introduction medical and post-operative conditions and/or disease states most frequently treated by physical therapy interventions. P T 270W Pathophysiology (3) This course is an introduction to the study of diseases and those conditions most often treated by Physical Therapy methods. Basic signs, symptoms, causes, and processes of disease and conditions will be covered. The course is designed to give the PTA student a working knowledge of the physiology of disease states in order to prepare the student to think and speak intelligently with patients and other health professionals regarding diseases and conditions commonly seen in physical therapy and their diagnoses, progression, and treatments. Areas of study in the course may include, but are not limited to, the history of pathophysiology, diagnostic methods, infection and healing, metaplasia, mental health, genetic and congenital disorders, and disorders of the following systems: cardiovascular, respiratory, musculoskeletal, nervous, integumentary, endocrine, blood and lymphatics. The student's knowledge of pathophysiology will be assessed in the course using any or all of the following tools: written examination, student presentations, written term papers, special projects and assignments. This course is a prerequisite for P T 250, P T 260, P T 280, P T 280W, and P T 395E. Prerequisites for this course are a grade of C or better in BIOL 141, BIOL 142, P T 150, P T 160, P T 270, P T 384, and P T 395. This course is a prerequisite for P T 395F and P T 395G. This course is offered once per calendar year and may be offered in two parts over the course of two semesters. Expected enrollment is 20-45 students, with a limit of 15 students in a given lab section. Class size, frequency of offering, and evaluation methods will vary by location and instructor. For these details, check the specific course syllabus.

Changes Effective Spring 2019:
• Credits
• Description
• Prerequisite/Corequisite/Concurrent Courses

PT 282W: Rehabilitation-2W (3 Credits) (WF)
Old Listing Effective Through Spring 2019:

Examination of techniques and laboratory experiences in rehabilitation techniques for the physically-challenged.

Changes Effective Spring 2019:
• Abbreviated Title
• Description
• Prerequisite/Corequisite/Concurrent Courses

RHS 300: Introduction to Rehabilitation and Human Services (3 Credits)
Old Listing Effective Through Spring 2019:

Description: Disability, public and private rehabilitation agencies, case management; resources for training; observations in rehabilitation settings.

Changes Effective Spring 2019:
• Description
• Prerequisite/Corequisite/Concurrent Courses

SRA 440: Security and Risk Analysis Capstone Course (3 Credits) (WF)
Old Listing Effective Through Spring 2019:

The Security and Risk Analysis Capstone course is designed to provide IST students enrolled in the SRA major to experience a semester-long security and risk problem-solving experience, providing realistic security dilemmas requiring a solution process that is well suited for teamwork
and collaboration. SRA 440W Security and Risk Analysis Capstone Course (3) This course is designed to provide IST seniors enrolled in the SRA major to experience a semester-long security and risk analysis scenario or problem-solving exercise by providing realistic analytic dilemmas requiring solutions that incorporate facets of the three SRA Options. The problems selected for the Capstone should lend themselves to team collaboration and group solutions.

Changes Effective Spring 2019:

• Number to 440W
• Abbreviated Title
• Description
• Prerequisite/Corequisite/Concurrent Courses

WMNST 100: Introduction to Women's and Gender Studies (3 Credits) (GS) (US) (IL) (BA)

Changes Effective Through Spring 2019:

Interdisciplinary consideration of the scholarly theories and research pertaining to women's experiences and women's status in contemporary American society.

Changes Effective Spring 2019:

• Abbreviated Title
• Description

WMNST 100H: Introduction to Women's and Gender Studies (3 Credits) (H) (US) (IL) (BA)

Changes Effective Through Spring 2019:

• Number to 100U, Abbreviated Title, Description

Course Changes: Effective Summer 2019

AAAS 3: Scholarship and Community (1 Credit)

Introduction to college life for new students in a designated residential community to help them optimize their Penn State experience.

Changes Effective Summer 2019:

• Abbreviation to AFAM

AGBM 170: Investigating the U.S. Food System: How food moves from field to table (3 Credits) (US)

Changes Effective Through Summer 2019:

Our food system is a product of complex interaction of three systems: the natural ecosystem, the managed agricultural system, and the socio-economic system. Farming, food processing, food distribution, and consumption decisions are all governed by the interaction of these systems. Consequences of these decisions, along with the interactions themselves, have generated a number of overarching scientific and social "hot-button" topics that affect or are affected by the food system: > genetically modified organisms (GMOS), > organic crops and food, > agricultural and food policy, > bio-based energy and biofuels, > environmental implications from agriculture, > food safety, > the role of agribusiness, > animal welfare rules and regulations, > food labeling, > diet and health, > agricultural trade and international development, and > food insecurity and food access. Students in this course will investigate and discuss all of these topics by reading both popular press accounts and peer-reviewed academic research, and by hearing guest speakers from a variety of fields and academic disciplines. However, to provide additional relevance, the course will use specific foods or crops to provide a more concrete examination of these topics. For each of these specific foods, the class will explore and answer seven important where, how, and why questions: (i) Where is the crop grown and why? (ii) How is it grown, and why is it grown the way it is? (iii) What policies affect production and/or consumption? (iv) How does this food get to consumers? (v) What role do agribusinesses such as food processors and food retailers play? (vi) What role do consumers and consumer groups play? (vii) Are alternative production or marketing systems available? In general, most of these questions will be answered in a social science framework that includes business, economics, and sociology. However, exploring these simple questions will lead to new questions, and the class will have the freedom to explore these questions as deeply as possible. Individual foods or crops examined will include tomatoes, bananas, spinach/lettuce, corn, apples, oranges, poultry/eggs, beef, and pork. These foods or crops represent both fresh and processed foods, as well as both domestically and internationally grown foods. While these foods and crops will be discussed individually, a thorough understanding of the food system will require comparing the answers to the seven questions for multiple foods. Therefore, at least twice during the semester, as understanding builds, the class will pause, and try to evaluate the food system. Finally, when attempting to answer the seven main questions for each of the individual foods and crops, the class will explore the context of current U.S. cultural attitudes and beliefs, and when possible, a cultural history.

Changes Effective Summer 2019:

• Abbreviated Title
• Description
• Add General Education Designation GS

AMST 103: American Masculinities (3 Credits) (US) (GH)

Old Listing Effective Through Summer 2019:

Introduction to aspects of masculinities and manhood in America. AMST 103 American Masculinities (3) (GH;US)This course examines aspects of masculinities and manhood in America from a variety of perspectives. It views American manhood through the lens of gender, and presents ideas on the ways that issues of masculinity and sexuality enter, or have entered, discourses of politics, literature, and medicine, among others. It takes up discussion of the varieties of masculinities in American experience across regions, ethnicities, and religions. Students will view these forms of masculinities in different media, including folklore, media, advertising, art, and literature.

Changes Effective Summer 2019:

• Abbreviated Title
• Description

ANSC 100: Introduction to Animal Industries (3 Credits) (GN)

Old Listing Effective Through Summer 2019:

Students will study the biology, production systems, terminology, and emerging issues of the N. American animal industries. ANSC 100 Introduction to Animal Industries (3) (GN) This course will introduce students to the breadth and scope of animal agriculture in North America with emphasis on food producing animals. Additionally, fiber producing animals, pets, pleasure animals, and alternative livestock will also be studied. Students will be exposed to biological concepts and their relationship to contemporary production systems, economics,
terminology and industry issues to enhance understanding of and appreciation for various uses of animals in North America. The course would be available in a web-based format with extensive use of video tours of animal housing facilities, expert interviews, and explanations of the biology behind common production practices and will be offered annually during spring and summer semesters. Student performance will be assessed via unit quizzes, popular press article critiques, and a final paper.

Changes Effective Summer 2019:

- Abbreviated Title
- Description

**ANTH 1: Introductory Anthropology (3 Credits) (US) (IL) (BA) (GS)**

Old Listing Effective Through Summer 2019:

Prehistoric and traditional peoples and cultures; traditional customs and institutions compared with those of modern society.

Changes Effective Summer 2019:

- Long Title
- Description
- Remove US Cultures
- Add B.A. Other Cultures Designation

**ANTH 9: Rise of Civilization in the Old World (3 Credits) (IL) (BA) (GS)**

Old Listing Effective Through Summer 2019:

Evolution of Old World complex societies, especially the first great civilizations of Mesopotamia, Egypt, China, and the Indus Valley. ANTH 9 Rise of Civilization in the Old World (3) (GS;IL)(BA) This course meets the Bachelor of Arts degree requirements. ANTH 9 is an introductory anthropology course with several major themes and purposes. Most fundamental are the origins and development of the earliest complex human societies – what we conventionally call civilizations – in the Old World, namely those of Mesopotamia, Egypt, the Indus Valley, and China. Course information emphasizes the nature of these societies, analysis and interpretation of their basic institutions, their religions and world views, and their culture histories. Within the context of each segment sociological concepts such as “institution”, “household”, “stratification”, “political economy”, “urbanization”, and a host of others are used as organizing features. Issues of gender, ethnicity, and class structure are also discussed. Evaluation will consist of 3-6 museum or web-based writing assignments worth 15-30% of the grade. There will be two mid-term examinations and one final examination worth 70-85% of the grade. Although this is a large course, exams are hand-written and graded, and require a mix of objective and subjective responses. Each exam has an essay component. This course parallels ANTH 8, its New World counterpart. It serves as a useful precursor to ANTH 456 (Cultural Ecology), and also for courses in other departments where broad-based comparisons of ancient civilizations or archaeological methods are of concern, or where (as in CAMS) more specialized courses in Egyptian archaeology, etc., are offered.

Changes Effective Summer 2019:

- Number to 9N
- Description
- Add B.A. Humanities Designation
- Add General Education Designations GH and Inter-Domain

**ANTH 21: Introductory Biological Anthropology (3 Credits) (GN) (BA)**

Old Listing Effective Through Summer 2019:

The role of human biology and evolution in culture, society, and behavior. ANTH 21 Introductory Biological Anthropology (3) (GN)(BA) This course meets the Bachelor of Arts degree requirements. “Introduction to Biological Anthropology” is designed to present to the student the basic principles and findings of human population biology. To that end, the instructors review data on biological variability among contemporary human populations and among the extensive fossils that document human evolution. Comparison between human and nonhuman animals, particularly, the surviving nonhuman primates, provides an essential “Zoological Perspective” by which we can understand the origins and evolution of humankind on this planet. The single unifying concept in biological anthropology is evolution. In this course, the student will be introduced to the mechanisms underlying evolution and their application to past and present human populations. Evolutionary biology emphasizes the similarity between closely related forms, for example, chimpanzees and humans share more traits in common than do dogs and humans, because they have a more recent common ancestor. It also underscores the diversity among individuals in a population, for example, despite
being members of the same species, all humans are biologically unique. The process of evolution accounts for both the similarities and the differences within and between populations. It is therefore the theory of evolution that will organize the diverse content of this course. There are two lectures per week. In addition, there is a weekly practicum class where the student explores material presented in lectures as well as learns new information. Exercises and hands-on demonstrations help the student understand the principles and findings of biological anthropology. Brief written practicum exercises often based on team projects foster interactive learning. Grades are based on three examinations and practicum exercises. This course is one of three core-courses required of majors and minors in the Department of Anthropology. The course can be used to fulfill three credits of General Education in the Natural Sciences. Students can expect to acquire a general introduction to the University as an open community of researchers and scholars who attempt to describe accurately, and hence understand, “The Human Condition.” Students in this class will therefore have the opportunity to explore their responsibilities as members of an intellectual community of free inquiry. This course offers the student the opportunity to develop intellectual relationships with faculty, graduate students and fellow classmates who share similar academic interests in biological anthropology and related fields of inquiry.

Changes Effective Summer 2019:

- Description

ANTH 22: Humans as Primates (3 Credits) (GN)

Old Listing Effective Through Summer 2019:

The biological basis of human behavior within the context of primate biology, behavior, and evolution. ANTH 22 Humans as Primates (3) (GN) Humans as Primates is intended to introduce the student to the biological bases of human anatomy and behavior by drawing comparisons to the behavior and biology of our closest living relatives, the non-human primates. The principal goal of the course is to critically evaluate arguments concerning what uniquely makes us human and the role of genetics, environment, and evolutionary history on the development of human behavior and anatomy. The course will draw heavily on studies of living non-human primates as well as evolutionary theory, paleoanthropology, and psychology to addresses issues such as human growth and development, diet, human variation, communication, intelligence, reproduction, aggression, and culture. Humans as Primates is divided into four main thematic units each designed to present a set of related lessons exploring the role of biology in various aspects of human life. The first unit provides the foundation for the course by introducing the place of humans in the natural world. This unit presents a survey of living primates and their relationship to humans as well as an overview of evolutionary processes and human evolution. The other units present topics in human biology, communication, and social behavior focusing specifically on topics of importance to current events and aspects of popular culture and modern life. This course should be of significant interest to students in a diversity of disciplines including the biological and social sciences as well as anyone interested in human behavior. The course will rely on readings from the scientific and popular literature and will present information using a variety of formats including images, movies, and interactive activities. Students will be evaluated with a combination of frequent online quizzes, individual assignments, participation in online discussions. The course can be used to fulfill three credits of General Education in the Natural Sciences. As such this course will help students understand how scientific information from a variety of disciplines can be used to investigate and understand human biology and behavior. The course will introduce the student to methods of data collection and analysis, foster critical thinking skills, and provide a rich background for understanding human diversity, human biology, and behavior. Students will have the opportunity to synthesize information from a broad range of disciplines to develop a fuller understanding of the biological basis of human behavior.

Changes Effective Summer 2019:

- Description

ANTH 45U: Cultural Anthropology (3 Credits) (H) (US) (IL) (GS) (BA)

Old Listing Effective Through Summer 2019:

Beginnings of human culture; economic life, society, government, religion, and art among traditional peoples. ANTH 45U Cultural Anthropology (3) (GS;US;IL) (H) Cultural anthropology is the study of human cultural variation across time and space. This course will be a survey of basic issues, concepts and methods in cultural anthropology. We will consider specific issues such as: the organization of production and distribution; consumption patterns; age and gender relations, family organization, belief systems, social inequality, and cultural change. Throughout, we will be evaluating different approaches to understanding cultural diversity and we will make cross-cultural comparisons to understand cultural behaviors. We will draw examples from around the world to broaden our understanding of cultural experiences and adaptations in different contexts. This honors course will include external case studies and audio-visual materials to complement the readings. Compared to regular introductory anthropology courses, the size of this honors course will allow more opportunities for the students to engage in classroom discussions.

Changes Effective Summer 2019:

- Number to 45Q
- Abbreviated Title
- Long Title
- Description
- Add B.A. Humanities Designation
- Add General Education Designations GH and Inter-Domain

ARTH 304: Italian, Spanish, and Spanish Colonial Baroque Art and Architecture (3 Credits) (IL) (BA) (GA)

Old Listing Effective Through Summer 2019:

A survey of painting, sculpture, and architecture in Italy, Spain, and the Spanish Americas from 1600-1750. ARTH 304 Southern Baroque Painting (3)(GA;IL)(BA) This course meets the Bachelor of Arts degree requirements. Art History 304 concentrates on the art of Italy, Spain, and the Spanish Colonial from 1600-1750. Discussion will concentrate on what constitutes the baroque and its interpretation in each geographic area as well as issues such as patronage, primary sources, iconography, and historical context. The class will begin with the indications of the new Baroque in Italy during the 1580’s and proceed to Spain and the Spanish Colonial World. The course is designed to meet two principal goals. The first is to increase students’ powers of visual analysis and help them build a critical vocabulary for discussing an art object’s medium, composition, style, and iconography. The second is to foster an understanding of the deep implication of the visual arts in their social and cultural contexts. The course therefore involves significant material relating to political, economic and religious issues. It investigates problems in patronage, function, reception and censorship. It considers such intra- and cross-cultural issues as representations of religious vision, court politics, and social status. Requirements include exams
and at least one paper. As a general education course in the arts, this course provides an introduction to Baroque Art for a student of any major. This course has no prerequisite, and presumes no prior exposure to fine art. Students majoring in Art History will learn in it both the common vocabulary of the field and the outlines of the field that form the foundation for future study.

Changes Effective Summer 2019:
- Number to 204
- Title
- Description

**BA 100: Introduction to Business (3 Credits) (GS)**

Old Listing Effective Through Summer 2019:

A comprehensive view of the contemporary environment of business. BA 100 Introduction to Business (3) (GS)This course provides a broad overview of the study of business and its environment, organization, operation, and interrelationships with government and society. Topic areas include; economic systems, forms of business ownership, information, accounting, finance, management, and marketing principles, legal and regulatory environments, business ethics and international business. A student majoring in business will develop a broad basis for further study in a specific area in business, while other majors will become familiar with the American enterprise system and the functions and issues facing business today.

Changes Effective Summer 2019:
- Abbreviated Title
- Description

**BA 100S: Introduction to Business (3 Credits) (GS) (FYS)**

Old Listing Effective Through Summer 2019:

A comprehensive view of the contemporary environment of business.

Changes Effective Summer 2019:
- Description

**CAMS 45: Classical Mythology (3 Credits) (IL) (BA) (GH)**

Old Listing Effective Through Summer 2019:

Introduction to Greek and Roman divinities, heroes and heroines; survey of the major myths and their influence on Western culture. CAMS 045 Classical Mythology (3) (GH;IL)(BA) This course meets the Bachelor of Arts degree requirements. The aim of CAMS 045 is to introduce students to the stories that have shaped western art and civilization for a longer time and more profoundly than any others: the myths of ancient Greece and Rome. It is a common assumption that the ancients needed myth because they had no science, and that the birth of science was the death of myth. We beg to differ. A recurring theme of this course is that while science has replaced myth to explain how the world works, myth has always played several other roles in human experience, and continues to do so. Even today myth is everywhere: in literature, the performing arts, and the visual arts, in both high and popular culture. Myth reveals truths about our humanity, and it reaches people at a gut level—which is why it is still of vital interest to novelists, theologians, psychologists, politicians, ad agents, poets, and scriptwritersThe course has several objectives. First and foremost, we want students to come to know, appreciate, and enjoy the myths themselves, by reading them directly in English translations of ancient epics, dramas, and other literary works. Second, we hope that students will come to appreciate the pervasiveness of myth, and its power, not just in past cultures, but also in other cultures throughout the world as well as our own. Third, central to the course are the significant differences between classical antiquity and modern Western societies including the contrast between Polytheistic Paganism and Judeo-Christian Monotheism. The differences in values and practices such as the attitudes toward human sexuality, general relations, slavery, and socioeconomic relations are also discussed. This course will provide valuable experience in the fundamental skills requisite for success both in the University and the workplace: reading, writing, and research. Examples of the evaluation methods may include: a five-page paper, which will be critiqued and returned for correction and rewriting before receiving a final grade, carried out collaboratively with three or four other students, and a group project involving library research and the creation of a WWW-based exhibition of a mythological theme.

Changes Effective Summer 2019:
- Description

**CAMS 45H: Classical Mythology (3 Credits) (H) (IL) (BA) (GH)**

Old Listing Effective Through Summer 2019:

Introduction to Greek and Roman divinities, heroes and heroines; survey of the major myths and their influence on Western culture.

Changes Effective Summer 2019:
- Description

**CAMS 122: Apocalypse and Beyond (3 Credits) (IL) (BA) (GH)**

Old Listing Effective Through Summer 2019:

This course surveys apocalyptic literature and apocalyptic movements from the ancient Near East to the modern world. CAMS (J ST/RL ST) 122 Apocalypse and Beyond (3) (GH;IL)(BA) This course meets the Bachelor of Arts degree requirements. This course offers a scholarly survey of apocalyptic literature and apocalyptic imagination about the end of the world, from its beginnings in the ancient Near East and the Bible to some examples from the modern world. The course will cover three areas: 1) the ancient literary genre of apocalypse in the Near East; 2) apocalyptic writings in the Jewish and Christian traditions (especially the books of Daniel and Revelation in the Bible, and the Qumran Dead Sea Scrolls), as well as within Islam, which generated Western apocalyptic thinking throughout the ages; and 3) some historical examples and discussion of the sociological underpinnings of apocalyptic groups in the medieval to modern periods. Additional attention will be paid to the impact that apocalyptic worldviews have had on the secular world, especially in the fine arts and cinema.

Cross-Listed Courses: JST 122 RLST 122

Changes Effective Summer 2019:
- Description

**CAS 272: Political Communication and Technology (3 Credits) (GH)**

Old Listing Effective Through Summer 2019:

This course examines how interactive communication technologies reshape political rhetoric, discursive civic culture, deliberation, and participatory democracy. CAS 272 Political Communication and Technology(3)(GH) This course examines how interactive communication technologies reshape political rhetoric, discursive civic culture, deliberation in the online public sphere, and participatory democracy.
It traces the evolution of the public sphere and explores theoretical and empirical issues related to online political discourse (blogs, political discussion fora, viral politics of social networking sites), cyberactivism, smart mobs, networked publics, and peer-to-peer production (YouTube, Wikis). CAS 272 concentrates on online rhetorical and discursive strategies of candidates for public office, and individuals and organizations campaigning on specific issues and causes. It emphasizes civic engagement and includes topical areas such as mechanisms of online public spheres, citizen generated discourse and content, viral politics, connections between social networking sites and political discourse, and behaviors such as networked activism. It examines how various interactive communication options have affected political discourse, campaign communications and public deliberation. It provides students with hands-on experiences in analyzing the rhetorical and persuasive strategies involved in creating video content, writing blogs, creating wikis and twitter messages. It teaches students how they could use these communication options in working for political campaigns, civic action groups and non-profit institutions. The goal of the course is to help students understand the opportunities and constraints involved in using interactive communication technologies for civic and political actions, and facilitate their development as informed citizens. Class activities focus on identification and critique of rhetorical strategies employed when using interactive communication technologies, and learning to create content such as weblogs, wikis, and mashups. Students will be graded on exams, participation in discussion groups, analyzing and connecting course concepts to real world examples, creating content such as mashups, and analysis of rhetorical strategies of political candidates and activist groups. CAS 272 is highly recommended to students interested in examining the potential of interactive communication technologies for civic and political action.

Changes Effective Summer 2019:

- Number to 272N
- Description
- Add General Education Designations GS and Inter-Domain

CAS 311: Methods of Rhetorical Criticism (3 Credits)
Old Listing Effective Through Summer 2019:

Principles for the analysis and evaluation of public discourse.

Changes Effective Summer 2019:

- Abbreviated Title
- Description
- Add General Education Designation GH

CHEM 213: Laboratory in Organic Chemistry (2 Credits)
Old Listing Effective Through Summer 2019:

Basic laboratory operations; synthesis and chemical or instrumental analysis. Because of duplication of subject matter, students may not receive credit for both CHEM 203 and CHEM 213. CHEM 213 CHEM 213 Laboratory Organic Chemistry (1-2) A strong foundation in organic laboratory skills is provided by this laboratory course. Laboratory work includes learning the basic techniques and recrystallization/melting point determination, distillation, liquid/liquid extraction, thin layer chromatography and column chromatography. Mastery of these basic techniques lays the foundation for carrying out a number of organic syntheses or natural product isolations. Students are often provided with hands-on access to instrumentation for the characterization of synthetic products or organic unknowns using standard analysis methods such as IR, NMR, UV/V is spectroscopy, mass spectrometry, polarimetry, HPLC, GC and GC-MS. Chemistry 210 is a prerequisite and CHEM 212 may be a corequisite for this course, because they provide the theoretical background for the reaction chemistry as well as the spectroscopic characterization of organic molecules. *Note: The number of credits and meeting times vary from location to location. Some locations offer CHEM 213 as two one-credit courses to be taken in sequential semesters, whereas other locations offer CHEM 213 as a single-semester two-credit course. Normally, the latter format involves two 3-hour labs per week in addition to extensive written work outside of the laboratory. The prerequisite / concurrent requirement for CHEM 212 does not apply when CHEM 213 is taken as a 1 credit course.

Prerequisite: CHEM 210. Prerequisite or concurrent: CHEM 212

Changes Effective Summer 2019:

- Prerequisite/Corequisite/Concurrent Courses

CHEM 213W: Laboratory in Organic Chemistry – Writing Intensive (2 Credits) (WF)
Old Listing Effective Through Summer 2019:

Basic laboratory techniques learned in context via theme-based modules, spectral analysis, multi-step synthesis, and professional scientific writing. Because of similarity of subject matter, students may not receive credit for both CHEM 203 and CHEM 213.

Prerequisite: CHEM 210.

Prerequisite or Concurrent: CHEM 212

Changes Effective Summer 2019:

- Prerequisite/Corequisite/Concurrent Courses

CHNS 121: Chinese Film and New Media (3 Credits) (IL) (BA) (GH)
Old Listing Effective Through Summer 2019:

Survey of Chinese film and new media in the twentieth century and beyond, with attention to changing cultural settings. Taught in English. CHNS 121 Chinese Film and New Media (3) (GH;IL) (BA) This course meets the Bachelor of Arts degree requirements. This is intended to provide an introduction to modern and cutting-edge forms of cultural production in the Chinese-speaking world from the twentieth century to the present day. Prior study of China is not required and materials will be available in English. Students will learn about major technologies and forms of media, including film, TV, and various forms of new media (cellphone novels, blogs, MMOGs, IM, and Web 2.0 for instance). Readings and screenings will cover several artistic modes including formalism, historiography, documentary, period drama, and experimental works. The course, or individual units within the course, will be structured so that students develop an historical perspective, allowing them to understand the cultural contexts that have inspired the creative works under study. By examining Chinese-language film and new media with attention to changing cultural settings, students will investigate such topics as the relation between social institutions and the individual, the formation and expression of identity, changing gender roles and family structures, the impact of technological and economic trends on social structure, and changing climates of censorship and freedom of expression. In addition, students will learn to think critically about various media's techniques and aesthetics of representation, and will become more engaged, critical spectators of film and related media. Class work includes some lecture but emphasizes guided discussions, group work, writing exercises, and some student presentations. This participatory approach is intended to
deepen students' appreciation of the works, to help them understand value systems that may differ from those predominant in western cultures, and to assist students in developing both analytical and expressive abilities. Through critical reading, group discussion and interpretive writing, students will hone skills for evaluating modes of cultural production and consumption in the Chinese-speaking world. Evaluation will be through means such as in-class presentations, short writing assignments, midterms or quizzes, one analytic paper (3-7 pages), and in-class/on-line participation and discussion. The course is designed to be suitable for all students generally interested in China, or interested in various fields of humanistic study, whether or not they have previously studied Chinese culture. It is designed to count as General Education and as a B.A.

Changes Effective Summer 2019:

- Number to 121N
- Description
- Add General Education Designations GA and Inter-Domain
- Add B.A. Other Cultures and Arts Designations

**CMPSC 444: Secure Programming (3 Credits)**
**Old Listing Effective Through Summer 2019:**

Secure software design principles/practice, common threats, applied cryptography, trust management, input validation, OS-/programming language- specific issues, software validation. CMPSC 444 Secure Programming (3) This course presents an overview of the principles and practice of secure software design. The course begins with a presentation of overarching principles of secure software development that enable the design, implementation, and testing of secure systems that can withstand attacks. These principles and strategies for realizing them will be illustrated through an analysis of common security issues and pitfalls in the software development process. The course will cover a variety of programming languages including C/C++, Java, and scripting languages; different classes of systems including standalone applications, client/server systems, and peer-to-peer applications; and development issues specific to different operating systems. Students will develop and analyze programs that demonstrate security principles, strategies, coding techniques, and the use of tools that can help make code more resistant to attacks.

Concurrent Courses: CMPSC 430, CMPSC 431, CMPSC 421W

Changes Effective Summer 2019:

- Description
- Prerequisite/Corequisite/Concurrent Courses

**COMM 271: Principles of Multimedia Journalism (3 Credits)**
**Old Listing Effective Through Summer 2019:**

The course introduces how journalists work with the tools of multimedia and how multimedia is changing journalism. COMM 271 Principles of Multimedia Journalism (3) Journalists have never had better tools to cover the news than they do today. Every news organization can now tell stories with text, video, sound and images. Reporters can interact with their audience while covering stories in real time. Audiences have unprecedented choice in when and where they can access information. These innovations are allowing the news industry to reinvent itself. But there are major challenges. What does it take to be competitive in a 24/7 news cycle? What is the best way to work with text, video, still images and sound? How much do reporters and editors need to know about these tools? What role do social media have in this mix? Are ethical standards and being lost in the scramble to gain audience and grow revenue? This course will introduce multimedia news and be a foundation for skills courses. It will examine the latest platforms and tools of the trade, adding value with multimedia, the roots and development of multimedia, working in a cross-platform environment, multimedia reporting and editing, data visualization, intellectual property rights, ethical issues, citizen journalism, social media and the news, business models for multimedia journalism, finding a job, and other subjects.

Changes Effective Summer 2019:

- Description
- Long Title
- Abbreviated Title

**ECON 14: Principles of Economics (3 Credits) (BA) (GS)**
**Old Listing Effective Through Summer 2019:**

Analysis of the American economy, emphasizing the nature and interrelationships of such groups as consumers, business, governments, labor, and financial institutions. Students who have passed ECON 002 or 004 or are registered in the College of Business Administration may not schedule this course.

Changes Effective Summer 2019:

- Abbreviated Title
- Description

**ECON 102: Introductory Microeconomic Analysis and Policy (3 Credits) (BA) (GS)**
**Old Listing Effective Through Summer 2019:**

Methods of economic analysis and their use; price determination; theory of the firm; distribution. ECON 102 Introductory Microeconomic Analysis and Policy (3)(GS)(BA) This course meets the Bachelor of Arts degree requirements. Economics is the study of how people satisfy their wants in the face of limited resources. One way to think about economics is that it is a consistent set of methods and tools that is valuable in analyzing certain types of problems related to decision-making, resource allocation, and the production and distribution of goods and services. There are two main branches of economics, microeconomics, and macroeconomics. Macroeconomics is concerned with economy-wide factors such as inflation, unemployment, and overall economic growth.

Microeconomics deals with the behavior of individual households and firms and how government influences that behavior; it is the subject of this course. More specifically, ECON 102 is an introduction to microeconomic analysis and policy. The principal objective of the course is to enable students to analyze major microeconomic issues clearly and critically. Students will be introduced to the methods and tools of economic analysis, and these analytical tools will be applied to questions of current policy interest. Learning these methods and tools and applying them to interesting policy questions and issues is sometimes called “thinking like an economist.” An important goal of this course is to take each student as far down the road of “thinking like an economist” as possible. A variety of mechanisms are used to assess student performance. These evaluation methods typically include exams, quizzes, homework assignments, and group projects. ECON 102 is an introductory course in economics and as such, serves as a prerequisite for several microeconomics-oriented 300-level courses. It is also a required course for all majors and minors in economics, and meets
requirements for a General Education (GS) or Bachelor of Arts social science course.

Changes Effective Summer 2019:

• Abbreviated Title
• Description

ECON 104: Introductory Macroeconomic Analysis and Policy (3 Credits) (BA) (GS)
Old Listing Effective Through Summer 2019:

National income measurement; aggregate economic models; money and income; policy problems. ECON 104 Introductory Macroeconomic Analysis and Policy (3)(GS)(BA) This course meets the Bachelor of Arts degree requirements. Economics is the study of how people satisfy their wants in the face of limited resources. One way to think about economics is that it is a consistent set of methods and tools that is valuable in analyzing certain types of problems related to decision-making, resource allocation, and the production and distribution of goods and services. There are two main branches of economics, microeconomics, and macroeconomics. Microeconomics deals with the behavior of individual households and firms and how that behavior is influenced by government.

Macroeconomics is concerned with economy-wide factors such as inflation, unemployment, and overall economic growth; it is the subject of this course. More specifically, ECON 104 is an introduction to macroeconomic analysis and policy. The principal objective of the course is to enable students to analyze major macroeconomic issues clearly and critically. Students will be introduced to the methods and tools of economic analysis, and these analytical tools will be applied to questions of current policy interest. Broadly, the course focuses on the determination of national income, on unemployment, inflation, and economic growth in the context of a global economy, and on how monetary and fiscal policy, in particular, influence the economy. Learning the methods and tools of economics and applying them to interesting policy questions and issues is sometimes called “thinking like an economist.” An important goal of this course is to take each student as far down the road of “thinking like an economist” as possible. A variety of mechanisms are used to assess student performance. These evaluation methods typically include exams, quizzes, homework assignments, and group projects. ECON 104 is an introductory course in economics, and as such, serves as a prerequisite for 300-level courses in intermediate macroeconomic analysis, international economics, and money and banking. It is also a required course for all majors and minors in economics, and meets requirements for a General Education or Bachelor of Arts Social Science (GS) course.

Changes Effective Summer 2019:

• Abbreviated Title
• Description

ECON 302: Intermediate Microeconomic Analysis (3 Credits) (BA) (GS)
Old Listing Effective Through Summer 2019:

Allocation of resources and distribution of income within various market structures, with emphasis on analytical tools.

Prerequisites: ECON 102

Changes Effective Summer 2019:

• Abbreviated Title
• Description

ECON 304: Intermediate Macroeconomic Analysis (3 Credits) (BA) (GS)
Old Listing Effective Through Summer 2019:

Analysis of forces that determine the level of aggregate economic activity.

Prerequisites: ECON 104

Changes Effective Summer 2019:

• Abbreviated Title
• Description

ECON 315: Labor Economics (3 Credits) (BA) (GS)
Old Listing Effective Through Summer 2019:

Economic analysis of employment, earnings, and the labor market; labor relations; related government policies.

Prerequisites: ECON 102

Changes Effective Summer 2019:

• Abbreviated Title
• Description

ECON 323: Public Finance (3 Credits) (BA) (GS)
Old Listing Effective Through Summer 2019:

Contemporary fiscal institutions in the United States; public expenditures; public revenues; incidence of major tax types; intergovernmental fiscal relations; public credit.

Prerequisites: ECON 102

Changes Effective Summer 2019:

• Abbreviated Title
• Description

ECON 333: International Economics (3 Credits) (BA) (GS)
Old Listing Effective Through Summer 2019:

Why nations trade, barriers to trade, balance of payments adjustment and exchange rate determination, eurocurrency markets, and trade-related institutions.

Prerequisites: (ECON 102 and ECON 104) or ECON 014

Changes Effective Summer 2019:

• Abbreviated Title
• Description

ECON 342: Industrial Organization (3 Credits) (BA) (GS)
Old Listing Effective Through Summer 2019:

Industrial concentration, size, and efficiency of business firms, market structure and performance, competitive behavior, public policy and antitrust issues.

Prerequisites: ECON 102

Changes Effective Summer 2019:
ENGL 231: American Literature to 1865 (3 Credits) (BA) (GH)
Old Listing Effective Through Summer 2019:

Introduction to literary history and analysis; writers such as Bradstreet, Franklin, Emerson, Hawthorne, Douglass, Thoreau, Fuller, Melville, Whitman, and Dickinson. ENGL 231 American Literature to 1865 (3) (GH)/(BA) This course meets the Bachelor of Arts degree requirements. Focusing on major writers and their cultural contexts, English 231 surveys American literature to 1865. A remarkable amount of important literature was produced during this period. Students will read major texts like The Scarlet Letter, Leaves of Grass, and Narrative of the Life of Frederick Douglass; learn about renowned authors such as Benjamin Franklin, Henry David Thoreau, and Emily Dickinson; and be introduced to influential literary forms, from Native American oral forms to the short story and free verse. The tradition of American literature to 1865 evolved over periods of significant upheaval and change. Students will also learn about the shifting historical and ethical orientations that energized this tradition from pre-colonial times to periods of Republicanism and Romanticism. As an introductory survey of American literature, English 231 welcomes non-majors: no previous course in literature is required. By reading and discussing some of the most important works in American literature, students will sharpen their skills of interpretation while surveying an important literary tradition.

Prerequisites: ENGL 15; ENGL 30 OR (ENGL 137H, ENGL 138T)

Changes Effective Summer 2019:

- Description
- Prerequisite/Corequisite/Concurrent Courses
- Add US Cultures Designation

ENGL 231W: American Literature to 1865 (3 Credits) (WF) (BA)
Old Listing Effective Through Summer 2019:

Introduction to literary history and analysis. Writers such as Bradstreet, Franklin, Emerson, Hawthorne, Douglass, Thoreau, Fuller, Melville, Whitman, and Dickinson.

Prerequisites: ENGL 15; ENGL 30

Changes Effective Summer 2019:

- Number to 231Y
- Description
- Prerequisite/Corequisite/Concurrent Courses
- Add US Cultures Designation
- Add General Education Designation GH

ENGL 233: Chemistry and Literature (3 Credits) (BA) (GN) (GH)
Old Listing Effective Through Summer 2019:

Exploration of key concepts of chemistry, the reciprocal influence of chemistry and literature through history, and the relationship of science to society, culture, and values. ENGL (CHEM) 233 Chemistry and Literature (3) (GN or GH) ENGL/CHEM 233 is a pedagogically innovative course that will be team taught by an instructor from the English department and one from the Chemistry department. Both instructors will be present in the classroom throughout the semester, providing joint presentations and leading discussions. Students may earn either GH or GN credit for the course, but not both. This course teaches both basic concepts of chemistry and their cultural elaboration in literature. It seeks to provide students with a nuanced understanding of how literature and science inform each other and negotiate cultural, religious, and political tensions. The course seeks to explore ways in which our modern world is defined by and dependent on a variety of sciences and technologies. The impact of scientific and technological discoveries continues to dominate discussions of who we are, where we come from, where we are going, and our place in the universe. Understanding how we, as a society, have acquired knowledge is especially important when the ideas, perspectives, and discoveries are perceived to be in conflict with our religious, cultural, or political beliefs. Understanding the origin and development of these ideas, perspectives, and discoveries is an essential component of science and scientific achievement, but too often our methods of teaching science focus almost exclusively on teaching facts and theories at the expense of the historical discovery and development of those facts and theories. This course teaches both the scientific facts and theories and the contexts of their production in order to sharpen students’ abilities at critical evaluation of facts. The literary and scientific focus will vary from class to class, but may include writings by literary authors such as Edward Bulwer-Lytton, Bram Stoker, H. G. Wells, Garrett Serviss, William Butler Yeats, Arthur Machen, D.H. Lawrence, A. E. Waite, Aleister Crowley, Arthur Conan Doyle, and Camille Flammarion, and scientific texts by scientists such as William Crookes, William Ramsay, Frederick Soddy, Ernest Rutherford, Wilhelm Comad Roentgen, Henri Bequerel, J. J. Thomson, Niels Bohr, and Marie Curie. Like many literature courses, ENGL/CHEM 233 interprets history, assesses individual and social behavior, engages philosophical ideas, and expresses ethical and aesthetic values. It is especially useful at exploring cultural and social tensions involving scientific knowledge. For students in science programs, the course will explore the technical and conceptual dimensions of scientific knowledge in historical and cultural context. Political, cultural and personal motivations are integral components of the scientific method and deeply influenced the discovery of many of the fundamental chemical and physical concepts students are expected to master in their science curricula. Students should expect to take two exams consisting of a midterm and a final, to write at least two papers for the course demonstrating their abilities at literary analysis and grappling with the themes of the course, and to make a group presentation to the class. Classroom discussion and general class participation will also be a factor in evaluation. The course can be used as an elective credit toward the English Major and Minor, and can help students in English, Chemistry, or any other major fulfill General Education degree requirements. It will be offered once every other year with 20 seats per offering.

Cross-Listed Courses: CHEM 233

Changes Effective Summer 2019:

- Number to 233N
- Description
- B.A. Natural Sciences Designation
- Add General Education Designation Inter-Domain
- Cross-listed Course to CHEM 233N

ENGL 468: African American Poetry (3 Credits) (US) (BA)
Old Listing Effective Through Summer 2019:

African American poetry within the contexts of the black oral tradition and transformed European literary tradition.

Prerequisites: ENGL 15 OR ENGL 30
A survey of German film from its beginnings to the present, with emphasis on historical, political, and cultural contexts. GER 189 German Film (3) (GH;IL) This course is an introduction to German cinema, broadly defined as any representation of moving images made in Germany, Switzerland, or Austria, or by filmmakers from these countries working in exile. The course will be both an historical survey of the developments in German film, as well as a general introduction to film analysis. Neither prior knowledge of German culture and language nor of film history and terminology is required. All materials will be supplied in English. Students will learn about the technology of film production as well as fundamental concepts for film analysis (shots, angles, sound, lighting, etc.). The course will be structured around different political and cultural contexts, providing students with a concrete historical perspective on Germany from the late nineteenth to the early twenty-first centuries. Screenings will cover several artistic modes, including comedy, melodrama, propaganda film, experimental film, period drama, crime drama, horror film, and documentary. Readings will complement screenings with seminal writings by filmmakers and theorists, as well as texts that provide historical perspective and close analysis. By examining German film with attention to changing cultural settings, students will investigate such topics as the relation of memory and history, the representation of war and genocide, the roles of propaganda and censorship, the formation (and deformation) of national identity, the impact of technological and economic changes on culture, and changing gender roles. In addition, students will learn to think critically about the visual medium of film, becoming more engaged and critical spectators in a world saturated with the moving image. Class work includes some lecture but emphasizes guided discussions, group work, writing exercises, and some student presentations. The course is designed to be suitable for all students generally interested in German, or interested in various fields of humanistic study, whether or not they have previously studied the culture of Germany. This course is designed to count as General Education, as a GH “General Humanities,” and as an IL “International Cultures” course.

Changes Effective Summer 2019:

- Abbreviated Title
- Description
- Add General Education Designations GA and Inter-Domain

HIST 10: World History I (3 Credits) (IL) (BA) (GH)
Old Listing Effective Through Summer 2019:

Human origins; early civilizations; major political and intellectual developments on all continents; cultural interrelationships to 1500. HIST 010 Non-Western Civilization (3) (GH;IL)(BA) This course meets the Bachelor of Arts degree requirements. History 010 is an introductory survey of ancient history from the emergence of Homo Sapiens to the onset of European exploration (approximately 1500), examining the evolution of the world’s various peoples and cultures. The course will focus on the historical processes that led to human diversity, as expressed in varying patterns and systems of government, economics, arts, ideas, belief systems, and social organizations. The course will also treat the growth of agriculture and pastoral nomadism and explore global interactions and linkages, engendered by human migrations, the spread of commerce and disease, wars, and conquests up to 1500. Although the mode of delivery may vary, depending on the semester or session in which a specific section of the course is offered, its campus location, and the instructor’s major research specialization, the course will be taught thematically and conceptually. It will include individuals who have played a significant role in influencing the beliefs and institutions of a particular culture, or humanity in general, such as Moses, Confucius, Gautama (the Buddha), Plato, Alexander, Jesus, Muhammad, St. Francis of Assisi, al-Ghazali, Murasaki Shikibu, and Moctezuma. Students will learn about the interrelationships between dominant and nondominant cultures, such as the concepts of Roman imperialism, the tributary relationship between China and its neighbors, the Islamic concept of conquering lands without forcing conversion, the effects of the Mongol conquests, and the beginnings of Portuguese exploration and colonization. The course will make students more aware of the cultural achievements of the ancient Egyptians, Hebrews, Greeks, Romans, Persians, Indians, Chinese, Arabs, Turks, Mayans, and Japanese. Discussion sections (for high-enrollment classes) and essay examinations will promote student facility in written and oral self-expression, analysis, synthesis, comparison and contrast, and cultural empathy. History 010 instructors will, at their discretion, provide opportunities for gathering information from libraries, computerized indexes, and websites. Students will come to understand themselves and their own culture, as well as the background to many other societies and cultures in today’s world, through intellectual confrontation with the peoples and cultures of antiquity. Instructors will address issues related to civility, the individual’s role within the larger community, and academic honesty.

Changes Effective Summer 2019:

- Abbreviated Title
- Long Title
- Description

HIST 11: World History II (3 Credits) (IL) (BA) (GH)
Old Listing Effective Through Summer 2019:

Social, economic, and political evolution of societies and cultures from 1500 to the present. HIST 011HIST 011 World History II (3) (GH;IL)(BA) This course meets the Bachelor of Arts degree requirements. History 011 is an introductory survey of modern history from approximately 1500 to the present, viewing the world and its various peoples and cultures as a whole. This course will focus on the historical processes that have led to modernization, such as exploration, contacts among peoples and cultures, voluntary and forced migrations, the growth of technology and science, industrialization, urbanization, and other trends that have shaped the world since 1500. It will help students to develop facility in speaking and writing about continuity, change, causation, similarities and differences among cultures, universal and particular values, and conceptualization of modernity, through weekly discussion sections, essay examinations, short writing assignments, and selected readings. Its content is intrinsically international and intercultural, addressing overarching themes of ethnicity, race, religion, gender, and especially global perspectives. Approximately one-half of its content

Changes Effective Summer 2019:

- Description
- Abbreviated Title
- Long Title
HIST 20: American Civilization to 1877 (3 Credits) (US) (BA) (GH)
Old Listing Effective Through Summer 2019:

An historical survey of the American experience from its colonial beginnings through the Civil War and Reconstruction. HIST 020 American Civilization to 1877 (3) (GH,US)(BA) This course meets the Bachelor of Arts degree requirements. HIST 020 is designed to introduce students to the main events and themes of American history before 1877. This course is not intended to simply acquaint the student with facts, but to teach them how to analyze those facts so that they can understand why historical events in America unfolded as they did. A larger goal of the course is to teach them how to think "historically" and to perceive the relevance of the past to the present. It is impossible to understand either yourself or your society if you cannot identify the role, which your individual and collective past plays in the construction of your actions and thoughts today. The course provides the student with a basic background in American History prior to 1877. HIST 021 chronologically follows this course by providing the student with a background in American History from 1877 to the present. HIST 020 is a prerequisite for upper-division courses in American History, and is a required course for the History major. The course grade will be determined by an in-class midterm exam, an in-class final exam (each containing essay and short-answer sections), a five-page paper based on the analysis of a primary source, and participation in discussion sections. This course will be offered twice per year with 150 seats per offering.

Changes Effective Summer 2019:

- Description

HIST 21: American Civilization Since 1877 (3 Credits) (US) (BA) (GH)
Old Listing Effective Through Summer 2019:

An historical survey of the American experience from the emergence of urban-industrial society in the late nineteenth century to the present. HIST 021 American Civilization Since 1877 (3) (GH,US)(BA) This course meets the Bachelor of Arts degree requirements. History 021 is designed as the second half of a two-term survey of American history, covering the period from 1877 to the present. (History 20 covers the period from 1607 to 1877.) The course uses a lecture format; larger versions have weekly discussion sections as well, led by graduate assistants. In terms of historical knowledge, History 021 seeks to introduce students to salient events, developments, and themes of American history since 1877. Chief among the topics covered are Reconstruction, Westward expansion and the decline of the Native American, the industrial revolution, urbanization, immigration, Gilded Age culture and politics, the labor movement, the New South, Populism, imperialism, Progressivism, segregation and African-American response, the women's movement, World War I, politics and culture in the 'twenties, the Great Depression and New Deal, World War II, post-war prosperity, the Cold War, the Civil Rights movement, the Vietnam War, the disillusionment of the 'Seventies', the Reagan revolution, and America in the post-Cold War era. The social and ideological diversity of the American experience is a prominent theme of History 021. A survey textbook selected by the instructor is used, in conjunction with lectures, to provide a comprehensive overview. The textbook is supplemented by a blend of specialized historical works and primary readings. Students are evaluated on the basis of their performance on papers, exams, quizzes, and class participation and attendance. While History 021 instructors vary in the content and mix of work they assign (and the relative weight they give papers, exams, quizzes, and participation in the course grade), all versions share certain underlying objectives: to expose students to essential events and trends in American history; to develop their capacity to identify and analyze key themes and issues from the past; to give them some experience in the critical assessment of primary sources; and, to sharpen their skills in marshaling data and concepts from readings and lectures, and discussing them cogently both in section meetings and in writing. Increasingly, instructors are integrating multi-media components into their lectures. History 21 is the second half of a two-course survey of American history. History 020 is the first half, the year 1877 marks the dividing point between these two courses. Like History 020, History 021 provides a foundation (and is in fact a prerequisite) for many of the more advanced courses in American history. History 021 is a requirement for the major. Non-majors may use this course to satisfy a general education humanities selection. This course is offered three times a year with 140 seats per offering.

Changes Effective Summer 2019:

- Description

HIST 103: The History of Madness, Mental Illness, and Psychiatry (3 Credits) (IL) (BA) (GH)
Old Listing Effective Through Summer 2019:

This course will examine the ideas that have shaped European and American perceptions of madness, insanity, and mental illness. HIST 103 The History of Madness, Mental Illness, and Psychiatry (3) (GH,IL)(BA) This course meets the Bachelor of Arts degree requirements. This course will be an introduction to the modern history of "madness" in the Western world. In particular, we will examine the ideas that have shaped European and American perceptions of madness, insanity, and mental illness; the changing experiences of those afflicted; the development of those professions designed to look after those deemed mad, insane, and mentally ill; and the social and cultural assumptions behind treatments, policies, and public opinions. Our sources will include clinical case studies, memoirs of those living with mental illness, histories of psychiatric practice, and films. An example of the evaluation methods would be 3-4 written, in class exams, a 10-12 page research paper on a subject of choice, and class participation. The chief objectives of the course will be to confront head-on some of our most persistent assumptions about mental health and those with mental illnesses, evaluate how mental illness was understood and treated over the centuries, and become acquainted with the ways in which human biology, culture, society, and politics have reciprocally shaped one another in history. The course can be effectively linked to several courses offered within the Department of History, including HIST 122 and 123 (History of Science I and II) and HIST 422 (European Thought Since 1870). In addition, it will fulfill requirements for both history majors and minors. The substance of the course emphasizes competence in the interpretive and critical understanding of the values, ideas, and experiences associated with mental disability over history and across cultures also means that it meets requirements for both General Education in the Humanities as well as Intercultural/International Competence. It is hoped that students across the human, social, and natural sciences will enroll in the course.

Changes Effective Summer 2019:

- Description

HIST 110: Nature and History (3 Credits) (IL) (BA) (GH)
Old Listing Effective Through Summer 2019:

A broad introduction to the history of human relationships with nature throughout the world. HIST 110 Nature and History (3) (GH,IL)(BA) This course meets the Bachelor of Arts degree requirements. The human
relationship with the natural environment—the world of plants, animals, and microbes, of air, water, and land—is an important historical subject. History 110 provides a broad, thematic description and analysis of major global trends and shifts, with an emphasis on contemporary issues and problem solving. The most important goal of the course is to provide students with the historical context necessary to construct a thoughtful appreciation of the environmental dilemmas of our time. History 110 encourages students to break down the barriers that often divide the humanities and the sciences.

This course utilizes environmental science to demonstrate and explain specific human tendencies. Finally, this course, as is any in world history, is structured to at least diminish students’ American-centered view of both the past and environmental concerns.

Particularly in relation to contemporary environmental issues, we hope History 110 will make clear that many environmental problems are local in neither their construction nor impact. Ecology has contributed a great deal to historical understanding in terms of specific examples or case studies; however, it has also begun to reconstruct the overall structure of the history that we teach. History 110 seeks to exploit this new paradigm by following a topical organization that is structured around human modes of interaction with the environment. In Unit 1 the course borrows its structure from geography and the natural sciences. Students will be able to consider a wide range of human activity as well as to better comprehend similarities in ideas, ethics, and concepts from around the world and throughout history. In Unit 2 the course steps out of chronological limitations to embrace two topics that span human history. By studying such topics, of course, students may see change over time contextualized by a shared concern or resource. Unit 3 is designed to reinforce the global nature of the course and the concerns that we study within it. We will highlight interdependence by including issues that link students’ local environment with distant others. The lectures and discussions will focus on several critical points, including: How has the non-human world shaped the course of human history? What were the environmental impacts of historic changes in the ways humans produced and consumed resources? What ideas shaped the ways different groups of people defined and used specific resources? What role have science and technology played in changing popular attitudes about the human place in the world?

Changes Effective Summer 2019:
- Long Title
- Abbreviated Title
- Description

HIST 122: History of Science I (3 Credits) (BA) (GH)
Old Listing Effective Through Summer 2019:

A history of science and culture from pre-history until the Scientific Revolution. HIST 122 History of Science I (3) HIST 122 examines scientific endeavor from pre-history until the Scientific Revolution. Topics include ancient Babylonian and Egyptian conceptions of the universe and its relationship to human society, early Greek methods of understanding their world, and the development of science in the Western world and in other cultures. The course examines a range of theoretical and applied disciplines, including medicine and engineering. Along with key discoveries, the course emphasizes the role of cultural, political, and social forces in determining what human societies have valued as truth and knowledge and the standards and methods by which humans have offered proof of scientific knowledge.

Changes Effective Summer 2019:
- Abbreviated Title
- Description

HIST 123: History of Science II (3 Credits) (BA) (GH)
Old Listing Effective Through Summer 2019:

A history of science and culture from the scientific revolution to the present. HIST 123 History of Science II (3) HIST 123 examines the intellectual, social, and cultural history of science from the Scientific Revolution to the present. The course covers a range of theoretical and applied disciplines, including engineering and medicine. In addition to major discoveries and new ideas, methods, and tools, the course examines the effect of social conditions on science as well as the impact science has had on society. Scientific developments in the Western world, broadly defined, constitute the organizing framework of the course, but the course also examines science in non-Western cultures.

Changes Effective Summer 2019:
- Abbreviated Title
- Description

HIST 179: Latin-American History Since 1820 (3 Credits) (IL) (BA) (GH)
Old Listing Effective Through Summer 2019:

Origin, political growth, international relations, and economic status of the Latin-American republics, with emphasis upon present-day conditions. HIST 179 Latin-American History since 1820 (3) (GH;IL) (BA) This course meets the Bachelor of Arts degree requirements. This course focuses on Latin America (with limited coverage of the Caribbean) from the early 1800’s through the present. For the colonial period (c.1500-c.1820), it is easy to see why Latin America has a “common history,” as most of it was ruled by two quite similar countries, Spain and Portugal. But after the colonial system collapsed, giving rise to over a dozen independent countries by the 1830s, the issue becomes more complicated. What do these dependence upon markets in developed countries for their economic prosperity? How can we explain the continuing similarities between these countries, without losing sight of their diversity? The approach of this course is broadly chronological, but for each period we will focus on one or more countries that illustrate (however imperfectly) the trends of the period. The goal of the course is not to provide an encyclopedic knowledge of Latin America, but rather to provide a framework for understanding how current issues are rooted in past historical processes, and to offer a better sense of how key historical themes are “lived” by ordinary people in Latin American society. A related goal of the course is to acquaint students with the historiography of Latin America: the different approaches that historians have used to understand the region. Students will be evaluated on two sets of essay exams and a paper, as well as participating in classroom discussion. HIST 178 and 179 are both requirements for the Latin American Studies Major and Minor, as well as satisfying general credit requirements for the History Major.

Changes Effective Summer 2019:
- Long Title
- Abbreviated Title
- Description
- Add B.A. Other Cultures Designation
INTAG 100: Introduction to International Agriculture (3 Credits) (IL) (BA) (GS)
Old Listing Effective Through Summer 2019:
Ag in developing countries; contemporary crucial issues in global agriculture; emphasizing hunger and food security. INTAG 100 Introduction to International Agriculture (3) (GS;IL)(BA) This course meets the Bachelor of Arts degree requirements. This course focuses on agriculture in developing countries and frames this focus with a discussion of contemporary crucial issues facing agriculture on a global scale, emphasizing global hunger and food security. The primary goal of the course is to inform students about international agriculture, challenging them to think critically and independently about agricultural issues and development, to generate global citizens who are more aware and conversant on important contemporary challenges in the global food, agriculture, and natural resource systems. The objectives of this course are to acquaint students with: (1) the range of cutting edge issues that play an important role in international agricultural development; (2) information and conceptual frameworks of ongoing multi-faceted debates concerning the global food, agriculture and natural resource systems; (3) the social, cultural and ecological systems that shape human decisions about land use in various areas of the world. This class will primarily focus on agriculture in developing countries and frame this focus within a discussion of contemporary crucial issues facing food, agriculture and natural resources on a global scale. Specific emphasis will be placed on debates concerning global hunger and food security. Several examples from around the world will be included. Class will take a variety of formats, including formal lectures from INTAG 100 staff and guest lecturers, videos, lab and site visits, student presentations and class discussion time. The course is part of the International Agriculture minor, and satisfies two General Education requirements. Evaluation consists of group presentations, short papers and exams. The course is offered once every academic year.

Changes Effective Summer 2019:
• Abbreviated Title
• Description

IT 130: Italian Culture and Civilization (3 Credits) (IL) (BA) (GH)
Old Listing Effective Through Summer 2019:
Italian life from antiquity to the present; literature, film, the arts, and contemporary problems in historical perspective. IT 130 Italian Culture and Civilization (3) (GH;IL)(BA) This course meets the Bachelor of Arts degree requirements. The course aims to develop critical and analytical skills of undergraduate students. It is an Intercultural/International Competence course dealing thoroughly with ethnicity, religion, and global perspective as it pertains to Italian culture and civilization. The course traces, among other themes, the importance of the Roman Empire, the Catholic Church, the Renaissance, presence and contributions of the Roman Catholic Church, the Italian Renaissance, and Italian immigration, artistic patrimony, and culinary contributions. Historical texts used will emphasize the social history of Italians that portrays the continuous processes of adaptations through the ages. Consideration will be given to the various representative Italians such as Dante, Da Vinci, Machiavelli, St. Francis, St. Clare, Fellini, and Fermi. We will read novels and analyze films that depict aspects of Italian thought and culture from religion to politics.

Changes Effective Summer 2019:
• Abbreviated Title
• Description

KINES 29: Golf I (1-1.5 Credits) (GHA)
Old Listing Effective Through Summer 2019:
A course designed to give students an understanding of and a proficiency in golf skills, rules, and etiquette. KINES 029 Golf I (1.0-1.5) (GHA) Kinesiology 029 is a course designed to give students the understanding, knowledge and skills to begin an exploration of the game of golf. While the course is designed to teach the student the game of golf, the skills and techniques will be developed in short and mid-irons. Perhaps the most unique feature of Golf I is the weekly on course practice. Each week during this course, students will get a chance to apply the skills they have learned during the week on an actual golf course. This practice time is in a situation where only the students from the class are on the course. This situation creates an ideal practice area for the student golfer to be come acquainted situational application of golf skills. Students who enroll in Kinesiology 029 will find, in the game of golf, a unique form of self-expression. The daily “movement problems” that students will encounter offers a new type of information gathering process accompanied by unusual opportunities to synthesis
that information into a “golfing personality”. The development of motor skills will complement students’ oral and written capabilities. The active lifestyle requires that the participant be able to gather, synthesize and analyze information. Students in Kinesiology 029 will be asked to involve themselves in Web and CD-ROM based assignments to gather, synthesize and analyze valuable information about golf’s rules and etiquette, equipment, and travel planning. Students will be evaluated by a combination of (but not limited to) evaluation techniques. Examples of those techniques are written examinations, skills testing, written papers and subjective evaluation of skill level and game performance. The student, who successfully completes Kinesiology 029, Golf I will possess a command of basic golf rules, golf terminology and golf etiquette. These basic fundamentals will ease the transition from golf student to golfer. Students will find that, after completion of Golf I the work done in this course will prepare them for actual participation in the game of golf.

Changes Effective Summer 2019:

- Description

KINES 62: Introduction to Cardiovascular Activities (1.5 Credits) (GHA)
Old Listing Effective Through Summer 2019:

A course designed to give students an introduction to various types of cardiovascular training. KINES 062 Introduction to Cardiovascular Activities (1.5) (GHA) Kinesiology 062 has been designed to help students become acquainted with and proficient in many types of cardiovascular activities that can be used as part of a lifelong exercise program. Students should expect to participate in a variety of activities such as, but not limited to, walking/jogging, cycling, aquatics, aerobic dance, and cardiovascular exercise machine use.

Additionally, students will have an opportunity to learn skills necessary to create safe cardiovascular exercise programs while considering safety and injury prevention. Kinesiology 062 is taught in a modular format including three to five separate types of cardiovascular exercise being chosen for the course content for the semester. Students will know which courses have been selected by listings in the semester Directory of Classes. Kinesiology 062 will provide a unique balance of training guidelines that can be applied to the various activities one pursues throughout life. Fundamental guidelines for safe exercise, progression, self-monitoring, etiquette, and injury prevention will be introduced throughout the course. Cardiovascular activities serves as a stepping stone to lifetime physical fitness and disease prevention. Self-and group-paced activity will allow for each individual to maximize the benefits of exercise. Various evaluation techniques will be used to assess progress in Kinesiology 062. These techniques will include, but are not limited to, written examinations, performance assessments, and improvement-based evaluations of cardiovascular endurance and strength.

Changes Effective Summer 2019:

- Abbreviated Title
- Description

KINES 367: Games and Sports Instruction Across the Lifespan (1 Credit)
Old Listing Effective Through Summer 2019:

How to understand, perform and deliver individual and team games and sports across the lifespan. This course is designed to provide students with the opportunity to research, experience, and reflect upon the content knowledge necessary to successfully instruct and coach a variety of individual and team games and sports across the lifespan. Students will gain experience in at least one activity from each of the four games classification groups (net and wall, invasion, striking and fielding, and target games). Students will develop the knowledge and skills necessary to instruct and coach various lifetime individual and team games and sports. The games and sports chosen for this course (basketball, soccer, golf, softball, and tennis) have been specifically selected for three reasons related to lifespan development and participation. First, they are consistently included in preschool through 12th grade school physical education curriculums. Second, they are popular extra-curricular activities, which are heavily attended by young people and adolescents. Finally, they represent popular adult recreational (pick-up games) and competitive activities (adult leagues) that are often continued over the lifespan. Emphasis is placed on the student’s competency in being able to effectively instruct and perform across multiple individual and team games and sports. Students will be expected to practically demonstrate a range of psychomotor techniques and skills for each given game and sport to a high level. Students will also need to display competence in a range of cognitive, affective and behavioral domain skills. This includes the ability to make appropriate game play decisions, communicate with teammates, understand and adhere to governing body rules/regulations and creating strategies to promote lifelong participation. Students will be assessed on their ability to instruct and coach the associated psychomotor skills, principles of play, and the official rules and regulations operated by each game or sport’s governing body in a peer-to-peer instructional setting. Practical activity learning experiences are designed to provide students with a sound knowledge of the concepts associated with skill acquisition including the class/team/client structure and organization, teaching and coaching techniques, and developmentally appropriate activities. Peer to peer instructing and coaching sessions will be used as an instructional strategy.

Prerequisite Courses: KINES 267

Changes Effective Summer 2019:

- Prerequisite/Corequisite/Concurrent Courses

KINES 368: Individual Fitness and Wellness (2 Credits)
Old Listing Effective Through Summer 2019:

How to perform and deliver fitness and wellness concepts and exercises to individuals across the lifespan. The purpose of this course is to teach students how to effectively communicate, motivate, and engage individuals in fitness improvement exercises and activities across the lifespan (children, young adults, adults, and older adults). Understanding client management skills, various fitness environments, and specific individual fitness exercises and activities from the foundation of the course. Initially, students will learn appropriate and effective client management skills and will explore different instructional environments. Throughout the course, students will work on acquiring skills for developing progressions of exercises across the lifespan. The students will become familiar with contemporary fitness practices and exposed to a variety of exercises. Students will learn the associated execution cues and how to demonstrate the exercise. Students will apply content knowledge to instructing individuals how to properly engage in fitness exercises and activities that contribute to one’s overall wellness. Students will be able to organize and execute a developmentally appropriate fitness program for a client that targets one or more of the components of fitness including: cardiovascular, muscular strength, agility, power, coordination, and flexibility. The primary objectives of the course are to develop an understanding of how to create an individualized fitness program that is appropriate for the individual and how to interact
with the individual to promote engagement in regular exercise and activity and successful achievement of goals. Students will examine how the age and developmental level of the individual relates to ability and individual fitness programming. Students will learn the correct form of exercise execution and progressions of exercises. Content knowledge is integrated with application of skills in fitness exercise and instruction and will be put to use in a learning laboratory setting which students will have the opportunity to engage in hands-on instructional experiences.

Prerequisites: KINES 200, KINES 201

Changes Effective Summer 2019:

• Prerequisite/Corequisite/Concurrent Courses

KINES 395G: Practicum in Athletic Training (3 Credits: Maximum of 3 Credits)

Old Listing Effective Through Summer 2019:

KINES 395G Practicum in Athletic Training (3) This course is designed to provide students didactic and practical clinical experiences in a variety of practice settings in which certified athletic trainers are commonly employed. This is the second clinical assignment after a student is admitted to the Athletic Training option within the Kinesiology major. Students will complete a minimum of 200-250 clock hours under the supervision of a certified athletic trainer in a variety of clinical settings. These settings include but are not limited to: outpatient sports medicine clinics, interscholastic athletic settings, and intercollegiate athletic settings. The objectives of this course include demonstrating proficiency in: assisting lower level students in developing athletic training skills and mastering level-appropriate competencies; demonstrate proficiency in evaluation and documentation of common athletic injuries; assist in the development and documentation of a plan of care for common athletic injuries; demonstrate proficiency in the development and documentation of clinical progression through a plan of care; participate in the application of therapeutic modalities and therapeutic exercise under the supervision of a certified athletic trainer. In this practical experience, the student is required to demonstrate an understanding of the classroom experiences completed to date and as required by the program option up to the current semester. This practicum has a prerequisite requirement of KINES 395F and is a prerequisite for the subsequent athletic training practicum, KINES 395I. Assessment is based on student performance written examinations, practical examinations, written assignments, and performance assessments by supervising athletic trainer(s). The course is designed to be taken the second semester following admittance to the athletic training option. It is offered every fall and spring semester with an enrollment of 15-20 students.

Changes Effective Summer 2019:

• Abbreviation to ATHTR
• Number to 495G
• Abbreviated Title
• Long Title
• Description
• Prerequisite/Corequisite/Concurrent Courses

KINES 438: Administration and Issues in Athletic Training (3 Credits) (WF)

Old Listing Effective Through Summer 2019:

Theoretical and practical aspects for management of an Athletic Training professional practice and identifying contemporary issues related to the profession. KINES 438W Administration and Issues in Athletic Training (3) This course is designed to instruct students in the concepts and skills required for successful administration of an athletic training program and to understand and discuss contemporary professional issues attendant to the Athletic Training profession. General topics to be covered include theoretical basis of management, program management, human resource management, financial resource management, facility design and planning, information management, athletic injury insurance, legal aspects of sports medicine, ethical considerations in sports medicine, preparticipation physical and drug-testing, professional preparation issues, professional practice issues, and clinical practice issues.

Experts from the community are brought in to lecture on several of the topics. The course meets for three hours per week and utilizes both lecture and discussion formats. Student assessment includes written examinations, written homework assignments, class participation and debates. This is a writing intensive course. Writing will be used to facilitate critical thinking about course material.

Written assignments are based on the technical writing requirements of an athletic training administrator and are graded on both their content and quality.

Changes Effective Summer 2019:

• Abbreviation to ATHTR
• Number to 438W
• Abbreviated Title
• Long Title
• Description
• Prerequisite/Corequisite/Concurrent Courses

LARCH 60: History of Design on the Land (3 Credits) (US) (IL) (BA) (GA)

Old Listing Effective Through Summer 2019:

A survey of the historical development of outdoor space in relationship to allied arts from early beginnings to this century. LARCH 060 History of Landscape Architecture (3) (GA)(BA) This course meets the Bachelor of Arts degree requirements. LARCH 060 is an introductory survey course of the historical development of designed outdoor space in relationship to the allied arts from early beginnings to present day. Although the profession of architecture was not named until 1858, with the award-winning design of Central Park by Frederick Law Olmsted and Calvert Vaux, the art of design on the land has been practiced since the beginning of time. It is the creation of human environments, inevitably expressing the creator’s perception of the relationship between humanity and nature. As with all art, the design of outdoor spaces reveals a culture’s beliefs, values, and aspirations. If one studies design in different cultures and time periods, one can learn a great deal about that society. One can also begin to see history holistically, to detect trends, to relate yesterday to today, and to question the present and future. In the course we explore the outdoor spatial designs of history, with emphasis upon what these designs reveal about cultural attitudes toward nature, humanity and art. While we will address middle and far-eastern landscapes, the course focuses upon western civilizations with the second half focusing on American landscapes. The objective of this course is to present a concise analysis of the design of outdoor space with special emphasis on American design from 1800 to date. It is hoped that students will gain an increased awareness of landscape architecture as an art, and of their own built environment as a product of cultural values. Grades are based upon three examinations: two during the course and one during final exam
period. Each examination is worth 33 1/3% of your final grade. Each exam will consist mostly of multiple-choice questions some of which may be based on slides; there may also be short answer questions. The specific format will be announced prior to each exam. Both lecture content and reading packet material will be covered on the exams. Computer tutorials are available and designed to aid in your understanding of the reading packet. As well, the lectures are taped and are available for review through the University’s Classroom Recording unit. To further aid you in understanding course content, a study guide will be posted every week at the web address.

Changes Effective Summer 2019:

• Description
• Abbreviated Title
• Long Title

MATSE 201: Introduction to Materials Science (3 Credits)
Old Listing Effective Through Summer 2019:

Concepts of relationships between structure and thermal, optical, magnetic, electrical, and mechanical properties of metals, ceramics, glasses, and polymers.

Prerequisites: MATH 231 or CHEM 112

Changes Effective Summer 2019:

• Prerequisite/Corequisite/Concurrent Courses

MATSE 400: Crystal Chemistry (3 Credits)
Old Listing Effective Through Summer 2019:

Principles of crystal chemistry applied to structures, structural defects and properties of organic, inorganic, intermetallic, and metallic crystals.

Changes Effective Summer 2019:

• Prerequisite/Corequisite/Concurrent Courses

MATSE 419: Computational Materials Science and Engineering (3 Credits)
Old Listing Effective Through Summer 2019:

Introduction to computational material science and engineering. Overview of the computational methods for materials, from atomistic to the continuum scale. MATSE 419 Computational Materials Science and Engineering (3) Modeling is a critically important tool in the field of materials. This course is designed to inform students about all areas of materials modeling, and to explore the use of modeling in different research areas. This is a hands-on undergraduate level course, mandatory for all MATSE students, covering current methods for modeling soft and hard matter, at the atomistic, meso and continuum scale levels. It consists of an overview of individual techniques of modeling from atomistic molecular dynamics and Monte Carlo, coarse-grained molecular dynamics, and multiscale modeling, to the continuum (e.g. SAFT, CALPHAD). It also includes a computer laboratory component with hands-on exercises. At the conclusion of the course, students will understand the physical basis and basic procedures of each technique.

Students will be able to understand the general literature in modeling and its connection with experimental work, as well as to communicate with experts in the field. From the laboratory practices, they will learn how the individual modeling techniques contribute to knowledge in each area, and to interconnect them with experimental information.

Prerequisites: CMPSC 200

Changes Effective Summer 2019:

• Prerequisite/Corequisite/Concurrent Courses

MATSE 436: Mechanical Properties of Materials (3 Credits)
Old Listing Effective Through Summer 2019:

Fundamental relationships between structure and mechanical behavior of materials. MATSE 436 Mechanical Properties of Materials (3) The topics covered in this course are essential to students in the Materials Science and Engineering options, and these are also required for materials engineering courses nationally accredited by the professional societies. The course is taught at the 400 level because it requires the fundamental courses in mathematics and physics to be completed. The course also requires completion of an introductory course in materials science. This new course typically fits into the junior or senior year, when students in the major are understanding how the properties of materials can be changed by controlling the structure of materials. The course has also been designed such that students in other engineering majors can take this course as a technical elective. Some of the information in this course is used in laboratory courses for the major. The course is not required as a prerequisite for other courses.

Prerequisites: MATH 231, MATH 250 or MATH 251, MATSE201 or MATSE259, PHYS 211 or ESC 314

Changes Effective Summer 2019:

• Prerequisite/Corequisite/Concurrent Courses

MATSE 441: Polymeric Materials I (3 Credits)
Old Listing Effective Through Summer 2019:

Manufacture of industrially significant polymers together with discussion of their major chemical, physical, and mechanical properties. MATSE 441 Polymeric Materials I (3) This 3-credit course focuses on about 40 commercially most important polymers together with the discussion of synthesis routes, industrial production processes, processing methods, physical and chemical properties, and applications.

Prerequisite: CHEM 210, MATH 231

Changes Effective Summer 2019:

• Description, Prerequisite/Corequisite/Concurrent Courses

MATSE 471: Metallurgy Laboratory I (1 Credit)
Old Listing Effective Through Summer 2019:

A laboratory integrating experimental aspects of material contained in MATSE 402, 413, and 410, e.g. phase diagram determination, solidification micro-structures, etc. MATSE 471 Metallurgy Laboratory I (1) This course is largely an introduction to basic laboratory characterization techniques (optical microscopy, scanning electron microscopy, image analysis, hardness testing, thermal analysis). However, it also applies those characterization techniques in the context of Design of Experiments. This laboratory class also contains significant drills in technical writing.

Prerequisites: MATSE 430
Changes Effective Summer 2019:

- Prerequisite/Corequisite/Concurrent Courses

**MKTG 344: Buyer Behavior (3 Credits)**

Old Listing Effective Through Summer 2019:

Application of behavioral science concepts to the understanding of buyer behavior as a basis for strategic decisions in marketing management. MKTG 344 Buyer Behavior (3) This course will acquaint students with the field of consumer behavior and its major concepts, research techniques, and research findings. Consumer behavior is presented as an actionable and strategic discipline. Students will be exposed to individual and psychological factors, as well as the social and cultural factors, that influence consumer behavior.

Changes Effective Summer 2019:

- Number to 444
- Title
- Description
- Prerequisite/Corequisite/Concurrent Courses

**NURS 200M: Understanding and Applying Nursing Research – Honors Section (3 Credits) (H) (WF)**

Old Listing Effective Through Summer 2019:

Introduction to methods and philosophy of empirical inquiry as applied to research in nursing and application to practice. NURS 200M Understanding and Applying Nursing Research – Honors Section (3) As an introductory research course NURS 200M will offer a broad survey of nursing research using multiple, active learning strategies. Students will be expected to come to class having completed the required readings so that they are ready for deeper intellectual engagement with the topics. Students will work individually and in cooperative learning groups on weekly projects inside and outside of class time, complete reflective journaling to enhance meta-cognition, and be expected to analyze and discuss nursing research from multiple viewpoints with a focus on integrity, global perspectives, and leadership in nursing research. To guide the student towards greater personal responsibility for their learning, NURS 200M will use a “blended?” format of live and web-based course work. During the semester, each Honors student will identify an evidence based practice topic that could potentially lead to an undergraduate thesis to study in depth. For the rest of the semester, every in-class and out-of-class assignment will be tailored to their topic. The students will be taught how to conduct a peer review and then will practice this in formative review sessions on their peer’s projects. NURS 200M will culminate with the development of evidenced based practice paper which will be delivered to their peers as they would at a scientific meeting. This paper will also serve as the first draft of their thesis proposal.

Changes Effective Summer 2019:

- Long Title
- Abbreviated Title
- Description

**NUTR 360: Disseminating Nutrition Information (3 Credits)**

Old Listing Effective Through Summer 2019:

Theory and practice of providing nutrition information across the lifespan. Open only to Health and Human Development majors.

Changes Effective Summer 2019:

- Abbreviated Title
- Long Title
- Description
- Prerequisite/Corequisite/Concurrent Courses

**NUTR 371: Dietetic Internship Application Development (1 Credit)**

Old Listing Effective Through Summer 2019:

Provides Dietetic Option majors with techniques and information to specify and implement post-graduation educational and career plans in dietetics. NUTR 371 Dietetic Internship Application Development (1) This course is designed to assist students with the critical thinking skills required to prepare and implement post-graduate educational plans required to progress in the field of nutrition and dietetics. Students wishing to become dietitians must apply to and be selected for a professional practice experience also known as a dietetic internship following graduation. The process is competitive, complex and requires self awareness of professional strengths and weaknesses as well as knowledge of the individual characteristics and objectives of specific dietetic internships. Through group lecture and discussion, this course will introduce students to this process and help them with the research skills needed to clarify their goals. Students will then meet individually with faculty to discuss their goals and objectives and the internships they would like to apply to.

Students will complete an internship application for at least one of the internships they plan to apply to. They will develop a professional portfolio to assist them in presenting their skills and expertise to potential employers or internship directors. These portfolios are expected by most internship directors during interviews for internship positions. Students will develop a personal statement or letter of intent appropriate for at least one of the internships the student is planning to apply to. Through individual meetings with faculty the student will clarify the message of professional accomplishments and goals in the statement. The student will be assisted with preparation for the interview process. Students will also become familiar with alternative career options should they not receive a match as anticipated.

Prerequisite: senior standing in Nutritional Sciences or Hotel Restaurant and Institutional Management; Concurrent: NUTR 370

Changes Effective Summer 2019:

- Number to 393
- Abbreviated Title
- Description
- Prerequisite/Corequisite/Concurrent Courses

**NUTR 446: Nutrient Metabolism II (3 Credits)**

Old Listing Effective Through Summer 2019:

Continuation of NUTR 445; nutrients, their sources, metabolism, inter-relationships and requirements with focus on vitamins and minerals.

Prerequisites: NUTR 445

Changes Effective Summer 2019:

- Long Title
- Abbreviated Title
• Description
• Prerequisite/Corequisite/Concurrent Courses

NUTR 451: Nutrition throughout the Life Cycle (3 Credits)
Old Listing Effective Through Summer 2019:

Application of basic principles of nutrition to nutritional and physiological needs throughout the life cycle from prenatal to aging.

Prerequisite: NUTR 358, NUTR 445. Prerequisite or concurrent: NUTR 446

Changes Effective Summer 2019:
• Description
• Prerequisite/Corequisite/Concurrent Courses

NUTR 452: Nutritional Aspects of Disease (3 Credits)
Old Listing Effective Through Summer 2019:

Disturbances in metabolism related to human disease processes; principles of nutrition in therapy.

Prerequisites: NUTR 446

Changes Effective Summer 2019:
• Description
• Prerequisite/Corequisite/Concurrent Courses

NUTR 490: Nutrition Seminar (3 Credits) (WF)
Old Listing Effective Through Summer 2019:

Use of selected materials from the scientific literature to prepare a term paper and an oral report.

Prerequisite NUTR 452

Changes Effective Summer 2019:
• Number to 490W
• Description
• Prerequisite/Corequisite/Concurrent Courses

PHIL 10: Critical Thinking (3 Credits) (BA) (GH)
Old Listing Effective Through Summer 2019:

Discussion of the validity, soundness, and fallacies of everyday language use and reasoning; informal logic; and manipulative arguments and propaganda. PHIL 010 Critical Thinking (3) (GH)(BA) This course meets the Bachelor of Arts degree requirements. This course is designed to bring students to a critical awareness of the function of argumentation in the various forms it takes, both in the academic realm of logic, as well as the everyday world of television, newspapers, and other forms of communication. Students will examine how arguments are constructed and the means that are used to make an argument convincing. They will learn to critically analyze arguments in order to detect careless language use and fallacies. They will also learn various types of arguments. Students will be graded on weekly problem-solving homework assignments and re-writes, collaborative fallacy presentations, a midterm exam, and a comprehensive final exam. PHIL 010 satisfies the GH requirement and it may be used to fulfill minor requirements in philosophy. This course is offered once a year with an enrollment of 25-50 students.

Changes Effective Summer 2019:
• Description
• Abbreviated Title
• Long Title

PLANT 220: Gardening for Fun and Profit (3 Credits) (GN)
Old Listing Effective Through Summer 2019:

Fundamentals of designing, planting and maintaining residential landscapes and edible gardens for students with minimal/intermediate horticulture knowledge. PLANT 220 Gardening for Fun and Profit (3) (GN) The objective of PLANT 220 (GN), Gardening for Fun and Profit is to provide students with science-based fundamentals of establishing and maintaining residential landscapes and edible gardens. The course provides information that is especially useful to those with minimal to intermediate knowledge of horticultural plants. A background in gardening or landscaping is not needed. Class topics are presented by guest speakers who are scientists and experts in the topic area. Major topics include proper plant selection, soil preparation for establishing plantings, the basics of seeding, growing transplants and planting, the basics of planting and maintaining trees and shrubs, avoiding common mistakes in the garden and landscape, gardening resources, storage and processing fruits and vegetables for home use and ideas for making profit from gardening activities. This course includes a weekly laboratory session where students gain practical skills needed for developing and maintaining residential landscapes and edible gardens through hands-on activities and field trips.

Changes Effective Summer 2019:
• Abbreviated Title
• Description

PLSC 177: Politics and Government in Washington DC (1-3 Credits) (BA) (GH)
Old Listing Effective Through Summer 2019:

The course centers on a Spring Break trip to Washington DC, with students meeting on campus before and after the trip. PLSC 177 Politics and Government in Washington DC (1-3) This course centers on a Spring Break trip to Washington DC, where students will meet with their members of Congress, get briefings at foreign embassies and international organizations, meet with leaders of federal government agencies, participate in seminars led by interest groups and political party officials and consultants, and tour government offices and facilities. The class will meet before the trip to discuss the history, culture, and context of politics and government in the capital city of the United States and will continue to meet after the trip so that students can analyze what they have learned about politics and government in Washington as a result of their experiences during the trip. The course is open to and appropriate for students in all majors.

Changes Effective Summer 2019:
• Number to 177N
• Description
• Add General Education Designations GH and Inter-Domain
• Add B.A. Humanities Designation

TURF 425: Turfgrass Cultural Systems (3 Credits)
Old Listing Effective Through Summer 2019:
A study of turfgrass maintenance practices and how their interrelationships can be utilized to develop management systems. TURF 425 Turfgrass Cultural Systems (3) TURF 425 is offered to students that are in their final year of the turfgrass science major. They are expected to use the information provided in the course and previously learned agronomic principles and concepts, to develop management and problem solving skills. More in depth information pertaining to various management systems are presented which expands upon prerequisite course content Students are expected to be able to integrate different turfgrass maintenance practices into sound management strategies that lead to the production of high quality turfgrass areas. The management compromise between aesthetic quality and functionality is stressed and students are challenged to recognize those cultural practices that influence the balance between the two. There are three 100 point exams during the semester. The majority of the content in each exam will come from the information provided since the previous one. Several unannounced quizzes will be given throughout the semester (usually 12 to 13 with only the 10 best counting toward the grade). A soil testing exercise is also included whereby the student is expected to take an appropriate sample from a site of their choosing submit it to the soil testing lab interpret the soil test results, and make a written recommendation based upon the results. The course will help the student better understand how the maintenance practices and pest control programs learned in other courses inter-relate in the overall management scheme for a given turfgrass site. It will also prepare them for TURF 436 (Case Studies) where they will be expected to work in teams in problem solving situations. The facilities provided in ASI building, associated greenhouses, and the turfgrass field research plots as well as the campus grounds provide ample support for the effective delivery of the course.

Changes Effective Summer 2019:

- Abbreviated Title
- Description

Program Changes

Advertising/Public Relations, B.A. (ADPR_BA)
Effective April 12, 2018:

- Strategic Communications Option Placed on Enrollment Hold: Not Accepting New Students.

Agribusiness Management, B.S. (AGBM_BS)
Effective Summer 2018:

- Moved MIS 204 from Prescribed Courses to Additional Courses.
- Added AGBM 170, IST 110, and SRA 111 to Additional Courses.

Anthropology, B.A. (ANTH_BA)
Effective Fall 2018:

- Revised Additional Courses Area.
- Increased Electives.
- Changed Requirements for the Major to 37 credits.

Archaeological Science, B.S. (ARSCI_BS)
Effective April 12, 2018:

- Program Placed on Enrollment Hold: Not Accepting New Students.

Athletic Training, B.S. (ATHTR_BS)
Effective Fall 2018:

- Revised Entrance to Major Requirements.
- Removed KINES 141 from Additional Courses.

Biological Anthropology, B.S. (BANTH_BS)
Effective April 12, 2018:

- Program Placed on Enrollment Hold: Not Accepting New Students.

Computer Engineering, B.S. (Engineering) (CMPEN_BS)
Effective Summer 2018:

- Moved CMPSC 121 and CMPSC 122 from Prescribed Courses to Additional Courses.
- Removed EBF 200 from Additional Courses.
- Added CMPSC 131 and 132 to Additional Courses.

Corporate Innovation and Entrepreneurship, B.S. (CIENT_BS)
Effective Summer 2018:

- Revised Entrance-to-Major Requirements.
- Revised Degree Completion Requirements.
- Revised Program Description.
- Removed MGMT 451 from Prescribed Courses.
- Added MGMT 427W to Prescribed Courses.
- Added MGMT 365, MGMT 420, MGMT 480, MGMT 485, and MGMT 486 to Additional Courses.

Dance, B.S. (DANCE_BS)
Effective June 12, 2018:

- Program Placed on Enrollment Hold: Not Accepting New Students.

Deafness and Hearing Studies, Minor (DHS_UMNR)
Effective Fall 2018:

- Removed CSD 495B from Supporting Courses and Related Areas.
- Added SPLED 403A and 403B to Supporting Courses and Related Areas.

Enterprise Resource Planning with SAP, Certificate (SAPBC_UCT)
Effective Fall 2018:

- Revised Program Description.
- Removed SCM 465 and MIS 304 from Required Courses.
- Added MIS 404 to Required Courses.

Japanese Language, Minor (JAPNS_UMNR)
Effective Spring 2019:

- Increased the Requirements for the Minor from 18 to 18-20 credits.
- Removed JAPNS 296, 297, 421, 422, 423, 424, 425, 426, and 450 from Additional Courses.
- Added JAPNS 430, 431, 432, 433, and 434 to Additional Courses.

Information Sciences and Technology/Finance, Minor (ISFIN_UMNR)
Effective Fall 2018:
• Removed FIN 302, 406, 407, 408, 409, 427, 456, 496, and 497 from Additional Courses.

Landscape Contracting, B.S. (LSCPE_BS)
Effective Fall 2018:
• Moved BA 250, BLAW 243, and MATH 26 to Additional Courses for the Major.
• Added BA 241, 242, 243, 303, 304, HORT 455, MATH 40, 41, and 140 to Additional Courses for the Major.
• Added SOILS 401 to Prescribed Courses for the Management Option.
• Removed SOILS 402 and SOILS 404 from Additional Courses for the Management Option.

Management, B.S. (Harrisburg) (MNGMT_BS)
Effective Fall 2018:
• Removed MGMT 466 from Prescribed Courses.
• Added MGMT 420 to Prescribed Courses.
• Removed MGMT 450 from Additional Courses.
• Added MGMT 441 to Additional Courses.

Meeting and Event Management, Certificate (MEMC_UCT)
Effective Fall 2018:
• New undergraduate certificate added.

Physical Therapist Assistant, A.S. (2PTA_AS)
Effective Spring 2019:
• Revised Entrance to Major Requirements.
• Revised Program Description.
• Increased Requirements for the Major from 68 to 70 Credits.
• Added PT 120 and 285 to Prescribed Courses.
• Add HDFS 129, PSYCH 270, PT 271, 272, 271W, 281 to Additional Courses.

Recreation, Park, and Tourism Management, B.S. (RPTM_BS)
Effective Spring 2019:
• Revised Program Description.
• Removed Commercial and Community Recreation Management Option.
• Added Commercial Recreation and Tourism Management Option and Community Recreation Management Option.
• Increased the Requirements for the Major from 65-70 to 67-74 Credits.
• Removed RPTM 101, 356 and 460 from Prescribed Courses for the Major.
• Added RPTM 220, 390 and 456 to Prescribed Courses for the Major.
• Removed Additional Courses for the Major.
• Added RPTM 100S, 295A, 360, 395B, 495B, 495C, and 495D to Prescribed Courses for the Professional Golf Management Option.
• Moved HM 336, 466, TURF 100 and BLAW 243 from Prescribed Courses to Additional Courses in the Professional Golf Management Option.
• Removed HM 318, MGMT 100, RPTM 210, 360, and 415 from Prescribed Courses for the Professional Golf Management Option.
• Added ACCTG 211, HM 335, STAT 100 and STAT 200 to Additional Courses for the Professional Golf Management Option.
• Removed RPTM 470 and 480 from Prescribed Courses for the Outdoor Recreation Management Option.
• Added RPTM 101, 325, and 330 to Prescribed Courses for the Outdoor Recreation Management Option.
• Added CAS 283 and CMPSC 203 to Additional Courses for the Outdoor Recreation Management Option.

Science, B.S. (Altoona) (SCIAL_BS)
Effective May 11, 2018:
• Program Placed on Enrollment Hold: Not Accepting New Students.

Security and Risk Analysis, B.S. (SRA_BS, SRAAL_BS, SRABK_BS, SRACA_BS)
Effective Summer 2018:
• Revised Program Description.
• Moved SRA 311 from Prescribed Courses for the Major to Prescribed Courses for the Information and Cyber Security Option.
• Moved CMPSC 101 from Prescribed Courses to Additional Courses for the Major.
• Added ECON 104, GEOG 128, IST 140, CMPSC 121, MATH 22, 26, 40, 41, 110 and 140 to Additional Courses for the Major.
• Removed GEOG 40 from Additional Courses for the Major.
• Removed Supporting Courses Area for the Major.
• Moved IST 440 from Prescribed Courses to Additional Courses for the Major.
• Added SRA 440W to Additional Courses for the Major.
• Added SRA 268, 311W, IST 452 and SRA 440W to Prescribed Courses for the Intelligence Analysis and Modeling Option.
• Removed ECON 302 from Prescribed Courses for the Intelligence Analysis and Modeling Option.

FAQs
1. Where can I find a list of General Education courses and information about requirements?
   • For information about General Education requirements, please see the General Education (http://bulletins.psu.edu/undergraduate/general-education) section in this Bulletin.
2. The General Education requirements have changed. Do the new requirements apply to me?
   • The new General Education requirements apply to students who start at Penn State in Summer 2018 and later. Requirements have not changed for students who began at Penn State before this semester. The older set of requirements can be found in the Archives page. Additional information is available on the Office of General Education website (https://gened.psu.edu).
3. What does the blue keystone symbol mean?
   • The keystone indicates that the course is designated as a General Education course. See the degree requirements for your program to identify the General Education courses that are required. Not all courses marked with the keystone count as meeting General Education requirements when required within your program. See the program requirements and speak to an adviser regarding General Education courses that count or do not count toward the General Education requirements.
4. Where can I find bachelor of arts degree requirements?
   • Bachelor of arts degree requirements are included in the program requirements section for B.A. programs. You may also see
5. Where can I find a list of courses and course descriptions?
   • You may find courses and descriptions several different ways within the Bulletin. You may navigate to the full listing of courses and descriptions from the Courses (http://bulletins.psu.edu/university-course-descriptions) link in the top navigation menu. You may also scroll over any course number within the Bulletin to see the course description in a course bubble. Search for specific courses through the search option on the homepage or in the search functions throughout the Bulletin.

6. What does a red box around a credit number mean?
   • Updates to courses and programs may become effective at various times throughout the year. A red box indicates that a change to the course may have occurred and/or a program update is in progress. You must speak with your adviser regarding the amendments to learn how this affects your academic plan.

7. Which Undergraduate Bulletin should I use?
   • Your official record of General Education (http://bulletins.psu.edu/undergraduate/general-education) requirements are found in the Bulletin year that matches the semester in which you enrolled at Penn State. The program requirements are found in the Bulletin year for the semester in which you were admitted into the major program. See the Archive (http://bulletins.psu.edu/undergraduate/archive) page to find past Bulletins.

8. Where can I find past Bulletins?
   • Past Bulletins can be found on the Archive (http://bulletins.psu.edu/undergraduate/general-education) page, which can be accessed from any page in the Bulletin's top navigation menu.

9. When will the Undergraduate Bulletin be updated?
   • The Bulletin will be updated at the beginning of each semester (fall, spring, and summer). Changes that occur between updates are identified on the Changes (p. 6) page.

10. Why are there are some courses listed in the Bulletin that I can't schedule?
    • The Bulletin Course Description section displays all courses that are currently active at Penn State. Not all of these courses are taught every academic semester or year. To view courses that are available for enrollment by semester, please view the LionPATH Class Search (https://www.lionpath.psu.edu/psc/CSPRD/EMPLOYEE/HRMS/c/SA_LEARNER_SERVICES.CLASS_SEARCH.GBL?Page=SSR_CLSRCH_ENTRY&Action=U).

11. Where can I find information about minors?
    • Minors are a specific type of program and may be found through the search process by filtering by minor (http://bulletins.psu.edu/programs/#filter=filter_24).

12. Where can I find the Graduate Bulletin?
    • The Graduate Bulletin is located at bulletins.psu.edu/graduate (http://bulletins.psu.edu/graduate).

Have a question we didn't include? Please let us know by emailing bulletins@psu.edu.