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 (https://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 (https://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.

Nondiscrimination Statement
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: aao@psu.edu, Tel (814) 863-0471.

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 (https://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 (https://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)

Understanding Course Description Information
The course description data that appears in the University Bulletins is directly imported from LionPATH, the student information system. At several times within an academic year, new or updated course description information is approved by the Faculty Senate and entered into LionPATH. This updated information subsequently appears in the University Bulletins on the date(s) it takes effect.

What course description data is currently showing in the University Bulletins?
There are three course effective dates within an academic year. These effective dates correspond to the first day of the summer, fall, and spring semesters. The University Bulletins shows course description data that is active as of the current semester. On the date a new semester begins, the course description information is updated on the same day to match that course data.

Course Description Update Calendar
May 9, 2022: University Bulletins begins showing course description information that is active for the Summer 2022 semester
August 15, 2022: University Bulletins begins showing course description information that is active for the Fall 2022 semester
December 19, 2022: University Bulletins begins showing course description information that is active for the Spring 2023 semester

Previous Versions of Course Description Information
If a course description is updated after the beginning of an academic year, the previous course description information for that course can be found on the Changes to the UG Bulletin page (p. 6). Course description information from past years can be found in the appropriate archived Bulletin edition (https://bulletins.psu.edu/undergraduate/archive/).

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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<th>Code</th>
<th>Explanation</th>
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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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<tr>
<td>A &amp; A</td>
<td>Arts and Architecture (college abbreviation)</td>
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<tr>
<td>AA</td>
<td>Arts and Architecture (college code)</td>
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<td>AAPPM</td>
<td>Academic Administrative Policies and Procedures Manual</td>
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<td>AB</td>
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<td>AB</td>
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<td>ACUE</td>
<td>Administrative Council on Undergraduate Education</td>
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<td>AG</td>
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<td>AL</td>
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<td>AL</td>
<td>Altoona (college code)</td>
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<tr>
<td>AP</td>
<td>Advanced Placement Program</td>
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<td>APPL</td>
<td>Course requires an application with the School of Music (course characteristic)</td>
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<td>APPT</td>
<td>By appointment (class meeting time)</td>
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<td>AU</td>
<td>Audit, attended regularly (grade reporting symbol)</td>
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<tr>
<td>AUDN</td>
<td>Course requires an audition (course characteristic)</td>
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<tr>
<td>AUU</td>
<td>Audit, did not attend regularly (grade reporting symbol)</td>
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<tr>
<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>
<td>Business, Smeal College of (college code)</td>
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<td>BK</td>
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<td>BK</td>
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<td>BR</td>
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<td>BW</td>
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<td>C</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>CA</td>
<td>Capital (college code)</td>
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<td>CALC</td>
<td>Course requires a calculator (course characteristic)</td>
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<td>CAMP</td>
<td>College Assistance Migrant Program</td>
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<td>CAT</td>
<td>Online catalog, University Libraries</td>
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<td>CC</td>
<td>Commonwealth Campuses</td>
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<tr>
<td>Acronym</td>
<td>Description</td>
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<tr>
<td>CCP</td>
<td>College Contact Person</td>
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<tr>
<td>CCRR</td>
<td>College Contact and Referral Representative</td>
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<td>CCSG</td>
<td>Council of Commonwealth Student Governments</td>
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<td>CE</td>
<td>Continuing Education</td>
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<td>CGPA</td>
<td>Cumulative grade-point average</td>
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<tr>
<td>CIC</td>
<td>Committee on Institutional Cooperation</td>
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<td>CLEP</td>
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<td>CM</td>
<td>Communications (college code)</td>
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<tr>
<td>CNCR</td>
<td>Course is scheduled concurrently with another course (course characteristic)</td>
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<tr>
<td>CNTL</td>
<td>Course is controlled (course characteristic)</td>
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<tr>
<td>COMM</td>
<td>Communications (college abbreviation)</td>
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<tr>
<td>CORD</td>
<td>Course is coordinated with other course(s) (course characteristic)</td>
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<tr>
<td>COST</td>
<td>Course requires an additional fee (course characteristic)</td>
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<td>D</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>DAA</td>
<td>Dean/Director of Academic Affairs</td>
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<td>DF</td>
<td>Deferred grade (grade reporting symbol)</td>
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<td>DN</td>
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<td>DS</td>
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<td>DU</td>
<td>Division of Undergraduate Studies (college code)</td>
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<td>DUS</td>
<td>Division of Undergraduate Studies (college abbreviation)</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>
<td>Eberly College of Science</td>
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<td>EMSC</td>
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<td>ENGR</td>
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<td>EOP</td>
<td>Educational Opportunity Program</td>
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<td>EPR</td>
<td>Early Progress Report</td>
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<td>EPS</td>
<td>Educational Planning Survey</td>
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<td>ER</td>
<td>Behrend (campus code)</td>
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<td>ESL</td>
<td>English as a Second Language</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>FE</td>
<td>Fayette (campus code)</td>
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<td>FINL</td>
<td>Course has a final exam (course characteristic)</td>
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<td>FL</td>
<td>Failure under pass/fail option (grade reporting symbol)</td>
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<td>GHW</td>
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<td>GN</td>
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<td>GN</td>
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<td>GPA</td>
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<td>GR ND</td>
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<td>I</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>I COL</td>
<td>Intercollege programs (college abbreviation)</td>
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<td>International Baccalaureate Program</td>
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<td>Code</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>Course meets at an off-campus location (course characteristic)</td>
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<tr>
<td>SA</td>
<td>Satisfactory achievement (grade reporting symbol)</td>
</tr>
<tr>
<td>SATL</td>
<td>Course is offered at multiple locations via satellite uplink (course characteristic)</td>
</tr>
<tr>
<td>SC</td>
<td>Science, Eberly College of (college code)</td>
</tr>
<tr>
<td>SCIE</td>
<td>Science, Eberly College of (college abbreviation)</td>
</tr>
<tr>
<td>SEG</td>
<td>Course is segmented (course characteristic)</td>
</tr>
<tr>
<td>SGPA</td>
<td>Semester grade-point average</td>
</tr>
<tr>
<td>SH</td>
<td>Shenango (campus code)</td>
</tr>
<tr>
<td>SI</td>
<td>Supplemental Instruction</td>
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<tr>
<td>SITE</td>
<td>Schreyer Institute for Teaching Excellence</td>
</tr>
<tr>
<td>SL</td>
<td>Schuylkill (campus code)</td>
</tr>
<tr>
<td>SLO</td>
<td>Special Living Options</td>
</tr>
<tr>
<td>SOTP</td>
<td>Student Orientation and Transition Programs</td>
</tr>
<tr>
<td>SRTE</td>
<td>Student Ratings of Teacher Effectiveness</td>
</tr>
<tr>
<td>SSP</td>
<td>Student Support Services Program</td>
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<tr>
<td>T</td>
<td>First-Year Seminar and Honors (course suffix)</td>
</tr>
<tr>
<td>TMDT</td>
<td>Course has additional meeting times/dates (course characteristic)</td>
</tr>
<tr>
<td>U</td>
<td>United States Cultures/International Cultures and Honors (course suffix)</td>
</tr>
<tr>
<td>UAO</td>
<td>Undergraduate Admissions Office</td>
</tr>
<tr>
<td>UC</td>
<td>University College (college code)</td>
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<tr>
<td>UE</td>
<td>Undergraduate Education</td>
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<tr>
<td>UFO</td>
<td>University Fellowships Office</td>
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<tr>
<td>UG</td>
<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 nondegree (college code)</td>
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Changes to the Undergraduate Bulletin

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

Courses Added: Effective Summer 2022

- ADTED 300: Social Movements and Education: Global Perspectives
- AG 180N: Contemporary Issues in Food, Ag, Natural Resources, and Human Sciences
- ANTH 434N: Black Ecologies
- BBH 330: Clinic Intern Training
- BBH 426: HealthWorks Peer Education Experience
- BIOL 128: Investigations in Anatomy with Cadavers
- BIOL 477: Biology Cadaver Dissection
- BIOL 484: Biodiversity of Pennsylvania
- BIOL 489: Biology of Ecohealth in Tanzania
- CMLIT 7: Introduction to Middle Eastern Literatures
- CMPSC 330: Advanced Programming in C++
- CMPSC 446: Data Mining
- CMPSC 476: Systems Debugging
- DS 305: Algorithmic Methods and Tools
- DS 440W: Data Science Capstone
- EARTH 10: Energy and Earth's Climate
- EDUC 414: Teaching Secondary Science
- ENGL 10: Group Writing Tutorial
- ENT 440: Plant-Insect Interactions
- FIN 426: Analysis of Interest Rates and Debt Markets
- FIN 480: Alternative Investments
- FRNSC 490: Traceology & Event Reconstruction
- FRNSC 412: Laboratory in Criminalistics: Trace and Impression Evidence
- HDFS 101S: "Helping People:” Introduction to Understanding Social Problems & How to Help
- HHD 245N: Health, humanity, and longevity: Conversations with elders
- HIST 305Y: Middle East Studies Research Workshop
- HIST 400: Global History of Food and Famine
- HIST 425: History of the Incas
- HLS 495: Homeland security internship
- HM 210: The Impact of Culture and Customs in Global Hospitality Environments
- HPA 123S: Exploring Health Policy and Administration
- ISTAT 144N: Invasion of Technology from a 21st Century Perspective
- KINES 470: Genetics and Human Physical Performance
- ME 493: ME Honors Thesis Writing Preparation
- MUSIC 127: Introduction to Music Technology
- MUSIC 177: ROARS Lab
- MUSIC 437: Music Information Retrieval and Computer-Assisted Music
- MKTG 495A: Penn State Prime Practicum: Brand Management and Campaign Strategy
- RHS 93: WorkLink Seminar I
- RHS 193: WorkLink Seminar II
- RHS 295A: WorkLink Internship
- RHS 404: Rehabilitation Services for Transition Age Youth with Disabilities: Theory and Practice
- RHS 493: Professional Development and Internship Preparation in RHS
- SLED 410: Culturally Responsive Pedagogy in Special Education
- SLED 495D: Professional Development for Special Education Teacher Candidates
- STS 115: Pre-departure Intercultural Learning
- THEA 206: Critical Theory for Performance
- THEA 474: Theatre Design History I
- THEA 475: Theatre Design History II
- WFED 472: Platform Skills for Workplace Learning and Performance
understand such sources. This course will emphasize critical thinking approach difficult theoretical sources that have been assigned to them, corporation. This class will depend largely upon written responses and that satirizes global capital by camouflaging itself as a multinational may also look at the ways in which net.art (Art made to be viewed on his "blackness" up for sale on ebay.com in August of 2001. Students as Keith Obadike, whose on-line performances include an attempt to put will have an opportunity to engage with African American artists such of categories such as race and national identity. For example, students which art on the internet and digital art in general challenge the integrity of contemporary digital art. Through readings and direct interaction with digital media and digital artists, the class will develop an appreciation of the ways in which the interface between human beings and technology has been historically constructed and is subject to critical investigation. The goal of the class is to prepare each student so that she or he may engage with digital media in a way that is more historically and socially self aware. Students will address the ways in which digital technologies transform artistic practices such as museum display, the writing of art criticism, the definition of works of art, changing role of the artist and the changing space of the art studio. More important, however, by engaging with digital works of art students will learn to think critically about technology and its engagement with culture at large. They will be encouraged to think about the political, economic and social impact of digital technologies. This humanistic approach to technology would make this course particularly useful to students of art history, philosophy, comparative literature, art education, and the visual/plastic arts. A significant portion of the course will be devoted to the ways in which art on the internet and digital art in general challenge the integrity of categories such as race and national identity. For example, students will have an opportunity to engage with African American artists such as Keith Obadike, whose on-line performances include an attempt to put his “blackness” up for sale on ebay.com in August of 2001. Students may also look at the ways in which net.art (Art made to be viewed on the internet) can critique commercial cooption of global culture: etoy.com, for example, is an international and collaborative artist’s group that satirizes global capital by camouflaging itself as a multinational corporation. This class will depend largely upon written responses and class discussion, rather than upon tests. Thus, students will learn how to approach difficult theoretical sources that have been assigned to them, and they will learn how to ask the kinds of questions that will help them understand such sources. This course will emphasize critical thinking rather than memorization, so students will develop analytical skills that will be useful in many other contexts. Because students will be given weekly writing assignments, they will be able to improve their skills in composition.

Cross-Listed Courses: ART 476; Prerequisites: Enforced Prerequisite at Enrollment: ARTH 100 or ARTH 112 or ARTH 307 or ARTH 325 or ARTH 326 or ART 211

Changes Effective Summer 2022:

• Prerequisites

BBH 410: Developmental and Health Genetics (3 Credits) Old Listing Effective Through Spring 2022:

Discussion of genetic influences on development and the interrelationships between genetics and health.

Prerequisites: Enforced Prerequisite at Enrollment: (BIOL 133 or BIOL 222) and (STAT 200 or STAT 250)

Changes Effective Summer 2022:

• Abbreviated Title
• Description
• Prerequisites

BBH 440: Principles of Epidemiology (3 Credits) (US) (IL) Old Listing Effective Through Spring 2022:

Theory of epidemiology and significant case studies; potential applications to health care. BBH / HPA 440 Principles of Epidemiology (3) (US;IL)This course is designed to provide students with a basic understanding of the principles of Epidemiology and to familiarize students with the methods and applications of epidemiology to understanding the bases for heterogeneity of disease and health among populations. The goals of the course are: 1) recognize and use basic principles, concepts, terminology, and techniques in Epidemiology as applied to the study of infectious disease, chronic diseases, and other health-related problems; 2) examine and understand measures of risk and burden of illness on populations defined in terms of age, race, gender, class, time, and other relevant socio-cultural and demographic factors; 3) be able to interpret and critique epidemiological research reports on the identification of risk factors and casual factors for diseases in populations; 4) assess the health status and burden of diseases and health problems of populations at multiple levels of analysis for the purpose of planning health promotion activities and health care services; 5) have a basic understanding of the epidemiology tools for disease screening and other methods for primary and secondary prevention of disease and health problems; 6) examine the validity and applicability of various health interventions used to improve health status and the barriers for successful interventions; and 7) have a basic understanding of the epidemiology of the major causes of morbidity and mortality in the U.S. and for other selected regions and nations of the world. This is a required course in the Biobehavioral Health major and an elective course in the Health Policy and Administration major. The course is also appropriate for students intending to advance to post-baccalaureate graduate and professional programs in medicine, public health, health policy and planning, and other health-related careers. Students will be evaluated based on their performance on a combination of written assignments, a term paper or project, and exams.
Cross-Listed Courses: HPA 440

Prerequisites: Enforced Prerequisite at Enrollment: (BBH 101 or BIOL 110 or HPA 310) and (STAT 200 or STAT 250)

Changes Effective Summer 2022:

- Abbreviated Title
- Description
- Prerequisites

BIOL 220M: Honors Biology: Populations and Communities (4 Credits) (H) (WF) (BA)

Old Listing Effective Through Spring 2022:

Honors study of the major physical, chemical, and biological factors constituting environment and their dynamic interaction with organisms forming ecosystems. A study of the structures and functions of organismic interactions from simple populations to complex ecosystems. (BIOL 220W, BIOL 230W, and BIOL 240W each carry only 1 credit of "writing"; all three courses must be taken to meet the writing requirement.) BIOL 220M is an introductory course in ecology. It introduces students to the fundamental ecological principles, concepts, patterns, and processes regarding populations, communities, and ecosystems. This course provides students with a foundation of ecological science, as well demonstrating linkages between ecology, population genetics, and evolution. The course objectives are the same as those described in the original course proposal and are to provide students with a fundamental understanding of: 1) genetic processes within populations of living things, 2) evolutionary processes involved in speciation, 3) dynamic interactions of organisms within and among populations, especially pertaining to energy cycles, various biogeochemical cycles, predator-prey interactions, and the like, and 4) distribution patterns of living organisms and the need to conserve the resources of the earth.

Prerequisites: Enforced Prerequisite at Enrollment: BIOL 110H

Changes Effective Summer 2022:

- Prerequisites

BIOL 240M: Honors Biology: Function and Development of Organisms (4 Credits) (H) (WF)

Old Listing Effective Through Spring 2022:

Honors study of development and physiological processes at the organismic level. (BIOL 220W, BIOL 230W, and BIOL 240W each carry only 1 credit of "writing"; all three courses must be taken to meet the writing requirement.) This course provides an understanding of the major unifying principles as they apply to the study of the development and physiological mechanisms utilized by organisms from both animals and plants. In lecture a comparative approach will be taken in the examination of reproduction, development, and physiology primarily at the organismal level. In laboratory, experimental investigations of both animal and plant systems will reinforce the concepts covered in lecture. Through the lab, students are expected to become proficient in the interpretation and presentation of experimental results through written and oral reports. Taken together with the other core courses in the biology curriculum (BIOL 110, BIOL 220, BIOL 230W), BIOL 240M will help students to integrate concepts ranging from molecular and cellular events through principles governing entire populations and ecosystems. Further, BIOL 240M provides the foundation on which students further their study of animal physiology and development – two of the largest options in the biology majors curriculum. Through this class, and the other core course, students will develop skills integral to the General Education mission. Evaluation methods in the lecture part of the course include two to three “mid-term” exams and a comprehensive final exam. Evaluation methods in the lab portion of the course include in-class quizzes, one or more formal lab reports on experiments or data analysis conducted in lab sessions, and short write-ups of existing data sets or relevant ecological issues. The Honor’s version of the course will differ in a number of ways from the parent BIOL 240W course. First, there are more opportunities to discuss current applications of the information. In addition, a unique project (either in lab and/or in lecture) will allow students to explore a specific area of the course in more detail (e.g., students choose a topic in the current literature and present a paper along with its significance to the class). Where appropriate, students will be exposed to current research in specific areas. The evaluation for the course will be modified from that of the parent course in accordance with the changes in assignments.

Prerequisites: Enforced Prerequisite at Enrollment: BIOL 110H and CHEM 110 or CHEM 111H

Changes Effective Summer 2022:

- Prerequisites

CAMS 440W: Studies in Classical and Ancient Mediterranean Archaeology (3-6 Credits: Maximum of 6 Credits) (WF) (BA)

Old Listing Effective Through Spring 2022:

Selected topics in the literary sources and material evidence for classical and ancient Mediterranean society. CAMS 440WCAMS 440W Studies in Classical Archaeology (3-6)(BA) This course meets the Bachelor of Arts degree requirements. CAMS 440W is a writing-across-the-curriculum upper level archaeology course on various topics in the broad field of ancient Mediterranean archaeology. The course will vary depending on the specific topic, which could be a study of authors such as Herodotus and/or Pausanias in relation to the archaeological record; epigraphy; numismatics; food production and consumption (e.g., diet, subsistence requirements, public dining, symposia, Roman dining, furnishings) from the literary and archaeological record; various classes of ancient Mediterranean ceramics; or the archaeological study of a specific urban site, such as Troy, Babylon, Egyptian Thebes, the Athenian Agora, or Pompeii with an emphasis upon economic and social organization. In most semesters the topic will emphasize interdisciplinary themes, such as comparative state formation, or Egyptian-Greek-Persian relations, or the cultural development of a particular society, such as the Etruscan, that was strongly influenced by interaction with other Mediterranean cultures. Students will learn of major publications in the field of study, and how to conduct searches of the previous archaeological literature and the related literary record. As one requirement, students will complete a research paper on a topic related to the particular theme of the course that semester. The sequence of writing assignments is designed to allow students to develop a project, to search for related publications, to develop a proposal, and to revise drafts of the final paper. The course is also intended to provide students with a practical background in Classical and ancient Mediterranean archaeology that will help prepare them for fieldwork at ancient Mediterranean sites, for the interpretation of archaeological publications, and, as relevant, for utilizing the literary and/or epigraphic record for interpreting archaeological evidence. Those considering enrolling in this course may obtain information about the specific topic by asking the faculty member listed as teaching the course.
or the Undergraduate Officer in the Department of Classics and Ancient Mediterranean Studies.

Changes Effective Summer 2022:

- Description
- Prerequisites
- Cross-Listing

CRIM 250W: Research Methods in Criminology (3 Credits)
Old Listing Effective Through Spring 2022:

The purpose of this writing-intensive course is to engage students in the social scientific research process used by criminologists to answer empirical research questions. It is the second course (after CRIM 249) that overviews theory and research in criminology. Students learn to use social science research methods through instructor-led demonstrations and applications of research methods, data analysis exercises, and critical reading of published research. Students apply their research knowledge and skills to an empirical research project completed in a sequence of steps producing written drafts that receive instructor feedback. After completion of this course, students will have acquired the following knowledge and skills: (1) The ability to generate a research question and effectively and efficiently search and review the relevant research literature. (2) A working knowledge of how to apply social science research methods and research designs to answer research questions. (3) The ability to strategically read published research articles to extract different types of information. (4) An understanding of the inductive and deductive aspects of the research process. (5) The ability to collect, analyze, and interpret quantitative and qualitative data. (6) The ability to design a quantitative research project to test hypotheses of interest to criminologists. (7) The ability to summarize and explain in writing the methods used and results derived from studies seeking answers to a common research question. (8) An understanding of social science research methods needed to be critical consumers of research and claims about crime, criminal behavior, and social response to them. (9) A certified knowledge about ethical issues in social science research.

Cross-Listed Courses: CRIMJ 250W
Prerequisites: CRIM 12

Changes Effective Summer 2022:

- Remove Cross-Listing
- Prerequisites

CRIM 490: Crime Policy (3 Credits)
Old Listing Effective Through Spring 2022:

This course focuses on criminal justice policy and the factors that influence policy development and implementation. CRIM 490 Crime Policy (3) This class will study crime and criminal justice in the context of the law and the development and implementation of public policy. The course will focus on the politics of law and social control by exploring the construction of crime as a social problem, fundamental aspects of the policy development and implementation process, the legal interpretation of public policy, and the role of federal, state, and local governments in crime control. Students will be evaluated on essay exams and a term paper. This course is intended to be a capstone course for advanced undergraduates. The course will draw on the broad range of course work that students will have taken prior to taking this course to develop a course that takes what we know about crime, the law and the justice system and focus on public policy as it relates to these areas. The course may be used toward the six credits required at the 400 level under Additional Courses or as one of the courses under the Legal Studies Option.

Changes Effective Summer 2022:

- Prerequisites
- Cross-Listing

DS 310: Machine Learning for Data Analytics (3 Credits)
Old Listing Effective Through Spring 2022:

The course teaches students the principles of machine learning (and data mining) and their applications in the data sciences. DS 310 Machine Learning for Data Analytics (3) The course introduces the principles of machine learning (and data mining), representative machine learning algorithms and their applications to real-world problems. Topics to be covered include: principled approaches to clustering, classification, and function approximation from data, feature selection and dimensionality reduction, assessing the performance of alternative models, and relative strengths and weaknesses of alternative approaches. The course will include a laboratory component to provide students with hands-on experience with applications of the algorithms to problems from several domains. Prerequisites for the course include basic proficiency in programming, elementary probability theory and statistics, and discrete mathematics.

Prerequisites: Enforced Prerequisite at Enrollment: (CMPSC 121 or CMPSC 131) and STAT 318

Changes Effective Summer 2022:

- Prerequisites

DS 320: Data Integration (3 Credits)
Old Listing Effective Through Spring 2022:

Recommended Preparations: DS 310 Modern data-intensive applications (healthcare, security, public policy, science, commerce, crisis management, education, among others) increasingly call for integration of multiple types of data from disparate sources. This course introduces students to the principles and the practice of data integration, with particular emphasis on relational, knowledge-based, graph-based, and probabilistic methods. Carefully crafted assignments will help enhance the students’ mastery of both the theoretical underpinnings as well as practical aspects of data integration. The students will work in teams to solve representative data integration problems drawn from real-world applications. Upon completion of the course, students should be able design, implement, and evaluate data integration solutions to support data intensive applications.

Prerequisites: Enforced Prerequisite at Enrollment: DS 220 and STAT 318

Recommended Preparation: DS 310

Changes Effective Summer 2022:

- Prerequisites

DS 410: Programming: Models for Big Data (3 Credits)
Old Listing Effective Through Spring 2022:

Recommended Preparations: DS 310; CMPSC 448 This course introduces modern programming models and related software stacks for performing scalable data analytics and discovery tasks over massive and/or high dimensional datasets. The learning objectives of the course are that the
students are able to choose appropriate programming models for a big data application, understand the tradeoff of such choice, and be able to leverage state-of-the-art cyber infrastructures to develop scalable data analytics or discovery tasks. Building on data models covered in DS 220, this course will introduce programming models such as MapReduce, data flow supports for modern cluster computing environment, and programming models for large-scale clustering (either a large number of data samples or a large number of dimensions). Using these frameworks and languages, the students will learn to implement data aggregation algorithms, iterative algorithms, and algorithms for generating statistical information from massive and/or high dimensional data. The realization of these algorithms will enable the students to develop data analytic models for massive datasets.

Cross-Listed Courses: CMPSC 410
Prerequisites: Enforced Prerequisite at Enrollment: (CMPSC 122 or CMPSC 132) and DS 220. Recommended Preparation: DS 310 or CMPSC 448

Changes Effective Summer 2022:

- Prerequisites

EARTH 111: Water: Science and Society (3 Credits) (US)
Old Listing Effective Through Spring 2022:

Investigation of water behavior and occurrence, its relevance to life, human activities, politics, and society. EARTH 111 Water: Science and Society (3) (GN;US) The Earth is often called ‘The Blue Planet’, a reference to the fact that over two-thirds of its surface is covered by water. Despite its apparent abundance, water is a valuable and limited resource; less than 2.5% of the water on the planet is fresh, and only one third of that is potable. And that’s not all – the small fraction of Earth’s water that is useful to humans is distributed very unevenly. As a result, conflicts over water occur from the local level, for example: pitting rancher against developer – to the global level, at which nations square off against one another in war and use water as a mechanism for imposing sanctions. The dire situation in some regions has spurred numerous research and technological endeavors, such as water desalination, genetic engineering of crops, and major overhauls of agricultural practice. In this course, we will explore the relationships between water and human populations, with emphasis on water resources and quality in the Western U.S., and how these have shaped history and modern politics. We will focus first on developing the scientific underpinnings of water’s unique properties, behavior, movement, occurrence, and quality. With this background, we will then discuss key issues relating to modern and historical conflicts, human impacts on the natural world, and human engineering accomplishments driven by our thirst for this valuable resource. We will discuss historical examples from the American West, specifically the development of water resources in Colorado and California. We will also explore modern and historical conflicts between stakeholders. Major themes will include political and economic conflicts over (1) water resources – for example, balancing agricultural and urban demands in the American west in the Denver and Los Angeles metropolitan areas, (2) water quality – for example, considering the impact of economically profitable human activities on water quality and transmission of disease, and (3) human impacts on natural processes, specifically connecting human activity with our cultural history of water use and exploration in the American West. Our approach is to include a substantial component of student-initiated learning. The course will include critical evaluation and discussion of assigned reading and films, a series of laboratory exercises and field trips to illustrate concepts and stimulate discussion, and a major research paper.

Changes Effective Summer 2022:

- Add GS Designation
- Add Inter-Domain Designation
- Change Course Number to 111N
- Description

EDUC 495B: Senior Field Experience (1 Credit: Maximum of 1 Credit)
Old Listing Effective Through Spring 2022:

EDUC 495B Senior Field Experience (1) This course is designed to provide Elementary Education majors with an intensive field experience that acquaints the student with the ‘real’ world of elementary education in an urban setting. The experience will be under the direction of a certified elementary teacher in the Harrisburg or Steelton-Highspire School Districts. Students will have an opportunity to actively work at the primary (K-3) and/or the intermediate (4-6) level, and will be directed to accomplish specific field tasks assigned by their course instructors. These tasks are directly related to each course in which the student is enrolled. Students are assigned a university supervisor who observes and consults with the students throughout the experience. Specific activities will vary depending on the grade level and the school district’s curriculum. Students are evaluated by both the cooperating teacher and the university supervisor, and these evaluations are based on classroom observations. This course is offered each semester and is required of all students enrolled in the Elementary Education program.

Changes Effective Summer 2022:

- Credits
- Description

EE 341: Semiconductor Device Principles (3 Credits)
Old Listing Effective Through Spring 2022:

Quantitative description of properties and behavior of materials with application to integrated circuits, photonic devices, and quantum well devices.

Changes Effective Summer 2022:

- Description
- Prerequisites
- Concurrent

EGEE 120: Oil: International Evolution (3 Credits) (US) (IL)
Old Listing Effective Through Spring 2022:

Survey of the commercial development of the world petroleum industry from various international, historical, business, and cultural perspectives. EGEE 120 Oil: International Evolution (3) (GS;US;IL) Oils is the world’s most important commodity. Access to oil was decisive in the great military struggles of the 20th century. The economic and strategic value of oil has led to the evolution of a fascinating array of business, political, and strategic alliances around the world. The objective of this course is to describe this evolution and the technological, commercial, and political innovations shaping its current face. This knowledge is vital in achieving a more complete understanding of the role of oil in international affairs and economic development. The course begins with a discussion of the development of the American and European oil industries during the 19th
ENGL 2 is a lecture/discussion course that addresses major works of fiction, drama, and poetry from the Middle Ages to the twentieth century expressing enduring issues and values. ENGL 2 will require all students to confront the major interpretive problems found in their assigned readings and to participate actively in the various forms of critical thinking required to comprehend and resolve those problems. ENGL 2 will require all students to participate in an assessment of the social behavior and other values, both communal and scholarly, relevant to the texts being read and discussed in the course. This course fulfills a General Education humanities requirement or a Bachelor of Arts humanities requirement.

Changes Effective Summer 2022:

- Add IL Designation
- Description

ENGL 129 constitutes a broad introduction to Shakespeare’s dramatic works from a variety of thematic, historical, formal, and/or generic vantages. Students will practice close reading Shakespeare’s language while also learning how his plays reflect upon the social and theatrical conventions of the historical period in which they were written and performed. Approaches taken to the plays will vary from class to class, but may include a chronological introduction to the development of Shakespeare’s plays, a consideration of a principal Shakespearean theme or themes through a number of plays from across Shakespeare’s career, a consideration of Shakespeare’s protagonists through a number of plays from across Shakespeare’s career, or a consideration of a number of Shakespeare’s plays in historical context. The class will attend to issues such as gender, social class, politics, sexuality, and race, and students will learn how Renaissance perspectives on these issues differed from their own. In order to analyze how Shakespeare’s plays continue to be adapted and transformed, the class may also involve the study of modern stage and film performances of Shakespeare. Time allotted for the discussion of each play will vary, but students should expect to read, on average, one play every 1-2 weeks. This class will prepare students for advanced courses in early modern literatures as well as other academic courses that engage in the verbal and written analysis of complex written texts.
Changes Effective Summer 2022:

- Add IL Designation
- Description

ENGL 129H: Shakespeare (3 Credits) (H) (BA)
Old Listing Effective Through Spring 2022:

ENGL 129H constitutes a broad introduction to Shakespeare’s dramatic works from a variety of thematic, historical, formal, and/or generic vantages. Students will practice close reading Shakespeare’s language while also learning how his plays reflect upon the social and theatrical conventions of the historical period in which they were written and performed. Approaches taken to the plays will vary from class to class, but may include a chronological introduction to the development of Shakespeare’s plays, a consideration of a principal Shakespearean theme or themes through a number of plays from across Shakespeare’s career, a consideration of Shakespeare’s protagonists through a number of plays from across Shakespeare’s career, or a consideration of a number of Shakespeare’s plays in historical context. The class will attend to issues such as gender, social class, politics, sexuality, and race, and students will learn how Renaissance perspectives on these issues differed from their own. In order to analyze how Shakespeare’s plays continue to be adapted and transformed, the class may also involve the study of modern stage and film performances of Shakespeare. Time allotted for the discussion of each play will vary, but students should expect to read, on average, one play every 1-2 weeks. This class will prepare students for advanced courses in early modern literatures as well as other academic courses that engage in the verbal and written analysis of complex written texts.

Changes Effective Summer 2022:

- Add IL Designation
- Description

ENGL 182: Literature and Empire (3 Credits) (BA)
Old Listing Effective Through Spring 2022:

Literature written in English from countries that were once part of European empires, e.g., India, Canada, South Africa, and others.

Changes Effective Summer 2022:

- Add IL Designation
- Description

ENGL 192: The Literature of Fantasy (3 Credits) (BA)
Old Listing Effective Through Spring 2022:

Perhaps more than any other genre of speculative fiction, fantasy is richly varied. This course examines the development of literary traditions in fantasy literature from their earliest origins in mythology and folklore, through the historical development of classic fantasy works, into the books, movies and other fictions of the modern day. The course also explores different critical and theoretical approaches to the student of fantasy literature and related artistic traditions, as surrealism and magical realism.

Changes Effective Summer 2022:

- Add IL Designation
- Description

ENGL 202A: Effective Writing: Writing in the Social Sciences (3 Credits) (GWS)
Old Listing Effective Through Spring 2022:

ENGL 202A introduces students to the types of writing that social scientists typically do in the workplace, including research proposals, proper citation practices, literature reviews, and research reports. In discussing writing and writing activities, this class will focus on some of the more common forms of social science research – among them, experiments, interviews, observations, and surveys. Students will learn to formulate ideas and create coherent pieces of writing from the research they have conducted and read about. In short, this course will introduce students to a variety of writing and research strategies from which they can begin to develop their own identity as a social scientist. (A student may take only one course for credit from ENGL 202A, 202B, 202C, and 202D.)

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T) and 4th Semester

Changes Effective Summer 2022:

- Prerequisites

ENGL 202B: Effective Writing: Writing in the Humanities (3 Credits) (GWS)
Old Listing Effective Through Spring 2022:

Instruction in writing persuasive arguments about significant issues in the humanities. (A student may take only one course for credit from ENGL 202A, 202B, 202C, and 202D.) ENGL 202B Advanced Writing in the Humanities encourages students to develop professional writing skills most likely required in humanities careers. These writing modes include professional materials and then a wider range of writing projects that may include a professional narrative, analysis of a controversy, argumentation, persuasion, and synthesis. Students may analyze a wide-variety of texts – both verbal, digital, and visual – to learn skillful argumentation with advanced writing techniques.

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T) and 4th Semester

Changes Effective Summer 2022:

- Prerequisites

ENGL 202C: Effective Writing: Technical Writing (3 Credits) (GWS)
Old Listing Effective Through Spring 2022:

Writing for students in scientific and technical disciplines. (A student may take only one course for credit from ENGL 202A, 202B, 202C, and 202D.) ENGL 202C is an advanced writing course designed to help students in science and engineering develop the writing strategies that they will need to communicate successfully on the job and to help them understand why those strategies are appropriate and effective. A key emphasis will be on the rhetorical principles of effective communication, including context analysis and defining clear, actionable purposes. Students will gain experience with a wide range of technical writing genres, including reports, descriptions, definitions, procedures, job application documents, emails, memos, and web applications. Students will also learn about the importance of document and graphic design, including how best to design communications to maximize their potential for success.
Using this Bulletin

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T) and 4th Semester

Changes Effective Summer 2022:

- Prerequisites

ENGL 223N: Shakespeare: Page, Stage, and Screen (3 Credits)
Old Listing Effective Through Spring 2022:

This course will explore the relation between literary analysis and both film and theatrical performance by asking students to approach a limited set of plays from multiple perspectives, using texts, film, and theatrical performance to integrate these methodologies. Students will work closely with Shakespearean texts, practice textual and poetic analysis, and will also examine critically different forms of performance: film and live theatre. In particular, the course will explore the interrelation of these elements, revealing a deeper imaginative understanding of works that continue to influence English-speaking literature and culture.

Changes Effective Summer 2022:

- Add IL Designation
- Abbreviated Title
- Description

ENGL 250: Peer Tutoring in Writing (3 Credits) (BA)
Old Listing Effective Through Spring 2022:

Introduction to theories and skills of successful peer tutoring in writing. Provides tutoring experience in a writing center.

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T)

Changes Effective Summer 2022:

- Prerequisites

ENGL 310H: Honors Thesis in English (3 Credits) (H) (BA)
Old Listing Effective Through Spring 2022:

Research paper or creative project on a topic approved by the Departmental Honors Committee.

Changes Effective Summer 2022:

- Description
- Prerequisites

ENGL 312: Globality and Literature (3 Credits) (BA)
Old Listing Effective Through Spring 2022:

Examines relationships between literature and culture, through the study of major texts in English by writers of various cultures.

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T)

Changes Effective Summer 2022:

- Add IL Designation
- Description

ENGL 400: Authors, Texts, Contexts (3 Credits: Maximum of 6 Credits) (BA)
Old Listing Effective Through Spring 2022:

Styles, cultural milieu, critical perspectives toward particular English-language authors and/or movements they represent, and the idea of authorship. (Section subtitles may appear in the Schedule of Courses.)

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T)

Changes Effective Summer 2022:

- Prerequisites

ENGL 401: Studies in Genre (3 Credits: Maximum of 6 Credits) (BA)
Old Listing Effective Through Spring 2022:

English-language texts exemplifying particular genres, with attention to critical theories, historical development, rhetorical strategies, and social, cultural, and aesthetic values. (Section subtitles may appear in the Schedule of Courses.)

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T)

Changes Effective Summer 2022:

- Prerequisites

ENGL 401W: Creative Writing Theory (3 Credits) (WF) (BA)
Old Listing Effective Through Spring 2022:

Theories of art and creativity which inform the making of literary works.

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T)

Changes Effective Summer 2022:

- Prerequisites

ENGL 402: Literature and Society (3 Credits: Maximum of 6 Credits) (BA)
Old Listing Effective Through Spring 2022:

Texts confronting social, political, technological, or other issues in the English-speaking world. (Section subtitles may appear in the Schedule of Courses.) ENGL 402 Literature and Society (3)(BA) This course meets the Bachelor of Arts degree requirements. One variation will focus on Literature and Censorship by first considering general arguments for and against censorship and then by examining texts by writers who sought publication in their own country but whose books were censored or banned. The course will consider such questions as, Are there ever legitimate grounds for censorship? How do standards of censorship differ between countries? What is the relation between censorship on political and on moral grounds? What does artistic merit have to do with concern about moral or political subversion? Works from England, South Africa and the United States will be read and discussed, and where available, excerpts from trial transcripts will be read in order to examine arguments for and against publication. Readings will include works by Milton, D. H. Lawrence, Alan Paton, Nadine Gordimer, Athol Fugard, Eugene O’Neill, Henry Miller, and Alan Ginsberg. Another variation will focus on war...
and gender in 20th century American literature by examining the ways male and female authors write about war. Texts will vary from battlefield experiences to repercussions of war to the symbolic implications of war. Questions will be raised about literary authority: Does one need to be combatant to write about war? If not, how does one find the authority to speak, particularly as a woman? How does race and/or ethnicity complicate one’s perceptions of American participation in war? Readings will include works by Ernest Hemingway, William Faulkner, Joseph Heller, Cynthia Ozick, Leslie Marmon Silko, Norman Mailer, Bobbie Mason, Tim O’Brien, and Toni Morrison. Another variation will focus specifically on the writings which emerged from the postwar African-American struggle for civil rights. The course will include not only fiction and poetry but also those speeches, sermons, editorials, and other forms of discourse to have emerged from the era. The emphasis will be both traditional literary concerns as well as on the various rhetorical strategies involved in each work. Ideally, the course would make visible to students the difficulties attendant upon any attempt to separate the concerns of rhetoric and persuasion too firmly from the concerns of literature. The course could conclude with a look at some of the various biographies, autobiographies, and histories written over the last twenty-five years, which attempt to shape our national memory. Other variations include literature as a response to Newtonian science or to Darwinism or to the American Depression or to postwar technology or to new dystopias or to AIDS or, as in the sample outline, the Civil Rights movement.

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T)

Changes Effective Summer 2022:

• Prerequisites

ENGL 403: Literature and Culture (3 Credits: Maximum of 6 Credits) (BA)
Old Listing Effective Through Spring 2022:

Historical, theoretical, and practical issues within cultural studies in relation to English-speaking texts. (Section subtitles may appear in the Schedule of Courses.) ENGL 403 Literature and Cultural Studies (3)(BA) This course meets the Bachelor of Arts degree requirements. Topics covered in this course will vary from semester to semester, but a broad framework will be to introduce students to literary and other texts read in relation to cultural studies. Individual instructors may take up different historical periods, while other instructors may suggest ways cultural studies draws on different theoretical discourses such as rhetoric, deconstruction, feminism, or the New Historicism for its problems. All Reading Culture courses should serve as an introduction to cultural studies, moving from theoretical to practical readings of literature and culture. In any case, a common goal would involve examining cultural studies as constituted by plural theories and ends.

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T)

Changes Effective Summer 2022:

• Prerequisites

ENGL 404: Mapping Identity, Difference, and Place (3 Credits: Maximum of 6 Credits) (BA)
Old Listing Effective Through Spring 2022:

Ethnicity, gender, class, race with reference to theoretical inquiry into identity, difference, and place in English-language literatures. (Section subtitles may appear in the Schedule of Courses.)

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T)

Changes Effective Summer 2022:

• Prerequisites

ENGL 487W: Senior Seminar (3 Credits) (WF) (BA)
Old Listing Effective Through Spring 2022:

Issues, themes, periods, critical theories, etc., that invite students to use prior English studies, limited to seniors majoring in English.

Prerequisites: Enforced Prerequisite at Enrollment: ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T)

Changes Effective Summer 2022:

• Prerequisites

ENGL 491: The Capstone Course in Professional Writing (3 Credits) (BA)
Old Listing Effective Through Spring 2022:

This culminating course for Professional Writing majors concentrates on reflective analyses, design, and presentation of documents in the development of professional portfolios.

Prerequisites: Enforced Prerequisite at Enrollment: [ENGL 15 or ENGL 15A or ENGL 15S or ENGL 15E or ESL 15 or ENGL 30H or ENGL 30T or (ENGL 137H and ENGL 138T)] and (ENGL 202A or ENGL 202B or ENGL 202C or ENGL 202D) and 7th Semester standing or higher AND enrollment in the PWRT_BA major.

Changes Effective Summer 2022:

• Prerequisites

ERM 440: Chemistry of the Environment: Air, Water, and Soil (3 Credits)
Old Listing Effective Through Spring 2022:

A global perspective of the chemical principles, composition and processes that operate within and between air, water, and soil environments. E R M 440 Chemistry of the Environment: Air, Water, and Soil (3) This course provides a global perspective of the chemical principles, composition and processes that operate within and between air, water and soil environments. The course is designed to develop knowledge of chemistry fundamentals as applied to the principles and concepts used in environmental chemistry. Upon completion of this course, students will have an understanding of soil, water, and air chemical principles and their applications. Specifically designed for juniors and senior undergraduates, the course will link theoretical chemistry concepts to real-world environmental problems. Students will be evaluated on examinations, homework, and class participation.

Prerequisites: CHEM 110 , CHEM 111 , CHEM 112 ; CHEM 202 or CHEM 210

Changes Effective Summer 2022:
This course focuses on concepts, methods, techniques, and tools for designing effective technology-enabled experiences. The course will provide students with all the elements for a toolbox they can use to design and create both prototypes and working applications, and some analytic methods they can use to perform basic evaluations. The course will emphasize iterative design and the benefits of employing a cycle of analyze – design – built – evaluate in close cooperation with prospective technology users and other product stakeholders. In addition to more practice-oriented skills and knowledge, the course will provide students with an appreciation for some persistent design challenges including managing design trade-offs, ensuring universal and international access, working with others on co-design, and receiving and delivering design critiques. Students who successfully complete the course will leave equipped to engage with practicing design teams in industry, government, and academia.

Prerequisites: Enforced Prerequisite at Enrollment: IST 242 and (HCDD 113 or HCDD 113S)

Changes Effective Summer 2022:

• Prerequisites

HCDD 440: Human-Centered Design and Development Capstone Course (3 Credits)
Old Listing Effective Through Spring 2022:

The Human-Centered Design and Development Capstone course develops the research orientation and creative problem solving necessary for successful careers. The capstone develops these skills in the context of a semester long project, the solution to which requires integration of knowledge, skills and analytic techniques taught in the core curriculum. The capstone will also give student a real world experience in which they will need to work in teams and will be coached on ways to translate analytic outcomes into meaningful and actionable information for decision makers. The course is intended for seniors who have successfully completed the core courses. The capstone projects will integrate knowledge gained in technical subjects such as usability engineering, software construction and engineering, and mobile computing as well as general information technology topics such as machine learning, data mining, data integration and visualization, and privacy and security. Students will also hone their presentation and technical writing skills, generating effective reports that not only explain their analytic processes, assumptions underlying the processes and outcomes, but also communicate the limitations of their approach and potential alternate strategies.

Prerequisites: Enforced Prerequisite at Enrollment: (IST 261 or IST 361) and HCDD 364W. Recommended Preparations: HCDD 340

Changes Effective Summer 2022:

• Prerequisites

INART 215: The Craft of Singing (3 Credits)
Old Listing Effective Through Spring 2022:

Vocal and breathing anatomy and technique, vocal health and classifications, posture, and beginning acting/movement techniques for singers. INART 215 The Craft of Singing (3) (GA) Vocal and breathing anatomy and technique, vocal health and classifications, posture, and beginning acting/movement techniques for singers. Anatomy of the larynx and respiratory system are studied and strengthened through in-class work on vocal and breathing exercises. Focus will be on good tone production and resonance. Aspects of vocal health, voice classification, and basic differences between Classical and Musical Theatre vocal styles are introduced. Techniques that enhance and develop acting and movement choices are also studied through individual and group exercises and through the performance of songs.

Changes Effective Summer 2022:
Most Americans spend a third of their adult lives at work. This course examines the legal rights and rights and obligations of employers and employees in US workplaces. No previous course in law is necessary.
The course begins with an overview of general legal concepts necessary to an understanding of the US legal system. That sets the stage for an examination of the employment contract, a cornerstone of employment law. The main body of the course examines such topics as sexual harassment, drug testing, wage and hour regulation, immigration, health care, pregnancy, family leave, workers’ compensation, employee privacy, and unionization. This introduces students to landmark federal and state employment statutes, regulations, and cases. As students learn about workplace rights and obligations, they discuss the public policy issues underlying most debates. Throughout, students are encouraged to argue policy questions from the different perspectives of employers, employees, and the public. Being both “employee” and “employer-centric,” the course is designed for the generalist as well as the major in the field. Thus, its content helps to prepare literally any future employee with vital liberal arts and career-related knowledge, while at the same time providing a foundation for students who choose to specialize in human resources or labor relations.

Changes Effective Summer 2022:

- Change Abbreviation to LHR

LER 201: Employment Relationship: Law and Policy (3 Credits) (BA)
Old Listing Effective Through Spring 2022:

The course will be offered at an introductory level. It is designed to encourage students to explore individual and group behavior at work. The ability to describe, explain and analyze concepts in this course is critical to appreciating the dynamics that determine organizational outcomes. In this context, students will learn basic tools that will assist them in developing management, supervisory and leadership skills. Because the concepts from this course are the foundation of human resource management and employee relations, it is essential to master them in order to be an effective human resource management or employee relations professional. The conceptual learning in the course will include individual differences, diversity, attitudes, fairness perceptions, motivation, decision making, leadership, teams, negotiation, organizational culture and its role in the external context.
The course surveys the main elements of modern labor and employment relations systems in the U.S. and beyond. The course encourages students to use a framework for evaluating workplace outcomes according to three yardsticks: efficiency, equity, and voice. Focusing primarily on employee voice, the course introduces students to a variety of mechanisms that bring democracy, worker engagement, and worker influence to the workplace. Among these mechanisms are U.S.-style collective bargaining, non-union systems of worker involvement, European works councils, and a new variety of “alt-labor” initiatives from around the world. In its single largest unit, the course focuses on U.S. workplaces, beginning with the historical and legal foundations of the modern U.S. labor relation system. This includes units examining union organizing campaigns, collective bargaining, and dispute resolution systems. Concluding weeks of the course look at issues surrounding the push for workplace flexibility, a comparative labor relations look at other country practices (include European works councils), emerging issues in global supply chains, “alt-labor” institutions and practices, the role of gender, race, and diversity initiatives at work, and the impact of automation and artificial intelligence on the future of work.

Prerequisites: LER 100

Changes Effective Summer 2022:

- Change Abbreviation to LHR
- Prerequisites

LER 305: Human Resources Fundamentals (3 Credits) (BA)
Old Listing Effective Through Spring 2022:

This course will provide students with an opportunity to understand and apply important concepts concerning human resources in the workplace. Students will learn to think of the issues in the class from both the employees’ and organizations’ perspectives. The course begins with a description and analysis of the role human resource managers play in supporting employees’ personal needs as well as an organization’s strategic objectives. The discussion traces the changes in that role historically, as well as the contemporary understanding of HR’s part in helping stakeholders succeed. Against this backdrop, students will study three critical variables affecting HR’s involvement in management: the individual; the organization; and, the law. Each of these foci illustrates variables with which HR managers must contend. The course presents these variables through a variety of lenses: law, psychology, sociology, history and literature. Students will also spend considerable time studying the various functions HR plays in recruiting, selecting, training, evaluation, compensation, labor relations and safety. In these portions of the class, students will learn to understand the functions not only from the organization’s, but also from the employees’ perspective. The discussion of functional areas will end with application of the concepts studied to the global business environment in which HR increasingly operates. Throughout students will not only learn the mechanics of, for example, the selection process, but how processes support an organization’s and individual’s pursuit of their unique purposes. Consistent with the liberal arts environment in which LER students enroll, the final project requires students to apply the concepts learned concerning the HR function to their everyday lives, helping students to reflect on the difference HR processes can have on both the organization but equally important on the employee. As a Gen Ed course (GS), the course qualifies as a Bachelor of Arts (B.A.) course consistent with the B.A. Fields category.

Prerequisites: LER 100

Changes Effective Summer 2022:

- Change Abbreviation to LHR
- Description
- Prerequisites

LER 312: Employment Relations to Research Methods in Labor and Employment Relations (3 Credits) (BA)
Old Listing Effective Through Spring 2022:

The objective of this course is to enhance students’ abilities to use a range of methodologies to evaluate and conduct research in the field of employment relations and human resource management. LER 312 Employment Relations to Research Methods in Labor and Employment Relations (3)(BA) This course meets the Bachelor of Arts degree requirements. The objective of this course is to enhance students’ abilities to use a range of methodologies to evaluate and conduct research in the field of employment relations and human resource management. It covers core concepts such as the scientific method, literature search, the logic of hypothesis formulation and testing, measurement, sampling and data collection methods, and basic statistical analysis. To accomplish these objectives, the course utilizes readings, lectures, class discussions, exercises and assignments, student presentations, and examinations.

Changes Effective Summer 2022:

- Change Abbreviation to LHR
- Description

LER 400: Comparative Employment Relations Systems (3 Credits) (IL) (BA)
Old Listing Effective Through Spring 2022:

Analysis of structure and elements of employment relations systems in developed and developing areas. LER 400 LER 400 Comparative Employment Relations Systems (3) (IL)(BA) This course meets the Bachelor of Arts degree requirements. This course explores contemporary topics in employment relations in the world. The course examines seven examples of employment relations systems, each carefully chosen to illustrate important variations in employment relations practices. It also provides an overview of economic globalization and its impact on employment relations. Topics include global sweatshops, child labor, the diffusion of human resource practices, and corporate social responsibility. The first country case is Germany, which provides an example of a country with strong national unions and a highly developed system of works councils. The Swedish case exemplifies a long-tradition of centralized bargaining and tripartite relations that is now in transition. The third case, Japan, illustrates some of the initial experiences with team work, just-in-time production, and employee commitment through job security and training. China offers an example of a socialist system in transition that has become an economic powerhouse through massive export processing zones, government controlled unions, and wage competition. Brazil provides an important example of a Latin American country with a state dominated employee relations system. South Africa offers a case of highly politicized employment relations in a country in transition from extreme
Changes Effective Summer 2022:

- Change Abbreviation to LHR
- Description
- Prerequisites

LER 401: The Law of Labor-Management Relations (3 Credits) (BA)

Old Listing Effective Through Spring 2022:

Development of Anglo-American law regulating collective bargaining, with emphasis on American labor-management relations under Wagner, Taft-Hartley, and other acts. LER 401 The Law of Labor – Management Relations (3)(BA) This course meets the Bachelor of Arts degree requirements. This course will examine the evolution of labor law in the United States. The N.L.R.A. itself, and the decisions of the National Labor Relations Board (N.L.R.B) and the courts, will be examined in order to gain an understanding of the current legal framework underpinning our system of labor-management relations. Major issues to be examined include the rights of employees to union representation; the formation of bargaining units; the conduct of organizing campaigns and elections; the duty to bargain; strikes, striker’s rights, and lockouts; picketing, boycotts, and related activity; the enforcement of collective bargaining agreements and the duty to arbitrate; union members’ rights and responsibilities, the duty of fair representation; and federal-state relationships in labor relations. Also covered in the course will be the legal framework for public sector labor-management relations, with specific attention paid to Pennsylvania Acts 111 and 195. The course will be taught from a liberal arts perspective, meaning that societal factors influencing the law—history, politics, and economics —will be emphasized. Student performance will be evaluated by means of tests, short papers, and such reports as may be required. This course is complementary to others in Labor Law, including LER 434, Collective Bargaining and LER 435 Labor Relations in the Public Sector. The course requires no special facilities or equipment; however, students enrolled are expected to have computer skills sufficient for communication and word processing purposes.

Prerequisites: 3 credits in Labor and Employment Relations or Political Science

LEader 409: Leadership Development: A Life-Long Learning Perspective (3 Credits) (BA)

Old Listing Effective Through Spring 2022:

The course examines the continuing influence of social and environmental factors in shaping leadership and leadership development. LER (OLEAD) 409 Leadership Development: A Life-Long Learning Perspective (3)(BA) This course meets the Bachelor of Arts degree requirements. Current social conditions, such as financial crises, ineffective solutions to local, national, and international problems and corrupt leaders, call for more effective and ethical leadership.
on a broad scale. The positive and moral transformation of social institutions requires active participation and leadership of more authentic transformational leaders. This course will discuss authentic transformational leadership development from a life span developmental perspective. More specifically, it will focus on how an individual develops his/her leadership skills, potential, and capacity in his/her childhood, school, social organizations, colleges, and work organizations. The primary purpose of this course is to help students understand how family, educational, and other environmental factors have helped and/or will help them develop their transformational leadership potential and leadership effectiveness, in addition to gaining a better understanding of their strengths and weaknesses in respect to personality, individual difference, motivation, values, emotions, self-awareness, and identity. The fundamental objectives of this course are to help students 1) increase self-awareness; 2) to help students to know more about their sense of self, including self-identity, self-awareness, self-efficacy, and other types of self concepts; 3) to understand the effect of life span influences in an individual’s leadership development.

Prerequisites: Prerequisites: OLEAD 100 or 6TH Semester Standing

Changes Effective Summer 2022:
• Change Abbreviation to LHR
• Description
• Prerequisites

LER 426: Staffing and Training Strategies in Organizations (3 Credits) (BA)
Old Listing Effective Through Spring 2022:
This course focuses on the theory and practice of human resource staffing and training in organizations. It provides the conceptual framework for understanding the staffing and training function as a factor of production and service. For this we will discuss policies and practices designed to attract, retain, and motivate employees. It explains how staffing and training can be used as a competitive weapon. For this we discuss how human resource policies and practices can be targeted towards achieving business objectives. This should inspire you to think of the connection between employee effectiveness and profitability. The course also provides the government regulations that impact staffing and training practices. The course uses lectures, group discussion, and in-class exercises to impart these concepts.

Prerequisites: LER 100

Changes Effective Summer 2022:
• Change Abbreviation to LHR
• Prerequisites

LER 427: Organizational Context for Human Resource Management and Employment Relations Professionals (3 Credits)
Old Listing Effective Through Spring 2022:
This course examines human resource management (HRM) and employment relations (ER) from a strategic perspective embedded in a complex and evolving organizational system. To be effective, students must understand how different organizational strategies interface with the entire set of HR/ER practices put in place. This approach also requires an ability to connect business functions, governance, organizational metrics and financial considerations with investments in the broader HR/ER system. The goal of this course is to build business acumen by providing a foundational understanding of the components of a strategic and proactive HR/ER system. Through active learning, this course will encourage the development of analytical skills, personal competencies, and in-depth understanding of how various HRM and ER parts work together to shape organizational success. Students are more effective in their roles when they understand organizational strategic typologies, business functions, and governance structures that can affect the structure and implementation of the HRM/ER functions. Other topics include vertical and horizontal integration of the supply chain, and mergers and acquisitions, both of which are important to the work context. Basic finance and accounting concepts relevant to HRM/ER such as profit and loss statements, balance sheets, and cash flow enable students to understand how managers and leaders make resource decisions. Students gain credibility with other organizational decision makers by better understanding concepts such as earnings per share, return on assets (ROA) and return on investment (ROI). Understanding the time value of money and implications for decisions regarding investments in people enables students to be more effective in decision-making roles. The goal is to provide students with the fundamentals of the business context as relevant to their roles as HRM and ER professionals. The use of metrics and measures to provide feedback to the organization and individual employees will be examined. The criticality of understanding appropriate metrics and the importance of finding or creating valid, reliable, and bias-free metrics is explored. Learning how to create balanced score cards and associated HRM/ER scorecards can provide actionable insight to all organizational stakeholders. Finally, exposure to conceptual frameworks related to ethics and risk assessment will enable students to apply such frameworks in an organizational context. The goal is to have HRM and ER students develop a deep understanding of perspectives, practices, and tools that connect HRM and ER policies and practices to an organization’s context and strategy.

Prerequisites: LER 100 AND LER 305

Changes Effective Summer 2022:
• Change Abbreviation to LHR
• Title
• Abbreviated Title
• Prerequisites

LER 435: Labor Relations in the Public Sector (3 Credits) (BA)
Old Listing Effective Through Spring 2022:
Analysis of labor relations problems within different areas of public employment. LER 435 LER 435 Labor Relations in the Public Sector (3)(BA) This course meets the Bachelor of Arts degree requirements. Upon completing this course, students should be able to identify the legal frameworks that govern collective bargaining between employers and unions in federal, state and local governments. Students should also be able to explain the process of collective bargaining in the government sector and the special circumstances that make public sector bargaining different from private sector bargaining. At course end, students should be able to identify the parties involved in public sector bargaining, including those involved in dispute resolution, and explain their priorities in the labor relations process. Students should come to understand and articulate the reasons why it is important to study and more fully comprehend the public sector labor relations process. Together, we will explore the distinctions between public and private sector employers that impact labor relations in the public sector, in order to better understand those distinctions. Also, we will explore the principal historical differences between negotiations in the public and private sectors, in order that students can better articulate those differences.
In addition, we will work to understand the principal arguments for and against the right to strike for public sector employees, as well as other impasse resolution processes. Finally, we will work to identify and discuss the challenges facing public sector labor relations in the near term and in the intermediate term.

Prerequisite: 3 credits in Labor and Employment Relations

**Changes Effective Summer 2022:**

- Change Abbreviation to LHR
- Description
- Prerequisites

**LER 437: Workplace Dispute Resolution (3 Credits) (BA)**

Old Listing Effective Through Spring 2022:

Dispute resolution practices and procedures used in the workplace and employment law settings. LER 437 LER 437 Workplace Dispute Resolution (3)(BA) This course meets the Bachelor of Arts degree requirements. This course examines dispute resolution procedures in unionized and nonunion workplaces. The course begins with an examination of grievance procedures in unionized workplaces and the system of labor arbitration. Students will read labor arbitration decisions and learn how to research arbitration issues. The second major theme of the course is an examination of the design and use of nonunion dispute resolution procedures. Students will read descriptions and analyses of examples of nonunion grievance procedures. Finally, the course will look at procedures for resolving employment law disputes and the major public policy debates surrounding mandatory nonunion arbitration procedures. Students will read some of the major legal cases in this area of the law and perspectives both for and against mandatory arbitration. A key objective of the course is to enable students to both understand and think critically about different alternative dispute resolution procedures and their role in employment relations. As part of achieving this objective, the course will include simulated dispute resolution exercises to provide students with experience in using techniques such as arbitration, mediation, and peer review. Additional course requirements include regular class attendance and participation, and paper assignments based on each of three main sections of the course. This course builds on and is complementary with other coursework in Labor and Employment Relations in the areas of employment relations, employment and labor law, and human resource management. It also compliments courses in other departments in the area of dispute management and resolution, including the Minor in Dispute Management and Resolution. LER 437 may also be taken as an elective by students in the MS in Human Resources and Employment Relations and compliments coursework in the graduate program.

Prerequisite: LER 100 LER 110 or 6th Semester standing

**Changes Effective Summer 2022:**

- Change Abbreviation to LHR
- Description
- Prerequisites

**LER 458Y: History of Work in America (3 Credits) (WF) (US) (BA)**

Old Listing Effective Through Spring 2022:

A study of selected problems in the history of work in the United States, especially since 1877.

Cross-Listed Courses: HIST 458Y

Prerequisite: HIST 021, HIST 156, or LER 100

**Changes Effective Summer 2022:**

- Change Abbreviation to LHR
- Description
- Prerequisites

**LER 464: Communication Skills for Leaders in Groups and Organizations (3 Credits) (BA)**

Old Listing Effective Through Spring 2022:

Theory and research-based communication skills for leaders dealing with workplace conflict and managing workplace culture and change. LER 464 Communication Skills for Leaders in Groups and Organizations (3)(BA) This course meets the Bachelor of Arts degree requirements. Workplace Safety and Health: Principles and Practices focuses on the roles of employees, unions, employers, and government in addressing work-related safety and health issues. The course will introduce students to the three interrelated fields of workplace safety, workplace health, and environmental protection. Students will be provided with an overview of key issues within these fields and gain an appreciation for their importance within the workplace. Students will also become familiar with the fundamental concepts involved in the management of workplace safety and health issues. LER 444 satisfies requirements within the Labor Studies and Employment Relations major and may be taken as an elective. LER 444 is complementary to other courses dealing with employee relations and legal principles within the workplace.

Prerequisite: LER 100 or sixth-semester standing

**Changes Effective Summer 2022:**

- Change Abbreviation to LHR
- Description
- Prerequisites

**LER 444: Workplace Safety and Health: Principles and Practices (3 Credits) (BA)**

Old Listing Effective Through Spring 2022:

The role of employees, unions, employers, and government in dealing with work-related safety and health issues. LER 444 Workplace Safety and Health: Principles and Practices (3)(BA) This course meets the Bachelor of Arts degree requirements. Workplace Safety and Health: Policies and Practices focuses on the roles of employees, unions, employers, and government in addressing work-related safety and health issues. The course will introduce students to the three interrelated fields of workplace safety, workplace health, and environmental protection. Students will be provided with an overview of key issues within these fields and gain an appreciation for their importance within the workplace. Students will also become familiar with the fundamental concepts involved in the management of workplace safety and health issues. LER 444 satisfies requirements within the Labor Studies and Employment Relations major and may be taken as an elective. LER 444 is complementary to other courses dealing with employee relations and legal principles within the workplace.
as both role-related behavior and goal-directed behavior, regardless of
roles that members of groups and organizations occupy.

Cross-Listed Courses: OLEAD 464

Changes Effective Summer 2022:
  • Change Abbreviation to LHR
  • Description
  • Prerequisites

LER 465: Collective Decision Making (3 Credits) (BA)
Old Listing Effective Through Spring 2022:
Application of theories of decision making to work-related issues in
groups and organizations requiring collective resolution and action. LER
465 Collective Decision Making (3)(BA) This course meets the Bachelor
of Arts degree requirements. This course presents a broad overview
of theories, research, and practices in decision making as related to
work-related choice making in groups and organizations and is open to
students majoring or minoring in Labor and Industrial Relations, as well
as to students who may wish to use the course as an elective. The course
is offered once each academic year and has an enrollment limit of 40
students per offering. It requires no special facilities. L I R 465 extends to
other courses in the major, primarily in the areas of Industrial Relations
and Human Resources. It is also complementary to courses dealing with
decision making in groups and organizations in sociology, psychology,
and management. Of particular interest are decision making practices,
as well as theories that account for them, in single-motive situations
(in which participants in the process are pursuing a common goal) and
mixed-motive situations (in which two or more of the participants are
competitively related, but must cooperate to achieve their objectives).
Hence, the course deals both with (1) conventional decision making,
as in the case of boards, task forces, problem-solving groups, and
quality circles or teams, appropriate to single-motive situations and (2)
processes, such as bargaining, negotiation, and dispute management/
resolution, appropriate to mixed-motive situations. The course also deals
with the influence of organizational culture on decision-making in both
types of situations. Upon completing L I R 465, students will have been
exposed to a broad array of theoretical perspectives on decision making
in groups and organizations, will be familiar with research testing these
theories, and be aware of decision making practices suggested by theory
and research that are useful in situations requiring collective choice and
action. These terminal outcomes of the course reflect the objectives.

Changes Effective Summer 2022:
  • Change Abbreviation to LHR
  • Description
  • Prerequisites

LER 494: Research Project (1-12 Credits: Maximum of 12 Credits)
(H) (BA)
Old Listing Effective Through Spring 2022:
Supervised student activities on research projects identified on an
individual or small-group basis.

Changes Effective Summer 2022:
  • Change Abbreviation to LHR

LER 495: Labor Studies Internship (1-12 Credits: Maximum of 12
Credits) (BA)
Old Listing Effective Through Spring 2022:
Supervised practicum in labor relations setting with union, management,
or government agency.
Prerequisite: prior approval by department

Changes Effective Summer 2022:
  • Change Abbreviation to LHR
  • Prerequisites

LER 496: Independent Studies (1-18 Credits: Maximum of 18
Credits) (BA)
Old Listing Effective Through Spring 2022:
Creative projects, including research and design, which are supervised on
an individual basis and which fall outside the scope of formal courses.

Changes Effective Summer 2022:
  • Change Abbreviation to LHR

LER 497: Special Topics (1-9 Credits: Maximum of 9 Credits) (BA)
Old Listing Effective Through Spring 2022:
Formal courses given infrequently to explore, in depth, a comparatively
narrow subject which may be topical or of special interest.

Changes Effective Summer 2022:
  • Change Abbreviation to LHR

LER 499: Foreign Studies (1-12 Credits: Maximum of 12 Credits)
(IL) (BA)
Old Listing Effective Through Spring 2022:
Courses offered in foreign countries by individual or group instruction.

Changes Effective Summer 2022:
  • Change Abbreviation to LHR

MNG 412: Mineral Property Evaluation (3 Credits)
Old Listing Effective Through Spring 2022:
Ore reserve estimation using statistics and geostatistics, mine cost
estimation, engineering economy concepts applied to mineral deposits.

Changes Effective Summer 2022:
  • Description
  • Prerequisites
  • Concurrent
The laboratory will include experiments that show the advantages of each process and to develop student competency in running equipment for each process explored. The students shall also develop competency in conducting elementary process troubleshooting for each process. Student competency is assessed by graded lab reports and projects.

Prerequisites: PLET 227 AND PLET 304

Changes Effective Summer 2022:

- Add Concurrent

PLET 345: Heat Transfer (2 Credits)
Old Listing Effective Through Spring 2022:

Fundamentals of heat transfer including conduction, convection, and radiation. PL ET 345 Heat Transfer (2) The course is intended to allow the student to develop the ability to conceptually evaluate heat transfer problems, and solve practical problems that might be encountered in the plastics industry including those that relate to energy management in plastic materials or processes. The course objectives are accomplished by establishing the concepts of the three principle mechanisms of heat transfer, solving plastics related problems illustrative of each mechanism, and reinforcing theoretical concepts learned through the use of simulation software and hands-on laboratory experiments. During this course students will build upon the knowledge gained in an earlier course in the thermal and fluid sciences. Student competency is assessed by graded quizzes, examinations, homework, and special assignments. The course is offered once per year with an enrollment of 40 to 50 students.

Enforced Prerequisite at Enrollment: PLET 205

Changes Effective Summer 2022:

- Remove Enforced Prerequisites
- Add Concurrent

PLET 464: Plastics Failure Analysis (3 Credits)
Old Listing Effective Through Spring 2022:

In-depth studies and laboratory experiments will be conducted on processes such as blow molding, thermoforming, extrusion, and rotational molding, and other packaging processes. PLET 323 Packaging Processes (3) In this course the student will learn about plastic packaging processes of blow molding, thermoforming, extrusion. Other minor processes will be presented. The course objectives are to develop student proficiencies in identifying the polymer material requirements for each process, in identifying the mold design and construction techniques for each process, and knowing how plastic packaging processes differ from injection molding. The laboratory will include experiments that show the advantages of each process and to develop student competency in running equipment for each process explored. The students shall also develop competency in conducting elementary process troubleshooting for each process. Student competency is assessed by graded lab reports and projects.

Prerequisites: Enforced Prerequisite at Enrollment: PLET 30

Changes Effective Summer 2022:

- Enforced Prerequisites

PNG 440W: Formation Evaluation (3 Credits) (WF)
Old Listing Effective Through Spring 2022:

Study of those methods used to evaluate the engineering properties of oil and gas bearing reservoir formations.
risk management. Organizational culture – Perhaps one of the most systematically linked to perceptions and actions associated with and groups). What goes right and wrong? How are these processes plays out in various forms and across different levels (i.e., individuals making – Decision making around strategy and risk management across the firm? Where and how is risk assessed in these processes structured to implement these strategies and move information decisions that comprise a business strategy? How are organizations is through a business strategy. What is strategy? What are the key strategy, structure, and culture. These elements emerge from a series of objectives are to come away with an understanding of the following: Forms of strategic risk – From market to internally-driven risk; from emotional to economic-driven, how does strategic risk present itself? How do executives recognize/assess and respond to the “portfolio of risk” that they must address to make the business successful? Business strategy, structure, and culture. These elements emerge from a series of decisions guided by the insights and biases of individuals. As such, the management of enterprise risk must also include an understanding of how individuals (e.g. managers) approach risk through their decisions and decision making processes. In this course, we look at some of these critical elements separately and then together as they integrate to guide and define enterprise risk management. The basic course objectives are to come away with an understanding of the following: Forms of strategic risk – From market to internally-driven risk; from emotional to economic-driven, how does strategic risk present itself? How do executives recognize/assess and respond to the “portfolio of risk” that they must address to make the business successful? Business strategy and structure – One way risk is addressed and articulated is through a business strategy. What is strategy? What are the key decisions that comprise a business strategy? How are organizations structured to implement these strategies and move information across the firm? Where and how is risk assessed in these processes and structures, and incorporated into a strategic risk plan? Decision making – Decision making around strategy and risk management plays out in various forms and across different levels (i.e., individuals and groups). What goes right and wrong? How are these processes systematically linked to perceptions and actions associated with risk management. Organizational culture – Perhaps one of the most critical elements in enterprise risk management is the role played by organizational culture (or simply “How we do things around here and my role as an organizational member doing it.”) We examine the roots of organizational culture and how it is aligned to perspectives of risk and its management. Descriptive vs. prescriptive perspectives – Once we “described” what does/could go on, we need to engage in looking at ways that organizations can prevent pitfalls and correct suboptimal practices.

Prerequisites: Enforced Prerequisite at Enrollment: RM 320W or RM 330W

Changes Effective Summer 2022:

• Description
• Enforced Prerequisites

PSYCH 230: Introduction to Psychologies of Religion (3 Credits) (BA)
Old Listing Effective Through Spring 2022:
Introduction to major Western psychologies of religion (James, Freud, Jung) and to subsequent extensions of and departures from them.

Changes Effective Summer 2022:

• Description
• Prerequisites

RADSC 295A: Radiologic Science Clinical Internship I (1.5 Credits: Maximum of 1.5 Credits)
Old Listing Effective Through Spring 2022:
Supervised off-campus, non-group instruction including field experiences, practica, or internships. Written and oral critique of activity required.

Prerequisites: Enforced Prerequisite at Enrollment: RADSC 101 and RADSC 110

Changes Effective Summer 2022:

• Abbreviated Title
• Prerequisites
• Concurrent

RM 440: Risk, Strategy, and Decision Making (3 Credits)
Old Listing Effective Through Spring 2022:
To examine key strategic concepts, ranging from cognitive to organizational, that are critical for managing risk at the enterprise level. RM 440 Risk, Strategy, and Decision Making (3) One of the key ways that a business attempts to manage risk it anticipates and confronts in markets is through organizational-level elements such as its business strategy, structure, and culture. These elements emerge from a series of decisions guided by the insights and biases of individuals. As such, the management of enterprise risk must also include an understanding of how individuals (e.g. managers) approach risk through their decisions and decision making processes. In this course, we look at some of these critical elements separately and then together as they integrate to guide and define enterprise risk management. The basic course objectives are to come away with an understanding of the following: Forms of strategic risk – From market to internally-driven risk; from emotional to economic-driven, how does strategic risk present itself? How do executives recognize/assess and respond to the “portfolio of risk” that they must address to make the business successful? Business strategy and structure – One way risk is addressed and articulated is through a business strategy. What is strategy? What are the key decisions that comprise a business strategy? How are organizations structured to implement these strategies and move information across the firm? Where and how is risk assessed in these processes and structures, and incorporated into a strategic risk plan? Decision making – Decision making around strategy and risk management plays out in various forms and across different levels (i.e., individuals and groups). What goes right and wrong? How are these processes systematically linked to perceptions and actions associated with risk management. Organizational culture – Perhaps one of the most
Changes Effective Summer 2022:
- Remove Prerequisites

SPAN 353: Topics in the Cultures of Spain (3 Credits) (BA)
Old Listing Effective Through Spring 2022:

This course offers a comparative study of the literature, artistic manifestations, intellectual traditions, and cultural productions of Spain. This course offers a comparative study of the literature, artistic manifestations, intellectual traditions, and cultural productions of Spain. Depending on the semester focus, topics related to literary movements, comparative approaches to genre, and/or connections between textual representation and politics, social movements, and/or Spain's long and complex history (both locally and globally) may be at the center of discussion. Additionally, varied issues of gender, race and ethnicity, rural and urban environments, religion, and evolving conceptions of nationhood may be included as overarching themes. Particular literary genres and representative works may be foregrounded in yet another iteration of the course, wherein students will study and discuss principal readings against cultural backdrops framed by exposure to art, film, music, and/or other historical, intellectual, sociopolitical, and/or media-based materials of relevance to the semester-specific context at hand.

Prerequisite: SPAN 200

Changes Effective Summer 2022:
- Remove Prerequisites

SPAN 354: Topics in Border Studies (3 Credits) (BA)
Old Listing Effective Through Spring 2022:

This course offers a study of borders as key sites of contact, exchange, conflict, hybridity, and identity production in and across varied contexts of Spanish, Latin American, and/or Latina/o culture(s). This course offers a study of borders — geopolitical, social, intellectual, literary, artistic, and/or historical — as key sites of contact, exchange, conflict, hybridity, and identity production in and across varied contexts of Spanish, Latin American, and/or Latina/o culture(s). While diverse variables (including diaspora, gender, race and ethnicity, sexuality, colonialism, nationhood and transnationalism) will inform particular iterations of the course, approaches and text selection will be shaped by an understanding of borders as constructs defined by conditions of dynamic interaction and transformation. Materials to be considered in the course, which will vary according to the focus, may include literary, artistic, and intellectual works, film, mediabased texts, music, and/or historical documents.

Prerequisite: SPAN 200

Changes Effective Summer 2022:
- Remove Prerequisites

SUR 381: Stormwater Hydraulics and Hydrology (4 Credits)
Old Listing Effective Through Spring 2022:

Hydraulics: statics, continuity, energy, friction; hydrology: rainfall, abstractions, travel time, runoff; stormwater design: sewers, culverts, basins, erosion; municipal regulations. SUR 381 Stormwater Hydraulics and Hydrology (4) Stormwater Management Hydraulics and Hydrology is an elementary treatment of common design practices used to create stormwater management plans for small to medium sized land development projects. Erosion and sedimentation design is also addressed within the context of a stormwater management plan. The course is intended for engineering students who are not required to take formal fluid mechanics or hydrology courses, yet have a need to understand or complete the design aspects of stormwater management as it relates to their professional practice. Some state professional registration laws refer to this type of engineering design as “minor engineering” which is engineering design as it relates to land surveys connected to land development activities. Other types of “minor engineering” include street alignment, sanitary sewers, water lines, utilities and site grading. The course contains three segments. The first segment covers the elementary hydraulics necessary to design drainage structures and storm water detention facilities. These topics include fluid statics, continuity, conservation of mass, conservation of energy, friction losses, minor losses, energy grade line, open channel flow, weirs and orifices. The second segment covers elementary hydrology methods used to analyze runoff from land development sites and small to medium watersheds. The hydrology topics include watershed characteristics, rainfall, abstractions, runoff, time of concentration, peak flow methods, hydrograph methods, basic channel routing and detention basin routing. The third segment covers government regulations and common design methods used to design storm sewers, detention basins and erosion control plans. A project includes the design of a multipleelement storm sewer system, a stable open channel, a detention facility with a multiple outlet structure, and some erosion control measures.

Prerequisites: MATH 141, 6th semester standing; Concurrent: PHYS 213

Changes Effective Summer 2022:
- Remove Concurrent

Program Changes

Accounting, B.S. (Behrend) (ACNTG_BS)
Effective Summer 2022:

- Increased Prescribed Courses from 64 credits to 70 credits
- Added MIS 250, MIS 345 to Prescribed Courses
- Decreased Additional Courses from 20 credits to 17 credits
- Added MIS 336, MIS 344 to Additional Courses
- Decreased Supporting Courses and Related Areas from 12 credits to 9 credits

Advertising/Public Relations, B.A. (ADPR_BA)
Effective Summer 2022:

- Changed Electives from 23 credits to 23-26 credits
- Changed Requirements for the Major from 35 credits to 35-38 credits
- Removed COMM 411 from Additional Courses in the Advertising Option
- Changed Requirements for the Public Relations Option from 21 credits to 24 credits
- Added COMM 372 to Prescribed Courses in the Public Relations Option
- Added COMM 305 to Additional Courses in the Public Relations Option
- Removed COMM 411 from Additional Courses in the Public Relations Option

Art History, Minor (ARTH_UMNR)
Effective Fall 2022:

- Remove Prerequisites
• Revised Program Description
• Added ARTH 111Z to Additional Courses

Communication Arts and Sciences, B.A. (CASBA_BA)
Effective Summer 2022:
• Added new Integrated B.A. in Communication Arts and Sciences and M.S. in Human Resources and Employment Relations

Communication Arts and Sciences, B.S. (CASBS_BS)
Effective Summer 2022:
• Added new Integrated B.S. in Communication Arts and Sciences and M.S. in Human Resources and Employment Relations

Computer Science, B.S. (Engineering) (CSENG_BS)
Effective Fall 2022:
• Program added to Beaver, Brandywine, Hazleton campuses

Data Sciences, B.S. (DATSC_BS, DTSCE_BS, DTSCS_BS)
Effective Spring 2021:
• Revised Program Description
• Decreased total requirements for degree completion from 125 credits to 123 credits
• Changed Electives from 5-14 credits to 0-9 credits
• Increased Requirements for the Major from 72-81 credits to 75-84 credits
• Decreased Prescribed Courses for the Major from 27 credits to 24 credits
• Added DS 435 to Prescribed Courses for the Major
• Removed DS 300, DS 440 from Prescribed Courses for the Major
• Increased Additional Courses for the Major from 10 credits to 13 credits
• Added STAT 418/MATH 418, DS 440, DS 440W to Additional Courses for the Major
• Removed STAT 414/MATH 414 from Additional Courses for the Major
• Increased Additional Courses for the Option from 35-44 credits to 38-47 credits
• Increased credits required for the Applied Data Sciences option from 38 credits to 41 credits
• Added DS 300 to Prescribed Courses for the Applied Data Sciences option
• Removed IST 230 from Prescribed Courses for the Applied Data Sciences option
• Increased Additional Courses for the Applied Data Sciences option from 6 credits to 9 credits
• Added CMPSC 360, DS 420, DS 494, IST 230, MATH 311W to Additional Courses for the Applied Data Sciences option
• Removed IST 445, IST 462 from Additional Courses for the Applied Data Sciences option
• Increased credits required for the Computational Data Sciences option from 44 credits to 47 credits
• Increased Prescribed Courses for the Computational Data Sciences option from 28 credits to 31 credits
• Added CMPSC 461, STAT 414/MATH 414 to Prescribed Courses for the Computational Data Sciences option
• Removed CMPSC 455 from Prescribed Courses for the Computational Data Sciences option
• Increased credits required for the Statistical Modeling Data Sciences option from 35 credits to 38 credits
• Increased Prescribed Courses for the Statistical Modeling Data Sciences option from 13 credits to 16 credits
• Added STAT 414/MATH 414 to Prescribed Courses for the Statistical Modeling Data Sciences option

Elementary Education, B.El.Ed. (ELEM_BELED)
Effective Summer 2022:
• Revised Program Description
• Revised Entrance to Major Requirements
• Changed total requirements for degree completion for the PK-4 Early Childhood Option from 134 credits to 139 credits
• Changed total requirements for degree completion for the Grade 4-8 English/Language Arts and Reading Option from 132 credits to 137 credits
• Changed total requirements for degree completion for the Grade 4-8 Mathematics Option from 137 credits to 139 credits
• Changed total requirements for degree completion for the Grade 4-8 Social Studies Option from 135 credits to 137 credits
• Changed Requirements for the Major from 132-142 credits to 131-141 credits
• Added 0-6 credits of Electives
• Decreased Prescribed Courses for the Major from 71 credits to 67 credits
• Added EDUC 385 to Prescribed Courses for the Major
• Removed EDUC 320, SPLED 404 from Prescribed Courses for the Major
• Changed EDUC 490 from 12 credits to 9 credits in Prescribed Courses for the Major
• Changed EDUC 495B from 1 credit to 3 credits in Prescribed Courses for the Major
• Increased Additional Courses for the Major from 21 credits to 24 credits
• Added HDFS 229 and HDFS 239 to Additional Courses for the Major
• Increased Supporting Courses and Related Areas for the Major from 13-18 credits to 13-21 credits
• Added EDUC 477, EDUC 452, SPLED 404, SPLED 409C to Supporting Courses and Related Areas for the Major
• Removed SPLED 409A, SPLED 409B, SPLED 418 from Supporting Courses and Related Areas for the Major
• Added EDUC 320 to Prescribed Courses in the PK-4 Early Childhood Education Option
• Removed HDFS 229 from Prescribed Courses in the PK-4 Early Childhood Education Option
• Added AA 193N, AFAM 141N/ENGL 141N/INART 141N, AMST 150N, APLNG 220N, ARTH 224N/ENGL 224N, CMLIT 109, CMLIT 130, CMLIT 140, CMLIT 153, CMLIT 183Q/SC 183Q, ENGL 103, ENGL 112, ENGL 129, ENGL/SC 142N, ENGL 161N/HIST 162N, ENGL 165N, ENGL/PLSC 183N, ENGL 184, ENGL 185, ENGL 189, ENGL 223N, ENGL 228, ENGL/CHEM 233N, ENGL 236N, ENGL 237N, HDF 254N, LLED 215N to Additional Courses in the PK-4 Early Childhood Education Option
• Removed CMLIT 184, CMLIT 185, CMLIT 189, ENGL 2, ENGL 129H, ENGL 139 from Additional Courses in the PK-4 Early Childhood Education Option
• Added EDUC 320, LLED 420 to Prescribed Courses in the English/Language Arts and Reading (4-8) Option
Using this Bulletin

- Removed EDUC 322, HDFS 239 from Prescribed Courses in the English/Language Arts and Reading (4-8) Option
- Changed the Mathematics (4-8) Option from 32 credits to 29 credits
- Decreased Prescribed Courses in the Mathematics (4-8) Option from 23 credits to 20 credits
- Removed HDFS 239 from Prescribed Courses in the Mathematics (4-8) Option
- Added ENGL 194H to Additional Courses in the Mathematics (4-8) Option
- Removed ENGL 101, ENGL 139 from Additional Courses in the Mathematics (4-8) Option
- Changed the Social Studies (4-8) Option from 30 credits to 27 credits
- Decreased Prescribed Courses in the Social Studies (4-8) Option from 24 credits to 21 credits
- Removed HDFS 239 from Prescribed Courses in the Social Studies (4-8) Option
- Added AA 193N, AFAM/ENGL/INART 141N, AMST 150N, APLNG 220N, ARTH/ENGL 224N, CMLIT 130, CMLIT 140, CMLIT 153, CMLIT 183Q/SC 183Q, ENGL 112, ENGL 142N/SC 142N, ENGL 161N/HIST 162N, ENGL 165N, ENGL 183N/PLSC 183N, ENGL 194H, ENGL 223N, ENGL 236N, ENGL 237N, HDFS 254N, LL ED 215N to Additional Courses in the Social Studies (4-8) Option
- Removed ENGL 2, ENGL 104/JST 104, ENGL 139, ENGL 140 from Additional Courses in the Social Studies (4-8) Option

**Energy Finance, Certificate (ENFIN_UCT)**

**Effective Fall 2022:**
- Revised Program Description
- Added EBF 301 and MET 436 to Required Courses
- Removed FIN 419 from Required Courses

**English, B.A. (University College) (ENGUC_BS)**

**Effective Summer 2022:**
- Enrollment Hold implemented at Wilkes-Barre campus; program not accepting new students at Wilkes-Barre campus

**Information Sciences and Technology, B.S. (Information Sciences and Technology) (ISTBS_BS)**

**Effective Fall 2022:**
- Information Technology: Integration & Application Option phased out at University Park campus

**Information Sciences and Technology, B.S. (Abington, Berks, University College) (ISSAB_BS, ISSBK_BS, ISSUC_BS)**

**Effective Summer 2022:**
- Program phased out at Penn State Abington, the Abington College; Penn State Berks, the Berks College; and University College

**Information Sciences and Technology for Communication Arts and Sciences, Minor (ISCAS_UMNRS)**

**Effective Summer 2022:**
- Program phased out

**Letters, Arts, and Sciences, A.A. (Liberal Arts, Abington, Altoona, Behrend, Berks, Capital, University College) (2LAS_AA, 2LAAB_AA, 2LAAL_AA, 2LABC_AA, 2LABK_AA, 2LACA_AA, 2LAUC_AA)**

**Effective Summer 2022:**
- Program name changed to Multidisciplinary Studies, A.A.

**Letters, Arts, and Sciences, B.A. (Liberal Arts, Abington, Altoona, University College) (LAS BA, LASAB BA, LASAL BA, LASUC BA)**

**Effective Summer 2022:**
- Program name changed to Multidisciplinary Studies, B.A.

**Nutritional Sciences (NUTR_BS)**

**Effective Summer 2022:**
- Added new Integrated B.S. in Nutritional Sciences and M.P.S. in Nutritional Sciences
- Added new Integrated B.S. in Nutritional Sciences and M.P.H. in Public Health

**Occupational Therapy, A.S. (University College, Berks) (2OTUC_AS, 2OTBK_AS)**

**Effective Fall 2022:**
- Revised Entrance to Major Requirements
- Added Retention Requirements
- Increased total requirements for degree completion from 69 credits to 71 credits
- Increased Requirements for the Major from 60 credits to 62 credits
- Increased Prescribed Courses from 57 credits to 59 credits
- Added OT 295B to Prescribed Courses
- Removed KINES 13, OT 395 B from Prescribed Courses
- Changed OT 212 from 3 credits to 4 credits in Prescribed Courses
- Changed OT 214 from 3 credits to 4 credits in Prescribed Courses
- Changed OT 295E from 1 credits to 2 credits in Prescribed Courses

**Organizational Leadership, B.A. (OLBA_BA)**

**Effective Summer 2022:**
- Changed Electives from 21-24 credits to 9-14 credits
- Changed Requirements for the Major from 36-37 credits to 40-41 credits
- Increased Prescribed Courses from 12 credits to 21 credits
- Added OLEAD 201, OLEAD 210, PSYCH 100, PSYCH 484 to Prescribed Courses
- Removed OLEAD 409 from Prescribed Courses
- Increased Additional Courses from 12-13 credits to 16 credits
- Added IST 110, PHIL 10, LHR 202, PSYCH 281, STAT 200, SCM 200, PSYCH 200 to Additional Courses
- Removed MGMT 321, PSYCH 484 from Additional Courses
- Decreased Supporting Courses and Related Areas from 12 credits to 3-4 credits
- Removed CAS 404, CAS 452, CAS 475, CRIM 100, CRIM 113, CRIM 482, LER 100, 136, 201, LER 312, LER 400, LER 434, LER 435, LER 437, LER 458Y, LER 460, MGMT 321, PHIL 103, PHIL 119, PLSC 1, PLSC 490, PSYCH 484, PSYCH 485, SOC 207, SOC 404, SOC 455, SOC 456 from Supporting Courses and Related Areas

**Organizational Leadership, B.S. (OLBS_BS)**

**Effective Summer 2022:**
- Changed Electives from 16-18 credits to 20-21 credits
- Changed Requirements for the Major from 64-66 credits to 61-62 credits
• Added LHR 312, OLEAD 201, OLEAD 210, PSYCH 484 to Prescribed Courses
• Removed CAS 352, ECON 102, ECON 104, OLEAD 409, PHIL 10, PSYCH 281 from Prescribed Courses
• Changed credits for Additional Courses from 12-13 credits to 15 credits
• Added PHIL 10, IST 110, LHR/AFAM/WMNST 136, OLEAD 220, OLEAD 410, OLEAD 411, WMNST 105N, LHR 202, PSYCH 281, LHR 437, BA 100, LHR 427 to Additional Courses
• Removed LER 312, SOC 207, MGMT 321, PSYCH 484 from Additional Courses
• Removed CAS 404, CAS 452, CAS 475, CRIM 100, CRIM 113, CRIM 482, LER 100, LER 136, LER 201, LER 312, LER 400, LER 434, LER 435, LER 437, LER 458Y, LER 460, MGMT 321, PHIL 103, PHIL 119, PLSC 1, PLSC 490, PSYCH 484, PSYCH 485, SOC 207, SOC 404, SOC 455, SOC 456 from Supporting Courses

**Physical Therapist Assistant, A.S. (2PTA_AS)**
**Effective Summer 2022:**
• Program phased out at DuBois campus

**Effective Fall 2022:**
• Revised Entrance to Major Requirements
• Added Retention Requirements
• Decreased Prescribed Courses from 45 credits to 41 credits
• Increased Additional Courses from 16 credits to 20 credits
• Moved PT 395F from Prescribed Courses to Additional Courses
• Added PT 395H and PT 395I to Additional Courses

**Plastics Engineering Technology, B.S. (PLTBC_BS)**
**Effective Summer 2022:**
• Changed Requirements for the Major from 105 credits to 106 credits
• Changed Electives from 2 credits to 1 credit
• Changed PLET 345 from 2 credits to 3 credits in Prescribed Courses

**Russian, B.A. (RUS_BA)**
**Effective Fall 2022:**
• Changed Program Description
• Increased Requirements for the Major from 28 credits to 29 credits
• Decreased Electives from 23 credits to 22 credits
• Increased Prescribed Courses from 13 credits to 17 credits
• Removed RUS 400 from Prescribed Courses
• Added RUS 420 to Prescribed Courses
• Decreased Additional Courses from 15 credits to 12 credits
• Moved RUS 401 from Additional Courses to Prescribed Courses
• Removed RUS 402, RUS 403 from Additional Courses

**Statistics, B.S. (STAT_BS)**
**Effective Summer 2022:**
• Changed total requirements for degree completion from 124 credits to 120 credits
• Changed Requirements for the Major from 80-95 credits to 81-94 credits
• Added 0-1 credits of Electives
• Increased Common Requirements for the Major (All Options) from 38-41 credits to 39-42 credits
• Increased Prescribed Courses for the Major from 37-38 credits to 38-39 credits
• Increased the number of credits for STAT 184 in Prescribed Courses for the Major from 1 credit to 2 credits
• Added STAT 300, STAT 400 to Prescribed Courses for the Major
• Removed STAT 461, STAT 462 from Prescribed Courses for the Major
• Changed STAT 470 to STAT 470W in Prescribed Courses for the Major
• Changed the Actuarial Statistics Option from 53 credits to 48 credits
• Added CMPSC 131, BBH/HPA 440, CMPSC 448, RM 415, RM 420 to Additional Courses in the Actuarial Statistics Option
• Removed CMPSC 202 from Additional Courses in the Actuarial Statistics Option
• Changed Supporting Courses and Related Areas in the Actuarial Statistics Option from 13 credits to 8 credits
• Changed the Applied Statistics Option from 47 credits to 42 credits
• Added CMPSC 131, BBH/HPA 440, CMPSC 448, RM 415, RM 420 to Additional Courses in the Applied Statistics Option
• Removed CMPSC 202 from Additional Courses in the Applied Statistics Option
• Changed Supporting Courses and Related Areas in the Applied Statistics Option from 32 credits to 27 credits
• Changed the Biostatistics Option from 56-57 credits to 50-52 credits
• Added CMPSC 131, BBH/HPA 440, CMPSC 448, RM 415, RM 420 to Additional Courses in the Biostatistics Option
• Removed CMPSC 202 from Additional Courses in the Biostatistics Option
• Changed Supporting Courses and Related Areas in the Biostatistics Option from 19-20 credits to 14-15 credits
• Changed the Graduate Study Option from 47 credits to 42 credits
• Added CMPSC 131, BBH/HPA 440, CMPSC 448, RM 415, RM 420 to Additional Courses in the Graduate Study Option
• Removed CMPSC 202 from Additional Courses in the Graduate Study Option
• Changed Supporting Courses and Related Areas in the Graduate Study Option from 14 credits to 9 credits
• Changed the Statistics and Computing Option from 47 credits to 42 credits
• Added CMPSC 131 and CMPSC 132 to Prescribed Courses in the Statistics and Computing Option
• Removed CMPSC 121 and CMPSC 122 from Prescribed Courses for the Statistics and Computing Option
• Added BBH/HPA 440, CMPSC 448, RM 415, RM 420 to Additional Courses in the Statistics and Computing Option
• Changed Supporting Courses and Related Areas in the Statistics and Computing Option from 14 credits to 9 credits

**Telecommunications and Media Industries, B.A. (TELCM_BA)**
**Effective Summer 2022:**
• Added COMM 170, COMM 305, COMM 388, COMM 482 to Additional Courses
• Removed COMM 242, COMM 404, COMM 492 from Additional Courses
• Added COMM 305 to Supporting Courses and Related Areas
• Removed COMM 403, COMM 411 from Supporting Courses and Related Areas

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 (https://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 the B.A. requirements in the Academic Information (https://bulletins.psu.edu/undergraduate/general-information/academic-information/) section.

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 (https://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. Which Undergraduate Bulletin should I use?
   • Your official record of general education requirements, University degree requirements, and program requirements is found in the Bulletin that matches the semester in which you enrolled at Penn State. See the Archive (https://bulletins.psu.edu/undergraduate/archive/) page to find past Bulletins.

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

8. 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.

9. What course description information is currently showing in the Bulletin?
   • The University Bulletins shows course description data that is active as of the most recently released Schedule of Courses. When an upcoming semester’s Schedule of Courses is released, the course description information is updated on the same day to match that course data. Please visit the Understanding Course Description Information (p. 2) page to view the course description update calendar.

10. Why are there 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 (https://bulletins.psu.edu/programs/#filter=filter_24).

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

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