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A comprehensive introduction to the diversity of RNA molecules and their biological functions with an emphasis on how RNA regulates cellular processes are studied in detail by physical, chemical, and microbial processes, which directly affects the mobility and fate of the contaminants in soil and water.

Traditional A-mode, B-mode, M-mode, Doppler techniques and advanced ultrasound imaging techniques, in detail the Boltzmann transport equation are discussed. Department Managed Prerequisite(s): (Graduate level ME 3320 Minimum Grade of D or Graduate level ME 5320 Minimum Grade of D) or (Graduate level ME 3750 Minimum Grade of D) or (Graduate level ME 5750 Minimum Grade of D).<b> Department Managed Prerequisite(s): (Graduate level FR 5210 Minimum Grade of C or Graduate level FR 5220 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 5200 Minimum Grade of C or Graduate level FR 5220 Minimum Grade of C) or (Graduate level FR 5350 Minimum Grade of C) or (Graduate level FR 5650 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 5650 Minimum Grade of C or Graduate level FR 5670 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 5670 Minimum Grade of C or Graduate level FR 5690 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 5750 Minimum Grade of C or Graduate level FR 5770 Minimum Grade of C).<b> Department Managed Prerequisite(s): 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Department Managed Prerequisite(s): (Graduate level FR 6550 Minimum Grade of C or Graduate level FR 6650 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 6650 Minimum Grade of C or Graduate level FR 6750 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 6750 Minimum Grade of C or Graduate level FR 6850 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 6850 Minimum Grade of C or Graduate level FR 6950 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 6950 Minimum Grade of C or Graduate level FR 7050 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 7050 Minimum Grade of C or Graduate level FR 7150 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 7150 Minimum Grade of C or Graduate level FR 7250 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 7250 Minimum Grade of C or Graduate level FR 7350 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 7350 Minimum Grade of C or Graduate level FR 7450 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 7450 Minimum Grade of C or Graduate level FR 7550 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 7550 Minimum Grade of C or Graduate level FR 7650 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 7650 Minimum Grade of C or Graduate level FR 7750 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 7750 Minimum Grade of C or Graduate level FR 7850 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 7850 Minimum Grade of C or Graduate level FR 7950 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 7950 Minimum Grade of C or Graduate level FR 8050 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 8050 Minimum Grade of C or Graduate level FR 8150 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 8150 Minimum Grade of C or Graduate level FR 8250 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 8250 Minimum Grade of C or Graduate level FR 8350 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 8350 Minimum Grade of C or Graduate level FR 8450 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 8450 Minimum Grade of C or Graduate level FR 8550 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 8550 Minimum Grade of C or Graduate level FR 8650 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 8650 Minimum Grade of C or Graduate level FR 8750 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 8750 Minimum Grade of C or Graduate level FR 8850 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 8850 Minimum Grade of C or Graduate level FR 8950 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 8950 Minimum Grade of C or Graduate level FR 9050 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 9050 Minimum Grade of C or Graduate level FR 9150 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 9150 Minimum Grade of C or Graduate level FR 9250 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 9250 Minimum Grade of C or Graduate level FR 9350 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 9350 Minimum Grade of C or Graduate level FR 9450 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 9450 Minimum Grade of C or Graduate level FR 9550 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 9550 Minimum Grade of C or Graduate level FR 9650 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 9650 Minimum Grade of C or Graduate level FR 9750 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 9750 Minimum Grade of C or Graduate level FR 9850 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 9850 Minimum Grade of C or Graduate level FR 9950 Minimum Grade of C).<b> Department Managed Prerequisite(s): (Graduate level FR 9950 Minimum Grade of C or Graduate level FR 10950 Minimum Grade of C).

This capstone seminar will focus on five properties of human cognition (the 5 Es): embodied, embedded, extended, enactive, and ecological. We will learn about the circular and mutually transformational interactions between mind and environment. Integrated Writing course.

A comprehensive introduction to the diversity of RNA molecules and their biological functions with an emphasis on how RNA regulates cellular processes are studied in detail by physical, chemical, and microbial processes, which directly affects the mobility and fate of the contaminants in soil and water.

Thermodynamics is studied from both the classical (macroscopic) and statistical (microscopic) viewpoints with emphasis on statistical thermodynamics. Property relationships, Maxwell relations, partition functions, distribution functions, kinetic theory and the Boltzmann transport equation are discussed. Department Managed Prerequisite(s): (Undergraduate level ME 3320 Minimum Grade of D or Graduate level ME 5320 Minimum Grade of D) or (Undergraduate level ME 3750 Minimum Grade of D or Graduate level ME 5750 Minimum Grade of D) or (Undergraduate level ME 5750 Minimum Grade of D).
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Title</th>
<th>Department</th>
<th>Type</th>
</tr>
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<tbody>
<tr>
<td>EDS4570</td>
<td>4.5</td>
<td>Inst &amp; Behav Managmt IS</td>
<td>EDS</td>
<td>Lecture</td>
</tr>
<tr>
<td>FIN7810</td>
<td>7.81</td>
<td>Special Studies Fin</td>
<td>FIN</td>
<td>Lecture</td>
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<tr>
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<td>6.17L</td>
<td>Digital Cont Sys Lab</td>
<td>EEE</td>
<td>Lecture</td>
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<tr>
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<td>10.9L</td>
<td>Biology Laboratory</td>
<td>BIO</td>
<td>Lecture</td>
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<tr>
<td>COM4470</td>
<td>4.470</td>
<td>Com Relations in Orgs</td>
<td>COM</td>
<td>Lecture</td>
</tr>
<tr>
<td>GR6510</td>
<td>6.510</td>
<td>Readings in Greek Philos</td>
<td>GR</td>
<td>Lecture</td>
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<tr>
<td>EDT8150</td>
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<tr>
<td>PSB220</td>
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<td>GER4250</td>
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<td>19th Cent German Prose</td>
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<td>Lecture</td>
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<tr>
<td>ME4140</td>
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<td>Mechanical Design I</td>
<td>ME</td>
<td>Lecture</td>
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<tr>
<td>ED3650</td>
<td>3.650</td>
<td>Music Ed Methods Field Exp</td>
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<td>Lecture</td>
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<td>EES6050</td>
<td>6.050</td>
<td>Earth Sci Concept for Ed</td>
<td>EES</td>
<td>Lecture</td>
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<td>8.620</td>
<td>Applied Res for HPA</td>
<td>EDT</td>
<td>Lecture</td>
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<tr>
<td>BME4440</td>
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<td>Biomat</td>
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<tr>
<td>PSY2920</td>
<td>2.920</td>
<td>Hormones and Behavior</td>
<td>PSY</td>
<td>Lecture</td>
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<tr>
<td>ECO7550</td>
<td>7.550</td>
<td>Ec of Health &amp; Health Po</td>
<td>ECO</td>
<td>Lecture</td>
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**Description:**
- **Fall 2022**
- **EDS4570**: Inst & Behav Managmt IS (4.5 credits)
- **FIN7810**: Special Studies Fin (7.81 credits)
- **EE6170L**: Digital Cont Sys Lab (6.17L credits)
- **BIO1090L**: Biology Laboratory (10.9L credits)
- **COM4470**: Com Relations in Orgs (4.470 credits)
- **GR6510**: Readings in Greek Philos (6.510 credits)
- **EDT8150**: Digital PD (8.150 credits)
- **PSB220**: Diversity (9.220 credits)
- **GER4250**: 19th Cent German Prose (4.250 credits)
- **ME4140**: Mechanical Design I (4.140 credits)
- **ED3650**: Music Ed Methods Field Exp (3.650 credits)
- **EES6050**: Earth Sci Concept for Ed (6.050 credits)
- **EDT8620**: Applied Res for HPA (8.620 credits)
- **BME4440**: Biomat (4.440 credits)
- **PSY2920**: Hormones and Behavior (2.920 credits)
- **ECO7550**: Ec of Health & Health Po (7.550 credits)

**Course Details:**
- **EDS4570**: Prepares intervention specialists and other professionals to meet the instructional and behavioral management demands particular to working with individuals with exceptionalities, including those with severe emotional disturbance.
- **FIN7810**: Intensive reading or research in a selected field of advanced finance.
- **EE6170L**: Laboratory supporting EE 6170. Students will experience hands on learning in lab environment. Application and testing of control systems theory with electromechanical systems.
- **BIO1090L**: Biological Laboratory for Natural Science GE/CORE credit.
- **COM4470**: Examines factors that help and hinder effective professional relationships. Aims to increase understanding of interpersonal relationships and apply the knowledge to individual and organizational goals.
- **GR6510**: Plato, Xenophon, Aristotle, Epicurus, Epictetus, and Marcus Aurelius. Topics include pre-Socratics and the development of philosophical vocabulary, the sophistic movement, the Cynic tradition, and the development of popular philosophy. Titles vary.
- **EDT8150**: This is the third (capstone) course in a series of three diversity courses on the integration of multiple identities in human behavior as supported by specific brain mechanisms. Incorporates research from varied disciplines such as cognitive psychology, neuropsychology, neurobiology, philosophy, and computer science.
- **PSY2920**: An overview of hormone-behavior relationship in humans and animals. Topics include sexual differences, puberty, reproductive behavior, parental behavior, aggression, and cognition.
- **ECO7550**: Teaches students how alternative incentive systems and resource allocations affect the health services sector. Emphasis on current institutional arrangements, empirical studies, and policy alternatives.
<table>
<thead>
<tr>
<th>Fall 2022</th>
<th>MIS7400</th>
<th>7400</th>
<th>Undergrad</th>
<th>MIS</th>
<th>Management Information Systems</th>
<th>3</th>
<th>This course introduces the fundamentals of outsourcing information technology and business process activities. The course incorporates the outsourcing lifecycle including identifying needs, mapping activities and processes, establishing metrics and service levels, drafting the statement of work and contract, identifying and selecting vendors, conducting negotiations and finalizing contracts, managing and governing outsourcing relationships, and monitoring services and vendor performance. This course has a fee that is non-refundable once the term begins.</th>
<th>GR</th>
<th>LL</th>
<th>Lecture/Lab Combination</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2022</td>
<td>FAS3800</td>
<td>3800</td>
<td>Undergrad</td>
<td>FAS</td>
<td>Food and Agricultural Systems</td>
<td>3</td>
<td>Application of research principles to solve or improve understanding of a relevant problem in food science or technology.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS6670</td>
<td>6670</td>
<td>Undergrad</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Analysis of governmental structures and processes within modern China, emphasizing both elite and mass politics. Overview of the rise of state socialism and examination of some of the key issues in Chinese politics and society today.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>EES6140</td>
<td>6140</td>
<td>Undergrad</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>4</td>
<td>Optical properties of common minerals. Survey of sedimentary rocks in hand sample, thin section and field occurrence.</td>
<td>GR</td>
<td>LL</td>
<td>Lecture/Lab Combination</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BMS7260</td>
<td>7260</td>
<td>Undergrad</td>
<td>BMS</td>
<td>Biomedical Sciences</td>
<td>2</td>
<td>(Also listed as CHM 6610.) Step-growth and chain-growth polymerization in homogeneous and heterogeneous media; properties of commercial polymers.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PN6600</td>
<td>6600</td>
<td>Undergrad</td>
<td>PN</td>
<td>Physiology &amp; Neuroscience</td>
<td>3</td>
<td>Students will learn the fundamentals of motor control, as well as how to write code in the NEURON simulation environment to develop and run simple computer models of motoneurons under healthy and disease conditions. Students will also learn how to simulate the pathological changes in motoneurons that occur in a number of injury conditions and neurodegenerative diseases, such as spinal cord injury (SCI), multiple sclerosis (MS), and amyotrophic lateral sclerosis (ALS).</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>BME3211R</td>
<td>3211R</td>
<td>Undergrad</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>0</td>
<td>Required recitation for BME 3211.</td>
<td>UG</td>
<td>RE</td>
<td>Recitation</td>
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<td>Fall 2022</td>
<td>EDL8530</td>
<td>8530</td>
<td>Undergrad</td>
<td>EDL</td>
<td>Educational Leadership</td>
<td>3</td>
<td>Multivariate analysis including analysis of variance-factorial designs, repeated measures, analysis of covariance, multiple analysis of variance, multiple regression, and nonparametric techniques.&lt;br&gt;Department Managed Prerequisite(s): Graduate level EDL 7510 Minimum Grade of D and Graduate level EDL 8510 Minimum Grade of D and Graduate level EDL 8520 Minimum Grade of D&lt;br&gt;</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO3100</td>
<td>3100</td>
<td>Undergrad</td>
<td>BIO</td>
<td>Biology</td>
<td>3</td>
<td>The study of biological processes of microorganisms, with emphasis on microorganisms that cause human disease (pathogens).</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CNL6010</td>
<td>6010</td>
<td>Undergrad</td>
<td>CNL</td>
<td>Counseling</td>
<td>3</td>
<td>Presents an overview of the major theoretical approaches to counseling. Key concepts, therapeutic processes, and techniques will be examined. Opportunity will also be available for discussion of philosophical and ethical issues in counseling.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>RHB4020</td>
<td>4020</td>
<td>Undergrad</td>
<td>RHB</td>
<td>Rehabilitation</td>
<td>3</td>
<td>Provides training in comprehensive vocational and career evaluation and assessment strategies. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY4960</td>
<td>4960</td>
<td>Undergrad</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge on fetal behavior including both normal and abnormal (teratological) development. Integrated Writing course.</td>
<td>UG</td>
<td>SE</td>
<td>Seminar</td>
</tr>
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<td>PPH7830</td>
<td>7830</td>
<td>Undergrad</td>
<td>PPH</td>
<td>Public Health</td>
<td>3</td>
<td>This course is an introduction to the development of ethical policies for healthcare institutions. The course will focus on major laws and U.S. Supreme Court decisions affecting health care and the protection of human research subjects. In addition, the course will describe how ethical considerations relate to costs, managed care, resource allocation, and institutional policies. The course concludes with a student-specific capstone project.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS3350</td>
<td>3350</td>
<td>Undergrad</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>General political functions, roles, and structure of the presidential office; limits and opportunities of presidential power; relations with Congress, courts, bureaucracy, the public, and the political party; and presidential personality.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME6870L</td>
<td>6870L</td>
<td>Undergrad</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>0</td>
<td>Required laboratory for ME 6870.</td>
<td>GR</td>
<td>LB</td>
<td>Lab</td>
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<td>Fall 2022</td>
<td>LDR7200</td>
<td>7200</td>
<td>Undergrad</td>
<td>LDR</td>
<td>Leadership</td>
<td>3</td>
<td>Focuses on critical analysis of emerging, contemporary leadership issues. Students apply a broad range of current leadership literature to the research, development, and analysis of case studies.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED6280</td>
<td>6280</td>
<td>Undergrad</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>Teachers certified/licensed in special education, ESL, or bilingual education apply Clay’s literacy processing theory while conducting a case study with an emphasis on assessment, goal setting, individualized instruction, contingent teaching, and acceleration.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<td>Fall 2022</td>
<td>PSY2000</td>
<td>2000</td>
<td>Undergrad</td>
<td>PSY</td>
<td>Psychology</td>
<td>1</td>
<td>A variable elective topic in psychology. Topics vary.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<td>Fall 2022</td>
<td>REL3450</td>
<td>3450</td>
<td>Undergrad</td>
<td>REL</td>
<td>Religion</td>
<td>3</td>
<td>Survey of the various expressions of Daoism in Chinese religious and intellectual history. Includes classical Daoist writings and contemporary expressions of Daoism.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>LDR7010</td>
<td>7010</td>
<td>Theories of Leading</td>
<td>LDR</td>
<td>Leadership</td>
<td>3</td>
<td>Overviews a variety of selected theories about leading, organizing, and organizational change with a focus on how each theoretical approach can inform and influence the practice of leadership in real-world settings. This course has a fee that is non-refundable once the term begins.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>MUS4420</td>
<td>4420</td>
<td>Pedagogy</td>
<td>MUS</td>
<td>Music</td>
<td>1</td>
<td>Fundamental problems involved in studio teaching. Critical analysis of teaching materials. Observation and practice in private teaching required.</td>
<td>UG</td>
<td>IS</td>
<td>Independent Study</td>
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<tr>
<td>Fall 2022</td>
<td>FIN4260</td>
<td>4260</td>
<td>Estate Planning</td>
<td>FIN</td>
<td>Finance</td>
<td>3</td>
<td>Theoretical and practical approach to estate planning. Includes estate and gift taxes, wills, trusts, and estate planning techniques.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<td>Fall 2022</td>
<td>MP3330</td>
<td>3330</td>
<td>Studies in Film Theory</td>
<td>MP</td>
<td>Motion Picture</td>
<td>3</td>
<td>Intensive study in film theory. Topics vary.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<td>Fall 2022</td>
<td>EES3460</td>
<td>3460</td>
<td>Concept Earth</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>4</td>
<td>Processes that impact the Earth system such as volcanic eruptions, global climate change and ice ages, and the resulting interactions between air, land, water and life in the Earth system.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
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<tr>
<td>Fall 2022</td>
<td>ATH5800</td>
<td>5800</td>
<td>Sp Topics in Anth Method</td>
<td>ATH</td>
<td>Anthropology</td>
<td>3</td>
<td>The course will consist of research or some other form of marketing project. The course is offered with the prior approval of the department chair and the supervising marketing faculty member.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>MKT5000</td>
<td>5000</td>
<td>Honors: Ind Study Market</td>
<td>MKT</td>
<td>Marketing</td>
<td>3</td>
<td>Vector treatment of the kinematics and kinetics of particles and rigid bodies, based on Newton's laws and including work-energy and impulse-momentum techniques. Department Managed Prerequisite(s): Undergraduate level ME 2120 Minimum Grade of C and (Undergraduate level ME 1020 Minimum Grade of C or Undergraduate level CS 1160 Minimum Grade of C or Undergraduate level CS 1180 Minimum Grade of C)</td>
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<td>IS</td>
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<td>2210</td>
<td>Dynamics</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>Problem-solving methods in artificial intelligence (AI) with emphasis on heuristic approaches. Topics include knowledge representation, search, intelligent agents, planning, learning, natural language processing, logic, inference, robotics, and case-based reasoning. 3 hours lecture, 2 hours lab. Department Managed Prerequisite(s): Undergraduate level CS 2210 Minimum Grade of D</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>COM2410</td>
<td>2410</td>
<td>Small Group Com</td>
<td>COM</td>
<td>Communication</td>
<td>3</td>
<td>Study Market</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>URS6440</td>
<td>6440</td>
<td>Adv. GIS Apps</td>
<td>URS</td>
<td>Urban Affairs</td>
<td>4</td>
<td>Study of advanced geospatial analysis techniques using ArcView and ArcGIS software. GIS analysis and technology used to describe spatial elements of public and private sector development issues and to forecast change.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO7880</td>
<td>7880</td>
<td>Continuing Enrollment</td>
<td>BIO</td>
<td>Biology</td>
<td>0</td>
<td>Work toward completion of thesis research, completion of written thesis or completion of an internship or residency program.</td>
<td>GR</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED4750</td>
<td>4750</td>
<td>MA Int Pt II: Std Teach</td>
<td>ED</td>
<td>Education</td>
<td>9</td>
<td>Candidates, under the direct supervision of an experienced classroom teacher, are assigned to a school for intensive teaching experience in a grades P-12 classroom.</td>
<td>UG</td>
<td>IN</td>
<td>Internship</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CTE6900</td>
<td>6900</td>
<td>Independent Study</td>
<td>CTE</td>
<td>Career and Technical Education</td>
<td>1</td>
<td>Independent study for CTE candidates. Topics vary.</td>
<td>GR</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUA3120</td>
<td>3120</td>
<td>Applied Music</td>
<td>MUA</td>
<td>Music: Applied Music</td>
<td>1</td>
<td>Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music.</td>
<td>UG</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS8990</td>
<td>8990</td>
<td>Dissertation Defense</td>
<td>CS</td>
<td>Computer Science</td>
<td>1</td>
<td>Examination on the Ph.D. dissertation. The written dissertation is submitted and must be successfully defended in the oral exam that is conducted by the dissertation committee and open to the public.</td>
<td>GR</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHIL2500</td>
<td>2500</td>
<td>Professional Ethics</td>
<td>PHIL</td>
<td>Philosophy</td>
<td>3</td>
<td>Introduction to the theory and practice of professional ethics in its global, economic, environmental, and social context.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG7450</td>
<td>7450</td>
<td>Adv. Comp. Networks</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>3</td>
<td>This course provides an in-depth coverage of advanced computer network architecture, communication and networking technologies. Topics include: Quality of service networking architecture (IntServ, DiffServ, RSVP, Core state-less), packet scheduling, quality of service routing, congestion control, multicast, delay tolerant networking, inter-planetary networking, self-similar traffic analysis, network calculus, overlay networks, peer-to-peer networks, and network security. Department Managed Prerequisite(s): Undergraduate level CEG 4400 Minimum Grade of D or Graduate level CEG 6400 Minimum Grade of D</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4871</td>
<td>4871</td>
<td>Fundamentals of Intel of Intel</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Immerse students in the fundamental aspects of policy analysis used by the United States Intelligence Community. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME3350</td>
<td>3350</td>
<td>Fluid Dynamics</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>Study of fluid properties, fluid statics, continuity and momentum equations, dimensional analysis and similarity, incompressible flows, and real fluid flows. Department Managed Prerequisite(s): Undergraduate level ME 2210 Minimum Grade of D</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS6850</td>
<td>6850</td>
<td>Foundations of AI</td>
<td>CS</td>
<td>Computer Science</td>
<td>3</td>
<td>Problem-solving methods in artificial intelligence (AI) with emphasis on heuristic approaches. Topics include knowledge representation, search, intelligent agents, planning, learning, natural language processing, logic, inference, robotics, and case-based reasoning. 3 hours lecture, 2 hours lab. Department Managed Prerequisite(s): Undergraduate level CS 2210 Minimum Grade of D</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LDR7510</td>
<td>7510</td>
<td>Statistics and Research</td>
<td>LDR</td>
<td>Leadership</td>
<td>3</td>
<td>Introduction to basic statistical methods and data analysis for research and evaluation.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO4840</td>
<td>4840</td>
<td>Biogeography</td>
<td>BIO</td>
<td>Biology</td>
<td>3</td>
<td>Introduction to the factors affecting the distribution of plants and animals.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MLB4010</td>
<td>4010</td>
<td>Topics in Med Lab Sci</td>
<td>MLB</td>
<td>Medical Laboratory Science</td>
<td>0.5</td>
<td>Advanced topics in medical laboratory science of current interest. Topics vary.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CTE4000</td>
<td>4000</td>
<td>Pre-Serv Wksp for CTE</td>
<td>CTE</td>
<td>Career and Technical Education</td>
<td>6</td>
<td>For beginning CTE teachers with occupational experience and limited or no formal training in an education setting. Explores pedagogy, knowledge and skills required for CTE educators.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1290B</td>
<td>1290B</td>
<td>K2O Zumba</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of K2O Zumba. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN3680</td>
<td>6830</td>
<td>Latin American Business</td>
<td>SPN</td>
<td>Spanish</td>
<td>3</td>
<td>This course studies, in both English and Spanish, fundamental concepts of doing business, managing and marketing in Latin America.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHIL4420</td>
<td>4420</td>
<td>Lit and Philosophy</td>
<td>PHIL</td>
<td>Philosophy</td>
<td>3</td>
<td>Study of literary texts with strong philosophical themes, such as philosophy and tragedy or philosophy and science fiction. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG3310</td>
<td>3310</td>
<td>American Texts to 1890</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Representative works of American writers from the colonial era until 1890.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MKT4400</td>
<td>4400</td>
<td>Services Marketing</td>
<td>MKT</td>
<td>Marketing</td>
<td>3</td>
<td>Explores the seven Ps of marketing relating to the marketing of services. Explores emerging theories and strategies for effective implementation.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY5920</td>
<td>5920</td>
<td>Behavioral Neurosci II</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
<td>Learning and memory, reinforcement systems, ingestive behavior, sensory and motor systems, psychopharmacology, and addictive processes.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HST6600</td>
<td>6600</td>
<td>Early American History</td>
<td>HST</td>
<td>History</td>
<td>3</td>
<td>Examines Colonial, Revolutionary, and early Republic periods of American history. Topics vary.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW7680</td>
<td>7680</td>
<td>SW Field Ed Seminar III</td>
<td>SW</td>
<td>Social Work</td>
<td>1</td>
<td>Integrates the Field Education III experiences and coursework. Offered concurrently with advanced generalist fieldwork and competencies.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG4400</td>
<td>4400</td>
<td>Comp Networks &amp; Security</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>4</td>
<td>Introduction to computer networks, network security, and technologies for ensuring network security.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN4800</td>
<td>4800</td>
<td>Business in L. America</td>
<td>SPN</td>
<td>Spanish</td>
<td>3</td>
<td>This course studies, in both English and Spanish, fundamental concepts of doing business, managing, and marketing in Latin America.</td>
<td>UG</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS3460</td>
<td>3460</td>
<td>Public Personnel Admin</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Methods of employment, training, compensation, and employee relations in various levels of civil service.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ISG7300</td>
<td>7300</td>
<td>Practicum in Gifted Ed</td>
<td>ISG</td>
<td>Intervention Specialist Gifted</td>
<td>4</td>
<td>Educators with prior teaching licenses, under the direct supervision of an experienced Intervention Specialist, are assigned to a school for intensive teaching experience in K-12 grade special education.</td>
<td>GR</td>
<td>IN</td>
<td>Internship</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM5210L</td>
<td>5210L</td>
<td>Adv Inqy Syn &amp; Charact</td>
<td>CHIM</td>
<td>Chemistry</td>
<td>2</td>
<td>Advanced synthesis and characterization of representative inorganic compounds.</td>
<td>GR</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL7220</td>
<td>7220</td>
<td>Instruct Mgmt and Eval</td>
<td>EDL</td>
<td>Educational Leadership</td>
<td>3</td>
<td>Strategies for developing and maintaining continual improvement processes using systems planning, instructional data. Includes evaluation of improvement plans and communication of planning and improvement with all stakeholders.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG6326L</td>
<td>6326L</td>
<td>IC Hardware Security&amp;Trust Lab</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>1</td>
<td>Students learn to implement hardware security/trust detection methods using the techniques learned in class and implement countermeasures to improve trust for hardware IC systems through both ASIC and FPGA. Topics include the introduction of Xilinx Vivado and Cadence, and hardware Trojans insertion, hardware Trojans detection in various techniques.</td>
<td>GR</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY4510</td>
<td>4510</td>
<td>Cross-Cul Psy Cap</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge on cross-cultural psychology. Explores national differences in perception, cognition, and self-concept as well as in personality dynamics and interpersonal interactions, and addresses the challenges of globalization. Integrated Writing course.</td>
<td>UG</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR7305</td>
<td>7305</td>
<td>Org. Theory &amp; Dec Mkg</td>
<td>NUR</td>
<td>Nursing</td>
<td>3</td>
<td>Evaluation of the concepts, models, theories, and principles of nursing administration. Provides an in-depth macro focus on organizational theories and behavior applicable to the nurse administrator in a variety of settings.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG5800</td>
<td>5800</td>
<td>Enhancing Creativity</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Cultural mythology about artists often blocks our creativity. This course helps students confront these myths, clear away blocks, and discover and recover their creativity.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MKT4690</td>
<td>4690</td>
<td>Big Data and Predictions</td>
<td>MKT</td>
<td>Marketing</td>
<td>3</td>
<td>Students learn specific data analytic methodologies such as predictive analytics, data mining, text mining, sentiment analysis, topic analysis and Big Data related applications. This course is largely practice oriented, with students learning experientially by being introduced to cutting-edge marketing analytical tools, and then applying them through in-class exercises and case analyses, generating data-driven managerial recommendations.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN5440</td>
<td>5440</td>
<td>Spanish Amer Culture</td>
<td>SPN</td>
<td>Spanish</td>
<td>3</td>
<td>A comprehensive review of the diverse cultures of Hispanic America.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Description</td>
<td>Prerequisite(s)</td>
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<tr>
<td>EES3180L</td>
<td>3</td>
<td>Water &amp; the Environment Lab</td>
<td>Required laboratory for EES 3180.</td>
<td>UG LB Lab</td>
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<tr>
<td>EES9730</td>
<td>9730</td>
<td>Perspectives on Educ</td>
<td></td>
<td>GR SE Seminar</td>
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<tr>
<td>ME6800</td>
<td>6800</td>
<td>Metal Forming ME</td>
<td>Fundamentals of principal deformation processing systems including forging, extrusion, rolling, and sheet forming;</td>
<td>GR LL Lecture/Lab Combinato</td>
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<tr>
<td>EDT7240</td>
<td>7240</td>
<td>Teach 21st Century Skill EDT</td>
<td>Teaching 21st century skills, collaborating with classroom teachers, standards alignment, and evidence-based practice.</td>
<td>GR LL Lecture/Lab Combinato</td>
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<tr>
<td>EGR4980</td>
<td>4980</td>
<td>Special Topics in EGR EGR</td>
<td>Special topics in Engineering and Computer Science.</td>
<td>UG PKG Combinato</td>
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<tr>
<td>MUE2770</td>
<td>2770</td>
<td>Chamber Orchestra MUE</td>
<td></td>
<td>UG LL Lecture/Lab Combinato</td>
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<tr>
<td>KNH1620B</td>
<td>1620B</td>
<td>Stretch &amp; Tone/Pilates KNH</td>
<td>Fundamental skills and knowledge of Stretch &amp; Tone/Pilates. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG LB Lab</td>
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<tr>
<td>ANT7550</td>
<td>7550</td>
<td>Practicum Literature Review ANT</td>
<td>Students will independently create the document, with input from a faculty mentor who will guide the development of the outline and provide feedback on drafts of the individual sections. The final complete document will be reviewed and feedback will be provided by a committee of three faculty, including the mentor. The student will have the opportunity for 1 rewrite, after which the committee will grade the final document.</td>
<td>GR PR Practicum</td>
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<tr>
<td>MUA1100</td>
<td>1100</td>
<td>Applied Music MUA</td>
<td>Applied music instruction is available to the general student, regardless of major. Section number designates applied area. Audition required. Half-hour lesson only. Enrollment limited. Department permission required.</td>
<td>UG IS Independent Study</td>
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<tr>
<td>PLS6420</td>
<td>6420</td>
<td>Criminal Justice Systems PLS</td>
<td>Survey of the American criminal justice system concentrating on political aspects. Topics include police, judges, attorneys, supreme court decisions, crime, and public opinion.</td>
<td>GR LE Lecture</td>
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<tr>
<td>CHM3510L</td>
<td>3510L</td>
<td>Physical Chm Lab</td>
<td></td>
<td>UG LB Lab</td>
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<tr>
<td>CHM7020</td>
<td>7020</td>
<td>Res Perspectives Chem CHM</td>
<td>Lecture/reading course to acquaint new graduate students with the research being carried out by the faculty in the Department of Chemistry.</td>
<td>GR LE Lecture</td>
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<tr>
<td>CS7810</td>
<td>7810</td>
<td>Meta Represent Languages CS</td>
<td>The course provides an introduction to how to represent knowledge and how to use it for automated reasoning. Currently, the primary focus is on Knowledge Representation for the Semantic Web, and as such representation languages for Ontologies will be covered in depth.</td>
<td>GR LE Lecture</td>
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<tr>
<td>BUS4000</td>
<td>4000</td>
<td>Applied Business Plan BUS</td>
<td></td>
<td>UG PR Practicum</td>
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<tr>
<td>MTH6140</td>
<td>6140</td>
<td>Mathematical Software MTH</td>
<td>Solving scientific problems using computational software packages MATLAB and Mathematica, including procedural and functional programming.</td>
<td>GR LE Lecture</td>
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<tr>
<td>ME3870L</td>
<td>3870L</td>
<td>Machining Lab ME</td>
<td>Students will learn the basics of milling and turning operations in a project-based environment. Students will also be instructed on machine safety and machine operation. Discussion of tolerancing and CNC processes are also covered.</td>
<td>UG LB Lab</td>
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<tr>
<td>BIO2120</td>
<td>2120</td>
<td>Cell Biology BIO</td>
<td>Eukaryotic cell structure and function, including energetics and involvement of various organelles.</td>
<td>UG LE Lecture</td>
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<tr>
<td>BIO4060</td>
<td>4060</td>
<td>Evolutionary Biology BIO</td>
<td>Critically examines modern evolutionary research, with focus on recent theoretical and empirical developments. Topics include speciation and species definitions, phylogeny, phylogenetic biology, molecular evolution, adaptation and natural selection, and sexual selection. Integrated Writing course.</td>
<td>UG LE Lecture</td>
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<tr>
<td>PSY6440</td>
<td>6440</td>
<td>Work Stress Capstone PSY</td>
<td>Communication-intensive seminar integrating knowledge on work stress.</td>
<td>GR SE Seminar</td>
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<tr>
<td>HST4700</td>
<td>4700</td>
<td>20th-century US History HST</td>
<td>Examines particular stages of the 20th-century American experience (e.g., the Progressive Era) or selected topics (e.g., the Civil Rights Movement). Topics vary. Integrated Writing course.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>MTH7990</td>
<td>7990</td>
<td>Selected Topics</td>
<td>MTH</td>
<td>Mathematics</td>
<td>1</td>
<td>Selected topics in mathematics.</td>
<td>GR</td>
<td>IS</td>
<td>Independent (1 Study)</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EC4600</td>
<td>4600</td>
<td>Economics of Sports</td>
<td>EC</td>
<td>Economics</td>
<td>3</td>
<td>Applications of economic principles to professional and intercollegiate sports.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES5990</td>
<td>5990</td>
<td>Spec Probs Earth Env Sci</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>0.5</td>
<td>Research and problems designed for specific needs and talents of students at the graduate level. May be taken for a letter grade or pass/unsatisfactory.</td>
<td>GR</td>
<td>IS</td>
<td>Independent (1 Study)</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SAA6670</td>
<td>6670</td>
<td>Career Dev Adv/Assess</td>
<td>SAA</td>
<td>Student Affairs in Higher Ed</td>
<td>3</td>
<td>Focus of the course will be on developing the helping relationship, career planning strategies, applying career development models and theories to cases, and understanding how different types of career assessments aid or hinder the career development process.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY330L</td>
<td>330L</td>
<td>Personality Research Mth Lab</td>
<td>PSY</td>
<td>Psychology</td>
<td>0</td>
<td>Required laboratory for PSY 3330. Integrated Writing course.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ABS7601</td>
<td>7601</td>
<td>Sem CJ Research</td>
<td>ABS</td>
<td>Applied Behavioral Science</td>
<td>1</td>
<td>In-depth coverage of special topics in applied behavioral science/criminal justice with an emphasis on theory, methods, and research. Topics vary. 1-2 credit hours</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHY7890</td>
<td>7890</td>
<td>Continuing Registration</td>
<td>PHY</td>
<td>Physics</td>
<td>1</td>
<td></td>
<td>GR</td>
<td>IS</td>
<td>Independent (1 Study)</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATH5710</td>
<td>5710</td>
<td>Ethnographic Methods</td>
<td>ATH</td>
<td>Anthropology</td>
<td>3</td>
<td>Explores the meaning, scope and dilemmas of ethnography using both a hands-on ethnographic project and a wide array of readings.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDS6731</td>
<td>6731</td>
<td>Professional Seminar: MM</td>
<td>EDS</td>
<td>Education - Special Education</td>
<td>0.5</td>
<td>Seminar focus will prepare candidates for state licensure requirements. Topics include: planning for instruction and assessment, instruction and engaging learners, assessing learning, and creating a portfolio.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>DAN1220</td>
<td>1220</td>
<td>Jazz for MT2</td>
<td>DAN</td>
<td>Dance</td>
<td>1</td>
<td>Group class introduces Musical Theatre majors to fundamentals of jazz and modern dance technique.</td>
<td>UG</td>
<td>ST</td>
<td>Studio</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HST6850</td>
<td>6850</td>
<td>Approaches to History</td>
<td>HST</td>
<td>History</td>
<td>3</td>
<td>Examines approaches to the study of history and historical methodology. Topics vary.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY3530</td>
<td>3530</td>
<td>Social Psychology Mth</td>
<td>PSY</td>
<td>Psychology</td>
<td>4</td>
<td>Laboratory course in methods and problems involved in social psychology research. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GER3110</td>
<td>3110</td>
<td>German Conversation I</td>
<td>GER</td>
<td>German</td>
<td>3</td>
<td>Emphasis on the culture of the German-speaking world.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS6050</td>
<td>6050</td>
<td>Pol Polarization Am Poltics</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Explores the causes and consequences of the deepening political divide in the U.S. Evaluates the role played by political elites and institutions such as the media and political parties in furthering political division.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG6500</td>
<td>6500</td>
<td>Computer Graphics</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>3</td>
<td>Raster graphics algorithms, geometric primitives and their attributes, clipping, antialiasing, geometric transformations, structures and hierarchical models, input devices, and interactive techniques. Students develop interrelated programs to design a three-dimensional hierarchical model, manipulate, and view it.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME6680</td>
<td>6680</td>
<td>Experimental Nanoscience</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>This course will provide a series of laboratory experiments similar to the state-of-the-art R&amp;D in nanotechnology and nanoscience. The experiments include 1) fabrication of nanomaterials such as metal nanoparticles and graphene nanoplatelets; 2) characterization of physical and chemical properties by using techniques such as Raman spectroscopy, atomic force microscopy, terahertz spectroscopy, electrochemical analyses etc; and 3) computational modeling of nanoscale physical phenomena.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GER3510</td>
<td>3510</td>
<td>German Civilization</td>
<td>GER</td>
<td>German</td>
<td>3</td>
<td>Survey of the contribution of German-speaking people to world culture in art, music, science, education, philosophy, and religion. Taught in German.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG7510</td>
<td>7510</td>
<td>TESOL: SpeakListen</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Understanding and further developing the theory and practice of teaching listening and speaking, including issues of pronunciation, to speakers of English as a second, foreign, or international language.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EC7890</td>
<td>7890</td>
<td>Continuing Registration</td>
<td>EC</td>
<td>Economics</td>
<td>1</td>
<td></td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO6410</td>
<td>6410</td>
<td>Behavioral Ecology</td>
<td>BIO</td>
<td>Biology</td>
<td>3</td>
<td>This course will focus on how and why animals behave the way they do. In particular, we will study how an individual's behavior contributes to its survival and reproductive success (i.e., why do particular behaviors evolve?) and how the environment influences optimal behavioral strategies (i.e., what is the ecological basis of behavior?). This course has a large theoretical component, but we will also examine some real behaviors as case studies.</td>
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<tr>
<td>Fall 2022</td>
<td>MTH1280</td>
<td>1280</td>
<td>College Algebra</td>
<td>MTH</td>
<td>Mathematics</td>
<td>4</td>
<td>Graphs and equations for linear, polynomial, rational, exponential, and logarithmic functions, and systems of equations.</td>
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<tr>
<td>Fall 2022</td>
<td>EE6480</td>
<td>6480</td>
<td>Remote Sensing Det &amp; Sys</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>4</td>
<td>Learn to analyze and design electro-optic (EO), infrared (IR), and microwave (radar) detection systems commonly used in remote sensing. Topics include remote sensing applications, electromagnetic wave theory, black body radiation, optics and imaging systems, EO, IR and radar detector design specifications, basic detection and estimation theory, and basic laboratory measurements with EO, IR and radar detectors. Department Managed Prerequisite(s): Graduate level EE 5450 Minimum Grade of C</td>
<td>&lt;b&gt;</td>
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<tr>
<td>Fall 2022</td>
<td>ENG4200</td>
<td>4200</td>
<td>Studies in British Lit</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Intensive study of British literary history and/or the work of individual British writers. Intended to develop an understanding of literature within the context of the author’s life, literary production, and historical background. Integrated Writing course.</td>
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<tr>
<td>Fall 2022</td>
<td>ITL7900</td>
<td>7900</td>
<td>Int'l Continued Registration</td>
<td>ITL</td>
<td>Int'l Continued Registration</td>
<td>0</td>
<td>International students in graduate programs requiring a thesis or dissertation and who have completed all degree requirements may register for ITL 799. This course is not graded and does not carry a tuition charge.</td>
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<tr>
<td>Fall 2022</td>
<td>ENG7900</td>
<td>7900</td>
<td>Continuing Registration</td>
<td>ENG</td>
<td>English</td>
<td>1</td>
<td>Limited to students who have completed coursework toward the degree but who must maintain registered status, e.g. in any quarter prior to graduation in which the department is affording some service, such as advising toward and evaluating the graduate portfolio, reading a thesis, or giving advice on the thesis after completion of all other requirements of course work and research.</td>
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<tr>
<td>Fall 2022</td>
<td>ED5000</td>
<td>5060</td>
<td>MCE Gen Soc Studies Inst</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>Methods for teaching 4th, 5th, and 6th grades social studies pertinent to the Ohio Learning Standards with emphasis on content, developmentally appropriate pedagogy, curricula, and materials.</td>
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<tr>
<td>Fall 2022</td>
<td>IHE6400</td>
<td>6400</td>
<td>Engr Econ</td>
<td>IHE</td>
<td>Industrial &amp; Hum Fac Engr</td>
<td>3</td>
<td>Introduction to analytical methods and techniques for optimizing the economic outcome of technical and managerial decisions. Includes time value of money, annual costs, present worth, future value, capitalized cost break-even analysis, and valuation and depreciation.</td>
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<tr>
<td>Fall 2022</td>
<td>SAA4110</td>
<td>4110</td>
<td>Spol Topics: Campus Pgrm in Higher Ed</td>
<td>SAA</td>
<td>Student Affairs</td>
<td>1</td>
<td>Topics related to the development of student organizations and student leaders.</td>
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<tr>
<td>Fall 2022</td>
<td>ENG4900</td>
<td>4900</td>
<td>Internship in Teaching</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Supervised college-level teaching or tutoring.</td>
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<tr>
<td>Fall 2022</td>
<td>NUR3420C</td>
<td>3420C</td>
<td>Nur Care Mental Health Clin</td>
<td>NUR</td>
<td>Nursing</td>
<td>0</td>
<td>Required clinical for NUR 3420.</td>
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<tr>
<td>Fall 2022</td>
<td>HST7460</td>
<td>7460</td>
<td>Seminar Mod Military Hist</td>
<td>HST</td>
<td>History</td>
<td>3</td>
<td>Examines aspects of the history of military affairs in Europe, the United States, and/or the wider world from the 16th century to the present. Topics vary.</td>
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<tr>
<td>Fall 2022</td>
<td>PHL4810</td>
<td>4810</td>
<td>Independent Study</td>
<td>PHL</td>
<td>Philosophy</td>
<td>1</td>
<td>Faculty-directed, individualized study on student-selected topics. Limited to majors and advanced students. Permission of department and a minimum 3.0 GPA required.</td>
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<tr>
<td>Fall 2022</td>
<td>MTH7770</td>
<td>7770</td>
<td>Applied Analysis</td>
<td>MTH</td>
<td>Mathematics</td>
<td>4</td>
<td>Fixed point theorems and applications, Banach and Hilbert spaces and applications, compact operators, eigenvalues, eigenfunction expansions, Sturm-Liouville problems, inverse operators, variational methods, and basic approximate methods in analysis. Department Managed Prerequisite(s): Undergraduate level MTH 3710 Minimum Grade of D</td>
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<tr>
<td>Fall 2022</td>
<td>HST4950</td>
<td>4950</td>
<td>Independent Readings</td>
<td>HST</td>
<td>History</td>
<td>1</td>
<td>Faculty-directed readings in a field of students' choice.</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>CHM7480</td>
<td>7480</td>
<td>Syn Org Reactions</td>
<td>CHM</td>
<td>Chemistry</td>
<td>2</td>
<td>Systematic treatment of organic reactions including, where applicable, some theoretical basis for the nature of the reaction. Emphasis on the uses of these reactions in organic synthesis.</td>
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<tr>
<td>Fall 2022</td>
<td>ENG3510</td>
<td>3510</td>
<td>Content Writing Pedagogy</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Introduction to teaching writing process strategies for middle childhood majors. Department Managed Prerequisite(s): Undergraduate level ENG 2100 Minimum Grade of C</td>
<td>&lt;b&gt;</td>
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<tr>
<td>Fall 2022</td>
<td>ART6170</td>
<td>6170</td>
<td>Adv St Non Western Art</td>
<td>ART</td>
<td>Art</td>
<td>3</td>
<td>Intensive studies of periods, major movements, and artists in non-Western art. Titles vary.</td>
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</tr>
<tr>
<td>Fall 2022</td>
<td>ENG2020</td>
<td>2020</td>
<td>Topics in Writing</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Exploration of topics and approaches in the field of Writing with focus on developing mastery and enjoyment of the writing process.</td>
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<tr>
<td>Fall 2022</td>
<td>REL2070</td>
<td>2070</td>
<td>Western Religions</td>
<td>REL</td>
<td>Religion</td>
<td>3</td>
<td>General introduction to the major religious traditions of Judaism, Christianity, Islam, and other selected religious traditions.</td>
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<tr>
<td>Fall 2022</td>
<td>KNH7120</td>
<td>7120</td>
<td>Motor Dev: Low Incidence</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>3</td>
<td>Understand how disabilities impact psychomotor development, ADL, mobility, and independence of individuals with disabilities. Knowledge of activities that contribute to an active lifestyle.</td>
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<tr>
<td>Fall 2022</td>
<td>PHY4450</td>
<td>4450</td>
<td>Teaching Physical Sci</td>
<td>PHY</td>
<td>Physics</td>
<td>3</td>
<td>Pedagogical content knowledge and skills necessary to teach physical science. Includes an analysis of the high school physics curriculum and detailed development of teaching strategies for most physical science topics.</td>
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<tr>
<td>Fall 2022</td>
<td>FAS3200</td>
<td>3200</td>
<td>Sustainable Agriculture</td>
<td>FAS</td>
<td>Food and Agricultural Systems</td>
<td>3</td>
<td>Exploration of sustainable practices of agroecosystems. Course content will include abiotic factors, plant growth patterns and cycles, identification and strategic management of vegetation within grazing systems, nutrient cycles within the environment, and Best Management Practices to promote environmental stewardship. Integrated Writing course.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>IHE6320</td>
<td>6320</td>
<td>Hum Sys Int&amp;Dispr Thvk Princip</td>
<td>IHE</td>
<td>Industrial &amp; Hum Fac Engr</td>
<td>3</td>
<td>Focus on understanding the iterative user-centered design and development approach for user interface design and user experience assessment. This course is designed as an active learning versus passive learning experience. Students are responsible for exploring and gathering relevant information and then constructing personally meaningful projects that add to individual knowledge and experience. Department Managed Prerequisites(s): Graduate level IHE 6300 Minimum Grade of C</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>IHE6510</td>
<td>6510</td>
<td>Comp Appl in IHE</td>
<td>IHE</td>
<td>Industrial &amp; Hum Fac Engr</td>
<td>3</td>
<td>Provides students with an overview for designing and implementing ISE-focused solutions using R. Of interest are applications of operations research, specifically of probabilities, inventory models, simulation and optimization, forecasting, data analytics, and decision support system (GUI/HTML interface). Department Managed Prerequisites(s): Graduate Level IHE 6711 Minimum Grade of C</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN6710</td>
<td>6710</td>
<td>Spanish As a World Lang</td>
<td>SPN</td>
<td>Spanish</td>
<td>3</td>
<td>Linguistic and social history of the Spanish language. Language variation in Spain, Latin America, United States, and other areas of the world where Spanish is spoken.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL7710</td>
<td>7710</td>
<td>Ldrshp Schl Improvement</td>
<td>EDL</td>
<td>Educational Leadership</td>
<td>3</td>
<td>The course focuses on the development of a deep understanding of organizational structure, leadership theory, and skill development in leadership, communication, decision making, and problem solving. A continuous improvement mindset and the change process are the foundation for strategies that are discussed regarding distributed leadership, team development, motivation, and school culture.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR7213</td>
<td>7213</td>
<td>AG AC Diagnostic Procd.</td>
<td>NUR</td>
<td>Nursing</td>
<td>2</td>
<td>This course provides theoretical knowledge and emphasizes psychomotor skills necessary to provide selected diagnostic and treatment modalities in acute/critical care settings.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MIS3840</td>
<td>3840</td>
<td>Data Vis for Business</td>
<td>MIS</td>
<td>Management Information Systems</td>
<td>3</td>
<td>Introduce students to data visualization in business including both the principles and techniques. Students will learn the value of visualization, specific techniques in information visualization and scientific visualization, and understand how to best leverage visualization methods.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDS7210</td>
<td>7210</td>
<td>Practicum: Int Spec Mild/Mod</td>
<td>EDS</td>
<td>Education - Special Education</td>
<td>2</td>
<td>Candidates with prior teaching license(s), under the direct supervision of an experienced intervention specialist, are assigned to a school for intensive teaching experience in K-12 special education for students with mild/moderate needs.</td>
<td>GR</td>
<td>IN</td>
<td>Internship</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED9000</td>
<td>9000</td>
<td>Learning Thesis</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>This course guides implementation of individual Masters thesis projects in education. The course includes inquiry and data gathering through analysis and solution identification, writing of thesis, and formal presentation.</td>
<td>GR</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS6180</td>
<td>6180</td>
<td>Politics and Ethics</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Philosophical and legal foundations for regulating ethics among public officials.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME6940</td>
<td>6940</td>
<td>Mech &amp; Mat EGR Intern</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>Department internship course. Students are supervised via weekly seminars and regular feedback from employer.</td>
<td>GR</td>
<td>IN</td>
<td>Internship</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>COM1010</td>
<td>1010</td>
<td>Essential Public Address</td>
<td>COM</td>
<td>Communication</td>
<td>3</td>
<td>Fundamentals of verbal and nonverbal communication in platform speaking. Discussion and practice in vocal and physical delivery and in purposeful organization and development of a speech.</td>
<td>UG</td>
<td>LL</td>
<td>Lecture/Lab Combinatio n</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO6990</td>
<td>6990</td>
<td>Special Prob in Biology</td>
<td>BIO</td>
<td>Biology</td>
<td>1</td>
<td>All assignments, reading material, and experimentation are determined by instructor. Typically, instructional material will be derived from primary research literature and writing a critical review paper will be required. This does not discount inclusion of relevant laboratory or field exercises. Instruction will generally consist of one-on-one, student/instructor discussions and mentoring.</td>
<td>GR</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CNL8000</td>
<td>8000</td>
<td>Human Sexuality Counsel</td>
<td>CNL</td>
<td>Counseling</td>
<td>3</td>
<td>The principles and practice of human sexuality and sexuality counseling are reviewed. A major focus of the course is the application and integration of theories and principles of sexuality counseling with couples.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUA4110</td>
<td>4110</td>
<td>Applied Music</td>
<td>MUA</td>
<td>Music: Applied Music</td>
<td>1</td>
<td>Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music.</td>
<td>UG</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED7070</td>
<td>7070</td>
<td>Math Inst Grades 4-8</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>Curriculum and materials for teaching middle level mathematics pertinent to the Ohio's New Learning Standards with emphasis on content, developmentally appropriate pedagogy, curriculum and materials suitable for teaching fourth, fifth and sixth grade mathematics education.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM4210R</td>
<td>4210R</td>
<td>Adv Inorganic Syn Rec</td>
<td>CHM</td>
<td>Chemistry</td>
<td>0</td>
<td>Required recitation for CHM 4210.</td>
<td>UG</td>
<td>RE</td>
<td>Recitation</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY8760</td>
<td>8760</td>
<td>Job Performance</td>
<td>PSY</td>
<td>Psychology</td>
<td>2</td>
<td>Seminar with in-depth coverage of job performance. Topics will include: dimensionality of job performance, measurement techniques and common errors, and various other IO and HF topics related to job performance.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL4100</td>
<td>4100</td>
<td>Seminar on Judaism</td>
<td>REL</td>
<td>Religion</td>
<td>3</td>
<td>Topics Vary. Integrated Writing course.</td>
<td>UG</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HPR2800</td>
<td>2800</td>
<td>Intro to Education</td>
<td>HPR</td>
<td>Health Phy Educ &amp; Recreation</td>
<td>3</td>
<td>Orientation to the teaching profession and pluralistic American society as well as an awareness of the global community.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>Course Code</td>
<td>Course Title</td>
<td>Department</td>
<td>Credits</td>
<td>Description</td>
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<tr>
<td>PTX7011</td>
<td>7011</td>
<td>Thesis Develop Workshop</td>
<td>Pharmacology/Toxology</td>
<td>1</td>
<td>Students will learn how to develop thesis proposals and how to present research projects. Students will learn about requirements and receive instructions for preparing oral proposals. A step-by-step program will guide students toward assembling complete presentations.</td>
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<tr>
<td>BMS8030</td>
<td>8030</td>
<td>Pathogenic Microbiology</td>
<td>Biomedical Sciences</td>
<td>4</td>
<td>(Also listed as M&amp;I 7270.) Microorganisms pathogenic for humans and animals using the organ system approach. Emphasis on mechanisms of pathogenesis and host resistance. Includes a project segment devoted to the independent study of the mechanisms of pathogenesis in the host-parasite interactions of the infectious agents used.</td>
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<tr>
<td>PLS4530</td>
<td>4530</td>
<td>Politics of Russia</td>
<td>Political Science</td>
<td>3</td>
<td>Examines the political life in Russia and the former Soviet Union, with emphasis on the legacy of communism and the role of economics and politics in the transition to democracy. Integrated Writing course.</td>
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<tr>
<td>PLS3450</td>
<td>3450</td>
<td>Public Administration</td>
<td>Political Science</td>
<td>3</td>
<td>Nature and scope of public administration, administrative law, and public interest in the administrative process.</td>
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<tr>
<td>ME6700</td>
<td>6700</td>
<td>Structure &amp; Properties of Materials</td>
<td>Mechanical and Materials Engineering</td>
<td>3</td>
<td>Effect of microstructure, phase equilibrium, and processing on properties of structural materials including metallic alloys, polymers, and composites.</td>
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<tr>
<td>FR3120</td>
<td>3120</td>
<td>French Conv and Society</td>
<td>French</td>
<td>3</td>
<td>Practice in oral use of French emphasizing the culture of the French-speaking world. Taught in French.</td>
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<tr>
<td>PLS6940</td>
<td>6940</td>
<td>Special Topics</td>
<td>Political Science</td>
<td>3</td>
<td>Advanced study of a selected topic of contemporary political significance.</td>
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<tr>
<td>CTE6000</td>
<td>6000</td>
<td>Pre-Serv Wksp for CTE</td>
<td>Career and Technical Education</td>
<td>6</td>
<td>For beginning CTE teachers with occupational experience and limited or no formal training in an education setting. Explores teaching pedagogy, knowledge and skills required for new role as CTE educator.</td>
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<tr>
<td>PN8600</td>
<td>8600</td>
<td>Prn Biomedical Research</td>
<td>Physiology &amp; Neuroscience</td>
<td>1</td>
<td>Principles of Biomedical Research is appropriate for students that will be involved in biomedical research. PBR provides a lecture and student interactive series designed to introduce students to the basics of biomedical research.</td>
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<tr>
<td>CS1160</td>
<td>1160</td>
<td>Intro to Comp Program</td>
<td>Computer Science</td>
<td>4</td>
<td>Basic concepts of programming using the Python programming language.</td>
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<tr>
<td>IHE7510</td>
<td>7510</td>
<td>Data Mining</td>
<td>Industrial &amp; Human Fac Engr</td>
<td>3</td>
<td>Concepts, techniques, and applications of data mining. In addition, students will get hands-on data mining experience through projects.</td>
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<tr>
<td>EE6800L</td>
<td>6800L</td>
<td>Special Topics in EE Lab</td>
<td>Electrical Engineering</td>
<td>1</td>
<td>Laboratory for EE 6800.</td>
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<tr>
<td>IDL5110</td>
<td>5110</td>
<td>Digital Teaching Tools</td>
<td>Instructional Design &amp; Learning</td>
<td>3</td>
<td>This class is designed for educators to learn how to integrate educational technology tools in the classroom to enhance students' learning.</td>
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<tr>
<td>KNH1300A</td>
<td>1300A</td>
<td>Hiking</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Hiking. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
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<tr>
<td>GR4530</td>
<td>4530</td>
<td>Readings Greek &amp; Biog</td>
<td>Greek</td>
<td>3</td>
<td>Herodotus, Thucydides, Xenophon, Polybius, and Plutarch. Topics include methods of composition, influences on historiography from the sophists and philosophers, the development of Greek historical writing, and supplemental evidence from inscriptions and nonliterary sources. Titles vary.</td>
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<tr>
<td>AES4700</td>
<td>4700</td>
<td>ECL Lab</td>
<td>Aerospace Studies</td>
<td>0</td>
<td>Students who have completed Professional Officer coursework but are not yet eligible to graduate enroll in this course to remain proficient until they graduate.</td>
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<tr>
<td>ED3700</td>
<td>3700</td>
<td>Comm Arts for Ed</td>
<td>Education</td>
<td>3</td>
<td>Examine, design, and present speeches and media projects for a variety of purposes, occasions, and audiences.</td>
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<tr>
<td>ACC7930</td>
<td>7930</td>
<td>Advanced Accounting</td>
<td>Accountancy</td>
<td>3</td>
<td>To study the accounting principles and techniques used to consolidate parent and subsidiary companies at the date of combination and in subsequent periods.</td>
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<tr>
<td>ANT2120</td>
<td>2120</td>
<td>Human Anatomy &amp; Phys II</td>
<td>Anatomy</td>
<td>4</td>
<td>Introductory survey of the anatomy and physiology of the human body with an emphasis on clinical applications. Endocrine system, cardiovascular system, lymphatic system, respiratory system, acid-base balance, fluid balance, reproductive system and digestive system. Laboratory exercises use human donors.</td>
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<tr>
<td>SPN6120</td>
<td>6120</td>
<td>SPN Instr Practicum II</td>
<td>Spanish</td>
<td>1</td>
<td>Peer teachers observe and assist in elementary and/or intermediate level classes; continuation of practicum from SPN 6110.</td>
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<tr>
<td>LAT6810</td>
<td>6810</td>
<td>Indepen Reading in Latin</td>
<td>Latin</td>
<td>1</td>
<td>Reading and discussion of selected works of Latin literature with emphasis on grammatical, rhetorical, literary, and cultural analysis and criticism. May be repeated for credit by number, but not by content.</td>
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<tr>
<td>KNH1140</td>
<td>1140</td>
<td>Dance: Ballroom</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Dance: Ballroom. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
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<tr>
<td>KNH1540</td>
<td>1540</td>
<td>Self Defense for Women</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Self Defense for Women. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Department/Center</td>
<td>Credit Hours</td>
<td>Description</td>
<td>Type</td>
<td>Level</td>
<td>Meeting Format</td>
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<tr>
<td>HST4840</td>
<td>Study of advanced geo-spatial analysis techniques using ArcView and ArcGIS software. GIS analysis and technology</td>
<td>Geography</td>
<td>3</td>
<td>This course will describe current state-of-the-art experimental and analytical techniques in the area of systems biology. The covered topics include genomics, proteomics, RNA expression, metabolite measurements, and molecular ecology.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>FR6130</td>
<td>FR Instruct Practicum III</td>
<td>French</td>
<td>1</td>
<td>Peer observers observe elementary and/or intermediate level classes. Continuation of practicum from FR 6120.</td>
<td>GR</td>
<td>PR</td>
<td>Practicum</td>
<td></td>
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<tr>
<td>CNL7320</td>
<td>Social Justice Counseling</td>
<td>Counseling</td>
<td>3</td>
<td>Examines oppressive practices within clinical mental health and school counseling settings, and presents evidence-based culturally sensitive interventions and prevention strategies based on public health principles.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>KNH1750</td>
<td>Intro Distance Running</td>
<td>KNH</td>
<td>2</td>
<td>Fundamental skills and knowledge of distance running. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
<td></td>
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<tr>
<td>DAN4210</td>
<td>Jazz/Theatre Dance IV</td>
<td>DAN</td>
<td>2</td>
<td>Diversified styles and techniques of advanced jazz/musical theatre dancing. Emphasis on the continued development of advanced rhythms, syncopation, coordination, musicality, and variation of style.</td>
<td>UG</td>
<td>ST</td>
<td>Studio</td>
<td></td>
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<tr>
<td>PLS6881</td>
<td>Diplomacy &amp; Negotiation</td>
<td>PLS</td>
<td>3</td>
<td>Topics include power and leverage, negotiation strategies; mediation and third-party involvement; and ratification and implementation of agreements. Provides an analytical understanding of how negotiation works, and some level of proficiency and comfort in the practice of negotiation.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
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<tr>
<td>CEG5110</td>
<td>Intro Software Testing</td>
<td>CEG</td>
<td>3</td>
<td>This course introduces software testing strategies and established best practices for testing software in a systematic manner. Focus is on planning, writing, and executing a software test plan with documented results.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>PTX4004</td>
<td>Med Chem, Radio &amp; Nuclear Def</td>
<td>PTX</td>
<td>3</td>
<td>Discussion of chemical agents, radiological dispersal devices, and nuclear weapons from a medical and public health perspective, as well as the basics of radiation health physics and nuclear weapon proliferation. The history, physiology, and medical intervention/defense of each category are reviewed.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>EDL8630</td>
<td>Principal Program Exit</td>
<td>EDL</td>
<td>1</td>
<td>Focusing on understanding current building-level leadership concepts, topics, and issues within the context of the school organization.</td>
<td>UG</td>
<td>SE</td>
<td>Seminar</td>
<td></td>
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<tr>
<td>ASL2020</td>
<td>Intermediate ASL II</td>
<td>ASL</td>
<td>4</td>
<td>An expansion of the conversational skills and knowledge of American Sign Language that continues to develop expressive and receptive fluency, knowledge of grammatical features and the Deaf community and its cultural aspects. Outside activity required.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>GEO6000</td>
<td>Climate Meteorology</td>
<td>GEO</td>
<td>3</td>
<td>This is a basic course in meteorology that covers clouds, humidity, precipitation, winds, fronts, forecasting, and climate. The desired outcome is to understand the complex processes that lead to severe weather and climate change.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>PLS6530</td>
<td>Politics of Russia</td>
<td>PLS</td>
<td>3</td>
<td>Examines the political life in Russia and the former Soviet Union, with emphasis on the legacy of communism and the role of economics and politics in the transition to democracy.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>EDL9650</td>
<td>Org Dynamics</td>
<td>EDL</td>
<td>3</td>
<td>Focuses on the individual and the organization. The respective needs and expectations of each are investigated. Emphasis is on interpersonal and organizational communication, group processes, conflict resolution, and collaboration for school improvement.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>URS6240</td>
<td>Pub. Sec. Lab. Relations</td>
<td>URS</td>
<td>3</td>
<td>Examines collective bargaining, the negotiation process, impasse resolution, and contract and grievance administration in local government.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>PSY6720</td>
<td>Select Visual Attn Cap</td>
<td>PSY</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge on selective visual attention.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
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<tr>
<td>CEG5970</td>
<td>Independent Study in CEG</td>
<td>CEG</td>
<td>1</td>
<td>Independent study in computer engineering topics.</td>
<td>GR</td>
<td>UG</td>
<td>Independent Study</td>
<td></td>
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<tr>
<td>STT6620</td>
<td>Theory of Statistics II</td>
<td>STT</td>
<td>4</td>
<td>Point estimation, properties of estimators, sufficiency and completeness, single parameter interval estimation, hypothesis testing, most powerful and UMP tests, likelihood ratio tests, maximum likelihood estimation (MLE) and computational approaches to determine MLE's. The multivariate normal distribution, random vectors and covariance matrices; linear and quadratic forms. The general linear model, Cochran-Fisher theorem. Hypothesis testing and confidence regions for a vector of parameters.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>GEO6440</td>
<td>Adv GIS Applications</td>
<td>GEO</td>
<td>4</td>
<td>Study of advanced geospatial analysis techniques using ArcView and ArcGIS software. GIS analysis and technology used to describe spatial elements of public and private sector development issues and to forecast change.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>SCM4950</td>
<td>Project in SCM</td>
<td>SCM</td>
<td>3</td>
<td>Practical experience in analyzing, designing, implementing, evaluating, and developing supply chain management for businesses and non-profit organizations. Service learning course.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>IHE7310</td>
<td>Adv Ergon</td>
<td>IHE</td>
<td>3</td>
<td>Design of workstations and hand-tools using physiology and biomechanics approach. Ergonomic analysis of assembly, machining and manual material handling operations. Practical solutions and real world case studies to improve productivity and reduce workers compensation costs.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>ATH4420</td>
<td>Archaeology of Conflict</td>
<td>ATH</td>
<td>3</td>
<td>Discussion of large scale forms of conflict of the past 500 years as warfare, structural violence, and state terrorism, as well as archaeological excavations and theories that describe and explain them. Integrated Writing course.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>CRN</td>
<td>Title</td>
<td>Credits</td>
<td>Type</td>
<td>Description</td>
<td>Department</td>
<td>Level</td>
<td>Location</td>
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<tr>
<td>6260</td>
<td>Matrix Computations</td>
<td>3</td>
<td>Lecture</td>
<td>Numerical linear algebra survey using high-level computing tools. Topics include linear equations, matrix factorizations, eigenvalue problems, least squares, applications of singular value decompositions, and iterative methods for large sparse matrices. Emphasizes conditioning of problems and accuracy and stability of algorithms. Department Managed Prerequisite(s): Undergraduate level MTH 2530 Minimum Grade of D and (Undergraduate level CS 1160 Minimum Grade of D or Undergraduate level CEG 2170 Minimum Grade of D)&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>CEG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>ART314</td>
<td>Studies in Baroque Art</td>
<td>3</td>
<td>Lecture</td>
<td>General surveys and intensive studies of the period, major movements, and artists of the time. Integrated Writing course. Department Managed Prerequisite(s): Undergraduate level ART 2110 Minimum Grade of D and Undergraduate level ART 2120 Minimum Grade of D&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>ART</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>TH4580</td>
<td>Singing Mus Theatre VIII</td>
<td>2</td>
<td>Private singing lessons for musical theatre.</td>
<td>TH</td>
<td>LE</td>
<td>Studio</td>
<td></td>
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<tr>
<td>EE3000</td>
<td>Solid State EE Materials</td>
<td>3</td>
<td>Electrical Engineering</td>
<td>Essential physical parameters of solids: elastic and thin-film properties (i.e. MEMS devices); electromechanical, piezoelectric and ferroelectric properties; paramagnetism and ferromagnetism; electron transport properties (metals and semiconductors); electronic bandgap and bandgap engineering; and the essential role of crystallinity in enhancing desired parameters (i.e. dielectric function in ferroelectrics or electron mobility in semiconductors). Department Managed Prerequisite(s): Undergraduate level CEG 2170 Minimum Grade of D&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>EE</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>ED6360</td>
<td>MCE Science: Curr &amp; Mthd</td>
<td>3</td>
<td>Education</td>
<td>Curriculum and materials for teaching middle level science with emphasis on using an integrated constructivist approach to science teaching. Includes development of appropriate objectives, planning, resources and facilities, evaluation, and trends in science education. Department Managed Prerequisite(s): Undergraduate level MAT 2500 Minimum Grade of D&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>ED</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>MBA7500</td>
<td>Leadership and Ethics MBA</td>
<td>3</td>
<td>MBA</td>
<td>To understand and develop leadership skills as well as ethical behavior and the importance of both within an organization. Department Managed Prerequisite(s): Undergraduate level MBA 6010 Minimum Grade of D&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>MBA</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>NUR7803</td>
<td>FNP Practicum</td>
<td>6</td>
<td>Nursing</td>
<td>Intensive clinical focus provides students the opportunity to apply relevant theories, concepts, and research findings to clinical care. Stresses development of clinical competence required in delivering primary health care. Department Managed Prerequisite(s): Undergraduate level NUR 2010 Minimum Grade of D&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>NUR</td>
<td>CL</td>
<td>Clinical</td>
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<tr>
<td>BIO6920</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>Biology</td>
<td>Literature survey, discussion, and oral presentations of selected topics in the biological sciences. Department Managed Prerequisite(s): Undergraduate level BIO 2140 Minimum Grade of D&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>BIO</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>EE7620</td>
<td>Del Est Opt Filt Theory</td>
<td>3</td>
<td>EE Electrical Engineering</td>
<td>Binary detection with single/multiple observations, linear minimum mean-square error filtering; Wiener and Kalman filters, MLE and MAP estimators, histogram, tests of hypotheses, regression analysis, model-free and model-based parameter estimation of random processes. Department Managed Prerequisite(s): Undergraduate level EE 7610 Minimum Grade of D&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>EE</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>SOC3220</td>
<td>Juvenile Delinquency</td>
<td>3</td>
<td>SOC Sociology</td>
<td>Problems of definition and treatment of delinquency. Preparation for further study and work with delinquents. Department Managed Prerequisite(s): Undergraduate level SOC 1000 Minimum Grade of C&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>SOC</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>EDL980</td>
<td>Organizational Behavior</td>
<td>3</td>
<td>EDL Educational Leadership</td>
<td>Analyzing organizations and educational institutions in particular through a social systems orientation. Role theory, leadership theory and styles, ethical behavior, and decision-making theory and practice are addressed from an organizational perspective. Department Managed Prerequisite(s): Undergraduate level EDL 2010 Minimum Grade of C&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>EDL</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>CEG4970</td>
<td>Independent Study</td>
<td>4</td>
<td>CEG Computer Engineering</td>
<td>Independent study in computer engineering topics. Department Managed Prerequisite(s): Undergraduate level CEG 2170 Minimum Grade of D&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>CEG</td>
<td>IS</td>
<td>Independent Study</td>
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<tr>
<td>STT4620</td>
<td>Theory of Statistics II</td>
<td>4</td>
<td>STT Statistics</td>
<td>Point estimation, properties of estimators, sufficiency and completeness, single parameter interval estimation, hypothesis testing, most powerful and UMP tests, likelihood ratio tests; the multivariate normal distribution, random vectors and covariance matrices; linear and quadratic forms. The general linear model and the Cochran-Fisher theorem. Hypothesis testing and confidence regions for a vector of parameters. Department Managed Prerequisite(s): Undergraduate level STT 2620 Minimum Grade of D&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>STT</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>ED7904</td>
<td>Instruct Practices in Math</td>
<td>7</td>
<td>ED Education</td>
<td>Centers on the effective implementation of various mathematical instructional practices, the evidence behind the practices, and their practical application in PK-12 classrooms. Department Managed Prerequisite(s): Undergraduate level EDL 2010 Minimum Grade of C&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>ED</td>
<td>SE</td>
<td>Seminar</td>
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<tr>
<td>ITA1020</td>
<td>Beginning Italian II</td>
<td>3</td>
<td>ITA Italian</td>
<td>Communicative introduction to Italian. Study of the vocabulary and structure of the Italian language; practice in speaking, listening, reading, and writing. Department Managed Prerequisite(s): Undergraduate level ITA 1010 Minimum Grade of C&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>ITA</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>ACC4420</td>
<td>Govt Not Profit Account</td>
<td>3</td>
<td>ACC Accountancy</td>
<td>Application of fund accounting concepts to governmental and not-for-profit entities. Includes accounting procedures and preparation of financial statements. Department Managed Prerequisite(s): Undergraduate level ACC 2010 Minimum Grade of C&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>ACC</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>CEG6322</td>
<td>VLSI Design</td>
<td>3</td>
<td>CEG Computer Engineering</td>
<td>(Also listed as CEG 654.) Introduction to VLSI system design. Topics include CMOS devices and circuit design techniques, basic building blocks for CMOS design, fabrication processing and design rules, chip planning and layout, system timing and power dissipation, simulation for VLSI design, and signal processing with VLSI. Department Managed Prerequisite(s): Undergraduate level CEG 2170 Minimum Grade of D&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>CEG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>MKT4650</td>
<td>Mkt Analytics</td>
<td>3</td>
<td>MKT Marketing</td>
<td>Analysis of online and internal company data, with an emphasis on application and recommendations. Department Managed Prerequisite(s): Undergraduate level MKT 2010 Minimum Grade of C&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>MKT</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>EC6440</td>
<td>Prob in Ec Development</td>
<td>3</td>
<td>EC Economics</td>
<td>This course explores the problems of economic development in the third world and in economies in transition from socialism. Topics include hunger, unemployment, environmental degradation, privatization, gender, and ethnicity. Department Managed Prerequisite(s): Undergraduate level EC 5210 Minimum Grade of C and Undergraduate level EC 5220 Minimum Grade of C&lt;br&gt;&lt;br&gt;&lt;br&gt;</td>
<td>EC</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PHL2050</td>
<td>2050</td>
<td>Philosophy</td>
<td>PHL/SCI</td>
<td>Philosophy</td>
<td>3</td>
<td>Introduction to philosophy through the exploration and critical examination of some of the following perennial, philosophical questions: Does God exist? Are we free? What is happiness? Why be ethical? What is knowledge? What is the meaning of life? Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>IT3450</td>
<td>3450</td>
<td>Altern Media Platforms</td>
<td>IT/SCI</td>
<td>Information Technology</td>
<td>3</td>
<td>In this project-based course, students will use their 3D modeling skills to become creators of interactive media. Students will leverage their own creativity, as the course culminates with building their own personal digital interactive experience.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>EES2600</td>
<td>2600</td>
<td>Environmental Sci &amp; Soc</td>
<td>EES/SCI</td>
<td>Earth &amp; Environmental Sciences</td>
<td>3</td>
<td>Presents environmental problems and the ethical, social, political, and technological bases for their solution, using examples from diverse countries and cultures.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PSY6140</td>
<td>6140</td>
<td>Cond and Learning Cap</td>
<td>PSY/SCI</td>
<td>Psychology</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge within conditioning and learning.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MGT260</td>
<td>7260</td>
<td>Microbiology &amp; Immunology</td>
<td>MI/SCI</td>
<td>Microbiology &amp; Immunology</td>
<td>4</td>
<td>(Also listed as BMS 8020) Fundamentals of immunobiology and basic virology. Emphasis on the regulatory and cellular level of host immune responses against microbial pathogens, as well as mechanisms of immunopathology, and on the characteristics and molecular biology of virus pathogens.</td>
<td>GR</td>
<td>LR</td>
<td>Lecture/Recitation/Combination</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR8800</td>
<td>8860</td>
<td>Data Drvn Bus &amp; Orgs</td>
<td>NUR/NUR</td>
<td>Nursing</td>
<td>3</td>
<td>This course explores the foundations of population health informatics as a basis for assessment, planning, and implementation of evidence-based practices to improve health care systems.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PSY9800</td>
<td>9800</td>
<td>Qualifying Exam Prep</td>
<td>PSY/SCI</td>
<td>Psychology</td>
<td>1</td>
<td>Reading of relevant material for students to prepare to take the qualifying exam for PhD candidacy.</td>
<td>GR</td>
<td>IS</td>
<td>Independent Study</td>
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<tr>
<td>Fall 2022</td>
<td>EDT7510</td>
<td>7510</td>
<td>Educational Technology</td>
<td>EDT/SCI</td>
<td>Educational Technology</td>
<td>3</td>
<td>Use of communication competencies and critical thinking skills, including the ability to access, interpret, evaluate, and communicate information delivered in formats that use images, voice and sound.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>EES3680</td>
<td>3680</td>
<td>Hazardous Waste</td>
<td>EES/SCI</td>
<td>Earth &amp; Environmental Sciences</td>
<td>3</td>
<td>Managing hazardous materials and emergency response in the workplace, at spills, or at hazardous waste sites. Satisfies OSHA training requirement 29 CFR 1910.120.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PSY6630</td>
<td>6630</td>
<td>Human Error Capstone</td>
<td>PSY/SCI</td>
<td>Psychology</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge on human error.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
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<tr>
<td>Fall 2022</td>
<td>BME4350</td>
<td>4350</td>
<td>Comp Neur &amp; Hlth App</td>
<td>BME/ME</td>
<td>Biomedical Engineering</td>
<td>3</td>
<td>Principles and application of computational methods and technologies to neuromechanics and neuroengineering, including applications to healthcare; analysis of applications related to brain-system interface and augmented sensory perception; articulation of various methods of non-invasive neuroscience measurements.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>EE4600L</td>
<td>4600L</td>
<td>UAV Flight Control Lab</td>
<td>EE/SCI</td>
<td>Electrical Engineering</td>
<td>1</td>
<td>Laboratory supporting EE 4600/6600. Students will experience hands-on learning in lab environment. Designing, implementing, and testing autonomous UAV flight control systems.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
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<tr>
<td>Fall 2022</td>
<td>NUR3421C</td>
<td>3421C</td>
<td>Crtcl Rng</td>
<td>NUR/NUR</td>
<td>Nursing</td>
<td>0</td>
<td>Clinical course for NUR 3421</td>
<td>UG</td>
<td>CL</td>
<td>Clinical</td>
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<tr>
<td>Fall 2022</td>
<td>ED4350</td>
<td>4530</td>
<td>AYA ISS Methods</td>
<td>ED/SCI</td>
<td>Education</td>
<td>3</td>
<td>Provides developing professional educators instruction in current trends, issues and methods in adolescence and young adult social studies.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>MUS2510</td>
<td>2510</td>
<td>Music</td>
<td>MUS/NUR</td>
<td>Music</td>
<td>1</td>
<td>Continuation of MUS 1520.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>SW6420</td>
<td>6420</td>
<td>Soc Work</td>
<td>SW/SCI</td>
<td>Social Work</td>
<td>0</td>
<td>Provides knowledge, skills, and values needed for advanced generalist social workers to engage, assess, intervene, and evaluate policy practice with children and families. Includes policies and programs that specifically target positive outcomes for children and families.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>KHH1340B</td>
<td>1340B</td>
<td>Judo</td>
<td>KHH/SCI</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Judo. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4080</td>
<td>4080</td>
<td>Rad Black Thought</td>
<td>PLS/SCI</td>
<td>Political Science</td>
<td>3</td>
<td>Examines radical black thought and philosophy from a Pan-Africanist perspective, focusing primarily on the 20th century. Integrated Writing course.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG6620</td>
<td>6620</td>
<td>Document Design</td>
<td>ENG/SCI</td>
<td>English</td>
<td>3</td>
<td>Instruction and experience in designing effective print and online documents.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PLS6920</td>
<td>6920</td>
<td>Indep Field Research</td>
<td>PLS/SCI</td>
<td>Political Science</td>
<td>1</td>
<td>Supervised individual projects. May include internships or other special projects.</td>
<td>GR</td>
<td>IN</td>
<td>Internship</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME1040</td>
<td>1040</td>
<td>EGR Design &amp; Solid Model</td>
<td>ME/SCI</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>Fundamentals of blue-print reading, technical sketching, mechanical drawing, CAD, modeling and prototyping and computer-assisted analysis. Topics include safety, ethics, product liability, teamwork and personal responsibilities. Prepares students for the CATI Certified Solidworks Associate (CSWA) certification exam. Communication skills and economic considerations are stressed.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Semester</td>
<td>Course Code</td>
<td>Course Title</td>
<td>Type</td>
<td>Credits</td>
<td>Description</td>
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<td>Fall 2022</td>
<td>EDL7680</td>
<td>Teaching Diverse Learners</td>
<td>EDL</td>
<td>3</td>
<td>The purpose of this course is to gain contextual knowledge to teach in contemporary schools. The course emphasizes on psychological, social, and cultural aspects of teaching diverse populations. Diverse learners include, but are not limited to, students with disabilities, economically disadvantaged students, ethnic minorities, gifted, English Language Learners, multilingual speakers, students in workforce, and students with addictions and/or addictive behaviors.</td>
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<tr>
<td>Fall 2022</td>
<td>ISE4910</td>
<td>ISE Design I</td>
<td>ISE</td>
<td>3</td>
<td>Segment one of the ISE senior design sequence. Introduction to patents and engineering ethics included. Practicum results in the definition of the capstone design project to be completed in ISE 4560. Integrated Writing course.</td>
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<tr>
<td>Fall 2022</td>
<td>IHE7990</td>
<td>Independ Stdy in IHE II</td>
<td>IHE</td>
<td>1</td>
<td>Graduate independent studies in advanced industrial and human factors engineering. Topics vary.</td>
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<tr>
<td>Fall 2022</td>
<td>LAT6550</td>
<td>Readings in Roman Poets</td>
<td>LAT</td>
<td>3</td>
<td>Readings include Cicero's political essays and speeches, the letters of Cicero and Pliny, and Augustus' Res Gestae. Titles vary.</td>
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<td>Fall 2022</td>
<td>EES6470</td>
<td>Astronomy K-12 Teachers</td>
<td>EES</td>
<td>2</td>
<td>Introduction to astronomy and the space sciences from the viewpoint of the amateur astronomer. Emphasizes both aesthetic and scientific aspects, and the amateur's enthusiasm for the subject.</td>
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<tr>
<td>Fall 2022</td>
<td>PHL5650</td>
<td>Human Nature</td>
<td>PHL</td>
<td>3</td>
<td>Theories of human nature. Topics vary.</td>
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<tr>
<td>Fall 2022</td>
<td>PSY9035</td>
<td>Math Models of Cognition</td>
<td>PSY</td>
<td>2</td>
<td>1) Math &amp; stats tools for models of cognition: random vars, prob density &amp; dist funct's &amp; cond'l prob.2) Methods for comparing models. This will include BIC, AIC, &amp; chi-square tests.3) Models of response selection inc. Luce choice &amp; Gen'l Context Model and Gen'l Recog. Theory.4) Models of RT: Time series analysis &amp; stochastic processes. Choice + RT models: Linear Ballistic Accumulator &amp; various diffusion models. Systems Factorial Technology for modeling cog with mult sources of info.&lt;b&gt;Department Managed Prerequisite(s): Grad level PSY 7010 Minimum Grade of D and Grad level PSY 7050 Minimum Grade of D&lt;/b&gt;</td>
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<td>Fall 2022</td>
<td>HST7825</td>
<td>Exhibit Design Technology</td>
<td>HST</td>
<td>3</td>
<td>Teaches principles of museum exhibit design using design software and culminating in the development of small-scale exhibit plans. This course is a fee that is non-refundable once the term begins.</td>
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<td>Fall 2022</td>
<td>ART2060</td>
<td>Drawing I</td>
<td>ART</td>
<td>3</td>
<td>Introduction to materials, techniques, and concepts of drawing. This course has a fee that is non-refundable once the term begins.</td>
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<td>Fall 2022</td>
<td>NUR7513</td>
<td>Practicum for ACPNP</td>
<td>NUR</td>
<td>6</td>
<td>Focus is on models of practice in providing health care to infants, children and adolescents within the full scope of advanced practice (wellness, common minor health problems, and high acute and complex chronic illness). Factors influencing role development and delegation/supervision, quality improvements, accreditation standards, professional standards, and prescriptive authority will be addressed.</td>
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<td>Fall 2022</td>
<td>MKT4300</td>
<td>Entrepreneurship Management</td>
<td>MKT</td>
<td>3</td>
<td>How to start a business. Concepts, strategies and tactics of product innovation/development and planning to initiate or purchase a company. Students may develop a written business plan for a new venture.</td>
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<td>Fall 2022</td>
<td>PPH7110</td>
<td>Public Health Research</td>
<td>PPH</td>
<td>3</td>
<td>This class will examine a range of research designs in the context of methods commonly used in public health departments and community based organizations. Students will also learn data analysis skills using SPSS needed to analyze data collected. Students will conduct a research project using a secondary data set.</td>
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<td>Fall 2022</td>
<td>MKT4850</td>
<td>Special Topics in Marketing</td>
<td>MKT</td>
<td>3</td>
<td>Seminar on special topics such as consumerism and social issues, nonprofit organization marketing, advanced retailing management, channels of distribution, pricing, or persuasion. Topics vary. Requires approval of the department chair and the faculty member.</td>
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<td>Fall 2022</td>
<td>MH4340</td>
<td>Biological Safety</td>
<td>M</td>
<td>2</td>
<td>Explore the basic principles and practices of biological safety and biosecurity. Gain an understanding of risk assessment and methods used to prevent laboratory acquired infections. Learn the identification, handling, and containment of potentially hazardous biological materials, including microorganisms, genetically modified organisms, recombinant and non-recombinant nucleic acids, genome editing technologies, and gain-of-function experiments.</td>
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<td>Fall 2022</td>
<td>KNH1100</td>
<td>Bowling</td>
<td>KNH</td>
<td>1</td>
<td>Fundamental skills and knowledge of Bowling. Competency-based approach. Course may accommodate disabled students when appropriate. This course has a fee that is non-refundable once the term begins.</td>
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<td>Fall 2022</td>
<td>EDS4730</td>
<td>IS Student Teaching</td>
<td>EDS</td>
<td>9</td>
<td>Candidates, under the direct supervision of an experienced intervention specialist, are assigned to a school for intensive teaching experience in grades K-12 special education for students with mild/moderate needs.</td>
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<td>Fall 2022</td>
<td>MUS4200</td>
<td>Opera Production and Coaching</td>
<td>MUS</td>
<td>2</td>
<td>For advanced singers in the production of opera; culminates in public performance. Individual coaching for major role assignment. Study and involvement in technical areas of production: set design, building, properties, and costumes. May include participation in Dayton Opera productions.</td>
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<td>Fall 2022</td>
<td>TH3330</td>
<td>Computer Graphics TH I</td>
<td>TH</td>
<td>3</td>
<td>Introduction to computer-aided drafting programs. Basic skills developed through several projects including orthographic projections, designer's elevations, groundplans and light plots.</td>
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<td>Fall 2022</td>
<td>NUR4990</td>
<td>Nur Honors Ind Study</td>
<td>NUR</td>
<td>1</td>
<td>Under the guidance of a faculty member, students implement and complete the honors project proposed in NUR 4980 by taking variable credits of 1-4 semester hours which can be repeated over several semesters. Program requires a minimum total of 2 semester hours but may be extended to a maximum of 4 semester hours.</td>
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<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Department</td>
<td>Prerequisites</td>
<td>Type</td>
<td>Year</td>
<td>Term</td>
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<td>EES3200</td>
<td>3</td>
<td>Water, Energy &amp; Environment</td>
<td>EES</td>
<td>Exploration of the geologic and environmental context of water and energy and the important link between these crucial resources. Emphasis is placed on the increasing global demand for water and energy and how the development and use of energy resources are associated with the allocation, use, and contamination of water. Integrated Writing course. &lt;nbsp&gt;Department Managed Prerequisite(s): Undergraduate level EES 1050 Minimum Grade of D or Undergraduate level EES 2510 Minimum Grade of D or Undergraduate level EES 2550 Minimum Grade of D</td>
<td>Lecture</td>
<td>UG</td>
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<td>EGR4980</td>
<td>4980</td>
<td>Special Topics in EGR</td>
<td>EGR</td>
<td>Special topics in Engineering and Computer Science.</td>
<td>RE</td>
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<td>ANT8520</td>
<td>8520</td>
<td>Biomedical Experiments &amp; Lab Design</td>
<td>ANT</td>
<td>There will be two primary assignments in this course: 1) the experimental design and 2) the oral presentation. As such, the focus of the weekly meetings will be to aid student's understanding of how to develop well written rational, experimental design, predicted results and conclusions, and how to give effective oral presentations. In-class discussions will focus on elements of good experimental design, reinforcement of scientific writing, and elements of effective oral presentations in an effort to establish best practices associated with experimental design and oral presentation. These discussions will be supplemented with peer and instructor feedback on initial drafts. These tools will facilitate students completing their assignments effectively and in a timely manner.</td>
<td>Lecture</td>
<td>GR</td>
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<td>TTW6500</td>
<td>6500</td>
<td>TTW Int: Wrk Stdy</td>
<td>TTW</td>
<td>Students assigned to an experienced Transition to Work Coordinator in the field for observing, discussing, researching, and practicing skills in coordinating direct and related transition services for students with various disabilities.</td>
<td>Internship</td>
<td>GR</td>
<td>IN</td>
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<td>ME4530</td>
<td>4530</td>
<td>Energy Conversion</td>
<td>ME</td>
<td>Fundamentals of energy and energy conversion such as the quantity of energy through the first law of thermodynamics and the quality of energy through the concept of exergy are studied. In addition, our current energy situation, the environment aspects of energy conversion, and the economics of energy conversion are considered. Devices such as electric generators, MHD generators, turbines, thermopiles, combustion chambers based on fossil fuels and biofuels, and nuclear reactors that convert energy from mechanical, thermal, chemical, and nuclear energy to other forms of energy are studied. &lt;nbsp&gt;Department Managed Prerequisite(s): Undergraduate level ME 3310 Minimum Grade of D</td>
<td>Lecture</td>
<td>UG</td>
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<td>AES3310</td>
<td>3310</td>
<td>Leadership Studies Lab Design</td>
<td>AES</td>
<td>Advanced skills and knowledge in management and leadership. Cadets apply leadership and management techniques in a supervised environment.</td>
<td>Lecture</td>
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<tr>
<td>ATH2150</td>
<td>2150</td>
<td>Comp Nonwest Cultures</td>
<td>ATH</td>
<td>Introduction to basic concepts, ideas, issues and debates in cultural anthropology, using examples from Asia, Africa, Latin America, Native North America and the Middle East. Explores diverse ways in which humans relate to one another, and reveals the cultural milieu, political configurations, ways of speaking and environments which people have used to shape their world. Integrated Writing course. Credit will not be given to students who have completed CST 2410, ATH 2500 or ATH 2110.</td>
<td>Lecture</td>
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<td>PN7220</td>
<td>7220</td>
<td>Ion Channels</td>
<td>PN</td>
<td>This course explores the role of ion channels in a variety of cell types with an emphasis on both electrophysiological and biochemical methods for evaluation of channel function.</td>
<td>Lecture</td>
<td>GR</td>
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<td>FR6810</td>
<td>6810</td>
<td>Ind Read for Grad Studen</td>
<td>FR</td>
<td>Independent reading for graduate students. Taught in French &lt;nbsp&gt; Department Managed Prerequisite(s): Graduate level FR 5110 Minimum Grade of D or Graduate level FR 5120 Minimum Grade of D or Graduate level FR 5210 Minimum Grade of D or Graduate level FR 5220 Minimum Grade of D</td>
<td>Lecture</td>
<td>GR</td>
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<td>HST4000</td>
<td>4000</td>
<td>Ancient History</td>
<td>HST</td>
<td>Selected problems in Greek or Roman history to the death of Constantine in A.D. 337. Integrated Writing course.</td>
<td>Lecture</td>
<td>UG</td>
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<td>EES3620</td>
<td>3620</td>
<td>General Environ Health</td>
<td>EES</td>
<td>Relationship of physical/chemical/biotic environments to design and operation of systems and procedures employed to maintain and promote healthful human environments. Emphasizes food sanitation, solid waste, institutional/housing/recreational sanitation, and vector control.</td>
<td>Lecture</td>
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<td>EDL9870</td>
<td>9870</td>
<td>Admin Leadership in Comm.</td>
<td>EDL</td>
<td>Focuses on the development of leadership skills in relationship to individual and organizational communications, group processes, conflict management, decision making, and problem solving. Participants study and practice the principles of change.</td>
<td>Lecture</td>
<td>GR</td>
<td>LE</td>
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<td>BME4950</td>
<td>4950</td>
<td>Undergrad Resrch BME II</td>
<td>BME</td>
<td>Undergraduate research in advanced biomedical engineering. Topics vary.</td>
<td>IS t Study</td>
<td>UG</td>
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<tr>
<td>CIL34810</td>
<td>4810</td>
<td>Independent Study</td>
<td>CLS</td>
<td>Faculty-directed, individualized study on student-selected topics. Limited to majors and advanced students. Permission of department and a minimum 3.0 GPA required.</td>
<td>IS t Study</td>
<td>UG</td>
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<td>CEG7000L</td>
<td>7000L</td>
<td>Advanced Robotics Lab</td>
<td>CEG</td>
<td>Required laboratory for EE 7560.</td>
<td>Lab</td>
<td>GR</td>
<td>LB</td>
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<td>SLI3550</td>
<td>3550</td>
<td>Interpreter Mentoring</td>
<td>SLI</td>
<td>Mentoring and maintaining good relationships with interpreting colleagues. Includes self-assessment techniques, improvement plans, and cognitive and emotional strategies for providing and receiving professional feedback.</td>
<td>Lecture</td>
<td>UG</td>
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<td>ISE4300</td>
<td>4300</td>
<td>Fund of Fact Egr</td>
<td>ISE</td>
<td>Broad overview of the interdisciplinary area of human factors engineering. Students will be exposed to the analysis and design of systems and the tools used by humans in order to improve performance. Topics include task analysis, human perception and performance, interface design, and human-machine interaction.</td>
<td>Lecture</td>
<td>UG</td>
<td>LE</td>
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<td>CNL4630</td>
<td>4630</td>
<td>Mental Hlth &amp; Disability</td>
<td>CNL</td>
<td>Factors influencing behavior of individuals and methods a rehabilitation specialist may use in observing, analyzing, and improving attitudes and behavior.</td>
<td>Lecture</td>
<td>UG</td>
<td>LE</td>
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<td>Fall 2022</td>
<td>MUE6480  6480  Univ Clarinet Choir</td>
<td>MUE  Music Ensembles</td>
<td>1</td>
<td>Performs music of all time periods and styles originally composed for this instrumentation as well as transcriptions of masterworks. GR LL Lecture/Lab Combinations</td>
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<td>Fall 2022</td>
<td>RST2910  2910  Regional Studies MidEast</td>
<td>RST  Regional Leadership</td>
<td>3</td>
<td>Introduction to the history, peoples, cultures, and geography of the Middle East from Mauritania to Pakistan from the seventh century to the present. Integrated Writing course. UG LE Lecture</td>
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<td>Fall 2022</td>
<td>EDL8510  8510  Adv Resrch Design Analysi</td>
<td>EDL  Educational Leadership</td>
<td>3</td>
<td>Individual and group study of ongoing applied educational research. Department Managed Prerequisite(s): Graduate level EDL 8520 Minimum Grade of D</td>
<td>b&gt; GR SE Seminar</td>
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<td>Fall 2022</td>
<td>IT2050  2050  Presentation Skills</td>
<td>IT  Information Technology</td>
<td>3</td>
<td>Professional speaking and electronic presentation skills. UG LE Lecture</td>
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<td>Fall 2022</td>
<td>CEG7590  7590  Medical Image Analysis</td>
<td>CEG  Computer Engineering</td>
<td>3</td>
<td>Topics of 2-D and 3-D image segmentation and registration; 2-D and 3-D feature selection; validation methods; and visualization techniques for volumetric medical images are covered. Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
<td>b&gt; GR LE Lecture</td>
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<td>Fall 2022</td>
<td>BIO6240  6240  Disease Ecology and Evolution</td>
<td>BIO  Biology</td>
<td>3</td>
<td>The class will cover topics such as mathematical theory on host-pathogen interactions; empirical studies of human, wildlife, insect and plant host interactions; emerging infectious diseases; effects on host behavior; host-parasite co-evolution; multi-host and multi-pathogen systems; and anthropogenic effects on disease. The greatest depth of understanding has been achieved at the level of population interactions, specifically interactions between a host and a pathogen. The broader goal of the class is to provide a comprehensive and up-to-date understanding of the causes and consequences of infectious diseases at levels from individual organisms to the globe. GR LE Lecture</td>
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<td>Fall 2022</td>
<td>WGS5800  5800  St in Selected Subjects</td>
<td>WGS  Women, Gender, and Sexuality</td>
<td>3</td>
<td>Issues, approaches, and topics in the field of women's studies. Titles vary. Topics vary. GR LE Lecture</td>
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<td>Fall 2022</td>
<td>CHM2120R  2120R  Organic Chemistry II Recitation</td>
<td>CHM  Chemistry</td>
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<td>Required recitation for CHM 2120. UG RE Recitation</td>
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<td>Fall 2022</td>
<td>KNH7550  7550  Biomechanics</td>
<td>KNH  Kinesiology &amp; Health</td>
<td>3</td>
<td>Biomechanics and functional anatomy of the human body, with application of biophysical principles to normal joint structure and function, pathomechanics, and clinical analysis of posture, gait, and other movements. Includes instruction in measurement methods. GR LE Lecture</td>
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<td>Fall 2022</td>
<td>EES4370  4370  Seismic Processing</td>
<td>EES  Earth &amp; Environmental Sciences</td>
<td>4</td>
<td>Theory and practice of computer processing of seismic reflection data. Deals with seismic data formats, seismic data manipulation, filtering, velocity analysis, stacking and migration, all in both land and marine contexts. Hands-on experience with industry-standard software packages. UG LL Lecture/Lab Combinations</td>
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<td>Fall 2022</td>
<td>MTH4910  4910  HS Math Adv Perspective</td>
<td>MTH  Mathematics</td>
<td>3</td>
<td>Mathematics for high school teachers from an advanced perspective: real and complex numbers, functions, equations, integers and polynomials, number system structures. Integrated Writing course. UG LE Lecture</td>
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<td>Fall 2022</td>
<td>LDR4700  4700  Workshop in Leadership</td>
<td>LDR  Leadership</td>
<td>1</td>
<td>Small group learning for undergraduate students interested in leadership. UG LE Lecture</td>
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<td>Fall 2022</td>
<td>EC4400  4400  Regional and Urban Econs</td>
<td>EC  Economics</td>
<td>3</td>
<td>Regional economic analysis in a policy and planning context. Interdisciplinary approach to analyze the economics of location, inter-regional trade, regional development, urban regions, and growth strategies. UG LE Lecture</td>
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<td>Fall 2022</td>
<td>ANT7310  7310  Human Neurobiol</td>
<td>ANT  Anatomy</td>
<td>4</td>
<td>(Also listed as BMS 903.) Detailed survey of the anatomy and physiology of the major fiber tracts and cell groups of the human central nervous system. GR LL Lecture/Lab Combinations</td>
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<td>Fall 2022</td>
<td>SPM7040  7040  Recreation Management</td>
<td>SPM  Sports Management</td>
<td>1</td>
<td>This course explores directing and managing the program, services, and business operations of recreation and intramural sports programs. Organization principles and current issues are presented. GR SE Seminar</td>
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<td>Fall 2022</td>
<td>CHM2120L  2120L  Organic Chemistry Lab II</td>
<td>CHM  Chemistry</td>
<td>2</td>
<td>Laboratory illustrations of CHM 2120 lecture material and techniques of preparative organic chemistry. UG LB Lab</td>
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<td>Fall 2022</td>
<td>LAT1010  1010  Beginning Latin I</td>
<td>LAT  Latin</td>
<td>3</td>
<td>Introduction to methods and grammatical concepts necessary for further study in Latin. UG LE Lecture</td>
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<td>Fall 2022</td>
<td>MTH2800  2800  Writing Math Proofs</td>
<td>MTH  Mathematics</td>
<td>3</td>
<td>Introduction to logic and techniques used in mathematical proofs. Students gain experience in constructing proofs as they study sets, relations, functions, algebraic structures, and the properties of real numbers. Integrated Writing course. UG LE Lecture</td>
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<td>Fall 2022</td>
<td>SOC6100  6100  Political Anthropology</td>
<td>SOC  Sociology</td>
<td>3</td>
<td>Focuses on the anthropological study of political life cross-culturally. Presents evolutionary and historical approaches to political institutions, and classic anthropological analyses of political institutions. Investigates recent developments in the study of politics as a contemporary problem. GR LE Lecture</td>
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<td>Fall 2022</td>
<td>ED4080  4080  Phonics and Word Study</td>
<td>ED  Education</td>
<td>3</td>
<td>In-depth analysis of how people learn the printed word, and how to assess that knowledge with appropriate phonics and phonics-related assessment and materials. Students will apply knowledge through phonics lesson design, delivery and analysis. UG LE Lecture</td>
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<td>Fall 2022</td>
<td>EE5030L  5030L  Circuit Analysis II Lab</td>
<td>EE  Electrical Engineering</td>
<td>1</td>
<td>Application of AC concepts, computer-aided circuit analysis, two-port networks, and power theory. GR LB Lab</td>
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<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Type</td>
<td>Description</td>
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<td>NUR3440C</td>
<td>Basic Wom&amp;Child Fam Care</td>
<td>3</td>
<td>UG</td>
<td>Required clinical for NUR 3440.</td>
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<td>MLB4810</td>
<td>Basic Immunohematology</td>
<td>2</td>
<td>LE</td>
<td>Theory and application of the use of antigens and antibodies in blood grouping and transfusion medicine.</td>
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<td>PSY2830</td>
<td>Chemical Dependency</td>
<td>3</td>
<td>LE</td>
<td>Use, misuse, and dependency of psychoactive chemicals/drugs. Review of history and theory regarding the study of dependency, particularly as it relates to current practices in treatment, the nature of the addiction process, recovery, and prevention. Screening, diagnosing, assessment, and the referral process.</td>
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<td>COM4820</td>
<td>Senior Honors Project</td>
<td>1</td>
<td>IS</td>
<td>Independent studies course that allows students to pursue research that culminates in a senior honors thesis or project.</td>
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<td>SPN5110</td>
<td>Spanish Conversation I</td>
<td>3</td>
<td>GR</td>
<td>Practice in the oral use of Spanish emphasizing the culture of the Hispanic world.</td>
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<td>CEG4400L</td>
<td>Comp Networks &amp; Security Lab</td>
<td>4</td>
<td>UG</td>
<td>Required laboratory for CEG 4400.</td>
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<td>MUS2020</td>
<td>Theory of Music IV</td>
<td>3</td>
<td>LE</td>
<td>Continuation of MUS 1010 and 1020. Part-writing, analysis, and harmony on a more advanced level.</td>
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<td>KNH1520</td>
<td>SCUBA: Master Diver</td>
<td>2</td>
<td>LB</td>
<td>Advanced skills and knowledge of SCUBA: Master Diver. Competency-based approach. Course may accommodate disabled students when appropriate. This course has a fee that is non-refundable once the term begins.</td>
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<td>MTH4150</td>
<td>Scientific Computation</td>
<td>3</td>
<td>GR</td>
<td>Modern computational techniques for simulating scientific phenomena.</td>
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<tr>
<td>NUR7732</td>
<td>Adv Neonatal Assessment</td>
<td>4</td>
<td>GR</td>
<td>Course allows an immersive experience in the identification of normal and abnormal findings in the neonate. Content includes a comprehensive view of fetal assessment, maternal wellbeing, and family dynamics. Opportunity will be offered to evaluate perinatal histories, perform developmental and physical exams, evaluate diagnostic and laboratory findings, and identify areas for referral. Students will learn to write comprehensive history and physicals using standard nomenclature.</td>
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<td>IHE6300</td>
<td>Fund of HFE</td>
<td>3</td>
<td>GR</td>
<td>Fundamentals of human factors engineering tools and processes as applied to systems development. Emphasis is placed on user-centered design principles. Material is presented through lectures and application-oriented projects.</td>
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<td>PTX8001</td>
<td>Lab Safety</td>
<td>1</td>
<td>GR</td>
<td>In this course we discuss the environmental, health, and safety requirements for laboratory workers. The topics include hazard communication, laboratory-specific hazards, and general laboratory practices. The regulatory agencies and committee that oversee laboratory operations will also be reviewed. This course has been approved for continuing education or contact hours for the Ohio Environmental Protection Agency's Water and Wastewater Operator Certification Program.</td>
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<tr>
<td>FIN7120</td>
<td>Investing in Securities</td>
<td>3</td>
<td>GR</td>
<td>Concepts, theories, and techniques underlying the development of investment policies and strategies.</td>
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<tr>
<td>BIO1150</td>
<td>Organisms and Ecosystems</td>
<td>4</td>
<td>UG</td>
<td>Introduction to basic concepts of biology. Topics include evolution, ecology, and the diversity of life. Department Managed Prerequisite(s): WSU Math Placement Level 25 or Undergraduate level DEV 0280 Minimum Grade of P.</td>
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<tr>
<td>ED6000</td>
<td>Read &amp; Lit II: Int Spec</td>
<td>3</td>
<td>GR</td>
<td>Extends knowledge of literacy instruction and addresses more advanced levels of literacy including content reading and writing for research and extended response.</td>
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<td>CS3180</td>
<td>Comparative Languages</td>
<td>3</td>
<td>UG</td>
<td>Fundamental concepts and paradigms underlying modern programming languages to enable better appreciation, comparison and evaluation of languages. Covers an object-oriented language, a functional language, a logic language, and a multi-paradigm scripting language. Basics of interpreters and compilers are explored through programming assignments.</td>
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<td>FR5610</td>
<td>French Phonetics</td>
<td>3</td>
<td>GR</td>
<td>Pronunciation, diction, rhythm, and intonation. Transcription exercises and oral production. Taught in French.</td>
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<td>SW6160</td>
<td>Grad SW Research I</td>
<td>0</td>
<td>GR</td>
<td>First of three research courses required in MASW program. Basic skills of quantitative and qualitative social research methodology and techniques of gathering, analyzing and interpreting data. Evaluation of research reports for relevance to practice with at-risk populations. Development of initial research or evaluation design for social work practice.</td>
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<td>PLS7010</td>
<td>ICP Statistics</td>
<td>3</td>
<td>LL</td>
<td>Emphasis on quantitative research design, statistical literacy and data analysis in political science. Discusses measurement, probability, and univariate hypothesis testing.</td>
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<td>MUS2420</td>
<td>Comp NW Culture: Music</td>
<td>3</td>
<td>LE</td>
<td>Introduction to the music and cultural diversity and uniqueness of selected areas of the globe. Study of indigenous folk music and instruments of Asia, India, Africa, North America, Central and southeast Europe. Credit will not be given for MUS 2420 Comparative Nonwestern Cultures: Music for students who have already successfully completed CST 2420 Comparative Nonwestern Cultures: Music. Integrated Writing course.</td>
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Fall 2022  ME4580  4580  Fuel Cell Sci and Tech  ME  Mechanical and Materials Engr  3  Fundamentals, technologies, applications of various types of fuel cells, thermodynamics prediction, electrolyte conduction, electrode kinetics. Polymer electrolyte fuel cells, solid oxide fuel cell, fuel cell stack.<b> Department Managed Prerequisite(s): Undergraduate level ME 2700 Minimum Grade of D and (Undergraduate level ME 3310 Minimum Grade of D or Undergraduate level ME 3750 Minimum Grade of D)<b>  UG  LE  Lecture

Fall 2022  EES6120  6120  Earth Materials  EES  Earth & Environmental Sciences  4  This course provides an understanding of the minerals and rocks that make up the solid earth, their significance and uses. Based upon the ‘rock cycle’ the materials studied include the rock-forming minerals as well as their weathered products. The laboratory focuses upon the identification and classification of minerals and rocks in hand specimen.  GR  LL  Lecture/Lab Combinatio

Fall 2022  BIO4480  4480  Advanced Cell Techniques  BIO  Biology  3  Analysis of cellular proteins. Hands-on experience manipulating human cells in culture, extracting cellular proteins, transfecting cells, and performing immunoblotting and immunofluorescence techniques.  UG  LL  Lecture/Lab Combinatio

Fall 2022  SPN3210  3210  SPN Conv and Writing  SPN  Spanish  3  Oral and written composition in Spanish; writing techniques and grammar review. Taught in Spanish. Integrated Writing course.<b> Department Managed Prerequisite(s): Undergraduate level SPN 2020 Minimum Grade of D or Undergraduate level SPN 2120 Minimum Grade of D or AP Spanish Language 4 or AP Spanish Literature 4<b>  UG  LE  Lecture

Fall 2022  SLI3200  3200  Current Topics in Deaf  SLI  Sign Language Interpreting  3  Study of the linguistic, cultural, and societal context of the Deaf community in America. Both historical and contemporary aspects of Deaf identity will be included, with an emphasis on the central role that ASL plays in the lives of Deaf individuals. Integrated Writing course.  UG  LE  Lecture

Fall 2022  URS7030  7030  Organization Theory  URS  Urban Affairs  3  Analysis of the fundamental behavior concepts and processes involved in public sector organizations. Evaluation of approaches to major behavioral issues such as motivation, leadership, and management development.  UG  LE  Lecture

Fall 2022  CNL7800  7800  Sys Tech in Marr & Fam  CNL  Counseling  2  This course focuses on teaching systemic interventions and problem solving in the process of resolving marriage and family related concerns.  GR  LL  Lecture/Lab Combinatio

Fall 2022  ART3180  3180  Art Theory & Criticism  ART  Art  3  Historical surveys and intensive studies of art theory and criticism. Integrated Writing course.<b> Department Managed Prerequisite(s): Undergraduate level ART 2110 Minimum Grade of D and Undergraduate level ART 2120 Minimum Grade of D<b>  UG  LE  Lecture

Fall 2022  ART7900  7900  AT Special Topics  ATR  Athletic Training  1  Variable title/variable credit hour course to allow for special topic exploration that occurs during the MSAT program.  GR  SE  Seminar

Fall 2022  SW6730  6730  Child Welfare I  SW  Social Work  3  Framework for categorizing child welfare problems. Historical and current examination of legislation, policies, programs, and services to address child welfare needs, including the role of the child welfare worker.  GR  LE  Lecture

Fall 2022  REL4930  4930  Seminar in Religion  REL  Religion  3  Intensive study and discussion of a significant topic in religion studies. Students will conduct semester long research projects culminating in a seminar paper. Titles vary. Integrated Writing course.  UG  SE  Seminar

Fall 2022  EDL9130  9130  Adv Tchr Ldr Seminar  EDL  Educational Leadership  3  Advanced studies regarding critical topics and current issues relevant to the development of classroom teachers as school leaders.  GR  SE  Seminar

Fall 2022  HST3900  3900  Global Encounters  HST  History  3  Examination of the social, cultural, economic, religious and/or political interactions between Western Europe and the non-Western world since 1500. Topics vary.  UG  LE  Lecture

Fall 2022  CEG2400  2400  Intro to PC Networking  CEG  Computer Engineering  3  Introduces networking technologies including infrastructure and architectures, standards, protocols and directory services, administration, security and management. Integrated lecture and lab.<b> Department Managed Prerequisite(s): Undergraduate level CS 1150 Minimum Grade of D or Undergraduate level CS 1160 Minimum Grade of D or Undergraduate level CS 1150 Minimum Grade of D or Undergraduate level CS 1160 Minimum Grade of D or Undergraduate level CEG 2170 Minimum Grade of D<b>  UG  LL  Lecture/Lab Combinatio

Fall 2022  PTX7021  7021  Effective Sci Writing-P1  PTX  Pharmacology/Toxicology  3  Students are required to independently write a 10-15 page scientific reviews on a current topic in Pharmacology & Toxicology with input from the adviser.  GR  LE  Lecture

Fall 2022  EDS6670  6670  Collab for Inclusion  EDS  Education - Special Education  3  Co-teaching techniques with an emphasis on differentiation, as well as collaborative consultation and communication strategies to enhance instruction for diverse learners.  GR  LE  Lecture

Fall 2022  ENG4870  4870  Poetry Writing Capstone  ENG  English  3  Students will produce a portfolio integrating knowledge, skills, and principles regarding the writing and revision of original poetry.  UG  SE  Seminar

Fall 2022  EDS6190  6190  Dyslexia Interventions  EDS  Education - Special Education  3  Practices and procedures used in developing curricula for individuals with dyslexia and dyslexia tendencies. Clinical application, classroom accommodation, and development/implementation of the IEP.  GR  LE  Lecture

Fall 2022  BIO4540  4540  Pathophysiology  BIO  Biology  3  Patient care as applied to a wide variety of diseases and associated therapies. The disease process, inflammation and healing, immunity, infection. Discussions of blood, cardiovascular, digestive, urinary, neurologic, endocrine, and musculoskeletal disorders. Case studies accompany each topic area.  UG  LE  Lecture

Fall 2022  PLS4880  4880  Conflict Resolution  PLS  Political Science  3  Survey of literature on causes and resolution of conflict and application of concepts and theories to analysis of a real-world international conflict. Integrated Writing course.  UG  SE  Seminar

Fall 2022  ME7340  7340  Computational Fluid Dyn  ME  Mechanical and Materials Engr  3  Introduction to modern computational fluid dynamic (CFD) methods. Survey of current numerical procedures to solve fluid dynamic problems from incompressible to hypersonic flows. 3 hours lecture, 2 hours lab.<b> Department Managed Prerequisite(s): Graduate level ME 6010 Minimum Grade of C<b>  GR  LL  Lecture/Lab Combinatio

Fall 2022  EDL7730  7730  Curriculum Analysis  EDL  Educational Leadership  3  Improve the school leader’s ability to manage and lead the development and organization of curriculum, course planning, and materials.  GR  LE  Lecture
<p>| Fall 2022 | ED4950  | 4950 | Youth Voices | ED | Education | 3 | Examines the pedagogies that encourage youth in developing the capacity to participate responsibly and effectively in the civic life of their communities. The seminar is centered on a field-based learning experience. Service Learning course. | UG | SE | Seminar |
| Fall 2022 | ABS7900 | 7900 | ABS Graduate Project | ABS | Applied Behavioral Science | 1 | Practical application of knowledge gained through courses applied to a capstone experience. | GR | IS | Independent Study |
| Fall 2022 | HST3300 | 3300 | Survey African History | HST | History | 3 | Survey of a sub-field or a specific topic in African history. Topics vary. | UG | LE | Lecture |
| Fall 2022 | COM1520 | 1520 | Mass Comm | COM | Communication | 3 | Study of mass media functions, industries, and effects to help students become more critical mass media consumers and contributors. | UG | LR | Lecture/Recitation/Combination |
| Fall 2022 | ME7990 | 7990 | Fund of Plasma Sci | ME | Mechanical and Materials Engr | 3 | Properties, characteristics, and use of ionized gases. Fundamentals of gaseous electronics including kinetic theory, excitation, ionization, equilibrium, non-equilibrium, and local thermodynamic equilibrium. Plasma generation, glow discharge, rf-discharges, plasma torches, and free-burning arcs. | GR | LE | Lecture |
| Fall 2022 | MBA5100 | 5100 | Survey of Financial Acct | MBA | MBA | 3 | Provides a basic understanding of financial accounting through examination of the concepts underlyin | GR | LE | Lecture |
| Fall 2022 | CHM5120L | 5120L | Quant Analysis Lab | CHM | Chemistry | 3 | Experimental methods of analysis. Practical applications of the lecture material presented in CHM 5120. | GR | LB | Lab |
| Fall 2022 | EDS6240 | 6240 | Cur meth mat ECIS &amp; PKSN | EDS | Education - Special Education | 3 | Interventions, modifications and adaptations for children in early childhood special education or early intervention to access curriculum. | GR | LE | Lecture |
| Fall 2022 | ART3120 | 3120 | Studies in Medieval Art | ART | Art | 3 | General surveys and intensive studies of the period, major movements, and artists of the time. Integrated Writing course. | GR | LE | Lecture |
| Fall 2022 | PTX7300 | 7300 | Cellular Pharm &amp; Toxicology | PTX | Pharmacology/Toxicology | 3 | Modern toxicology focuses on understanding the mechanism of action of chemicals at the cellular level. This course will explore a spectrum of cellular mechanisms of toxicity providing a broad perspective of the cutting edge of research in toxicology. | GR | LE | Lecture |
| Fall 2022 | REL5630 | 5630 | Women &amp; Religion in Amer | REL | Religion | 3 | Examination of the role women have played in American religious history, with special reference to the diversity of women's religious experiences. | GR | LE | Lecture |
| Fall 2022 | KNH1420B | 1420B | Orienteering/Land Navigation | KNH | Kinesiology &amp; Health | 1 | Fundamental skills and knowledge of Orienteering/Land Navigation. Competency-based approach. Course may accommodate disabled students when appropriate. | UG | LB | Lab |
| Fall 2022 | URS4390 | 4390 | Issues-Nonprofit Admin | URS | Urban Affairs | 3 | Issues and topics related to the administration of nonprofit organizations. | UG | LE | Lecture |
| Fall 2022 | EDT8900 | 8900 | Internship | EDT | Educational Technology | 1 | Students are assigned for a maximum of 100 hours to a library, learning center, computer facility, or video operation to gain practical experience under supervised conditions. | GR | IN | Internship |
| Fall 2022 | PSY4600 | 4600 | Human Factors Cap | PSY | Psychology | 3 | Communication-intensive seminar integrating knowledge on human factors psychology. Topics will vary. Integrated Writing course. | UG | SE | Seminar |
| Fall 2022 | PSI8720 | 8720 | Program Evaluation | PSI | Professional Psychology | 3 | The goal for the course is to make students familiar with basic concepts and practice in program evaluation. The objectives of this course are to teach students about key concepts in program evaluation including program logic models and to provide students with an opportunity to apply their skills by working on a program evaluation. | GR | LE | Lecture |
| Fall 2022 | MIL2020 | 2020 | Found of Tactical Ldrship | MIL | Military Science | 3 | Examines the challenges of leading tactical teams in complex contemporary operating environments. Highlights terrain analysis, patrolling, and operation orders. Cadets develop self-awareness as they assess their own leadership styles and practice communication and team-building skills. Contracted students are required to participate in two-hour lab, physical fitness program and weekend training exercises. | GR | LE | Lecture |
| Fall 2022 | ART4020 | 4020 | Museum/Galle Intern | ART | Art | 1 | Supervised individual projects in museum or gallery setting. | UG | IN | Internship |
| Fall 2022 | PSI9630 | 9630 | Practice Mgmt | PSI | Professional Psychology | 2 | This course will introduce students to business principles as they apply to the practice of clinical psychology. Students will think through various business decisions, such as starting, managing, marketing, and diversifying a psychology practice, and consider the related legal, ethical and financial issues. | GR | SE | Seminar |
| Fall 2022 | BMB3900 | 3900 | Scientific Communication | BMB | Biochem &amp; Molecular Biology | 2 | Reading, comprehending, and generating scientific literature in Biochemistry and Molecular Biology. Integrated Writing course. | UG | LE | Lecture |
| Fall 2022 | CHM7010 | 7010 | Thesis | CHM | Chemistry | 1 | The collection, organization and description of chemical data for the process of writing a thesis. | GR | LE | Lecture |
| Fall 2022 | EDS6281 | 6281 | Prof Seminar: ECIS | EDS | Education - Special Education | 0.5 | Seminar focus will prepare candidates for state licensure requirements. Topics include: planning for instruction and assessment, instruction and engaging learners, assessing learning, and creating a portfolio. | GR | SE | Seminar |
| Fall 2022 | BIO4920 | 4920 | Senior Seminar | BIO | Biology | 1 | Literature survey, discussion, and oral presentations of selected topics in the biological sciences. Minimum GPA of 2.25. | UG | SE | Seminar |
| Fall 2022 | TH2140 | 2140 | Theatre Western Culture | TH | Theatre | 3 | Introduction to the many arts of the theatre including the roles of the actor, playwright, director, designer, critic, and audience. Selected scripts from representative historical periods are examined as an aid in understanding the theatrical event. | UG | LE | Lecture |
| Fall 2022 | BME3530 | 3530 | BME Signals and Systems | BME | Biomedical Engineering | 3 | Analog and digital linear systems concepts applied to biomedical engineering. Topics include signals, functions, and time domain operations; Fourier transform and Laplace transform; steady-state frequency response and analog filter design; discrete signals and discrete Fourier transform; z-transform and frequency response of digital systems; digital FIR and IIR filter design. | UG | LE | Lecture |
| Fall 2022 | ENG7010 | 7010 | Meth &amp; Mat: Literature | ENG | English | 3 | Examination of the aims and approaches of scholarly study of literature and the tools and methods of literary research. Emphasis on the problems of collecting, evaluating, and reporting the findings of scholarly study. | GR | LE | Lecture |
| Fall 2022 | PSY7910 | 7910 | Internship | PSY | Psychology | 1 | Internship in private or governmental organizations under the direction of a faculty advisor. Student must not have defended their Master's thesis prior to enrollment in this course. Does not count for graduate credit toward the M.S. degree in psychology. Graded pass/unsatisfactory. | GR | IN | Internship |
| Fall 2022 | ATH4500 | 4500 | Special Topics Archaeol | ATH | Anthropology | 3 | Intensive study of selected topics in archaeology. | UG | LE | Lecture |
| Fall 2022 | BMB7670 | 7670 | Mol Basis Inherited Dis | BMB | Biochem &amp; Molecular Biology | 3 | An intensive course on human diseases at all levels; replicational, transcriptional, translational, protein expression, protein folding and processing, protein structure and function, cellular metabolic changes, nuclear and cellular phenotypic changes, symptoms, and putative therapies. | GR | SE | Seminar |
| Fall 2022 | EDS4080 | 4080 | Dyslexia&amp;Multi Sensory Instruct | EDS | Education - Special Education | 3 | Provides insight/in-depth knowledge regarding dyslexia: history, theory, brain-based research, methodologies, instructional strategies, effective instruction, assistive technology, structured language and phonics knowledge, research supported instructional procedures and an overall holistic understanding of learners with dyslexia. | UG | LE | Lecture |
| Fall 2022 | ABS7300 | 7300 | Studies in Spec Topics | ABS | Applied Behavioral Science | 3 | Study of specialized topics in the areas of criminal justice or social problems. Topics vary. | GR | LE | Lecture |
| Fall 2022 | CHM1220L | 1220L | General Chemistry Lab II | CHM | Chemistry | 2 | Examination of the principles of General Chemistry II through experimentation. | UG | LB | Lab |
| Fall 2022 | DEV0600 | 0600 | Found for Stat Concepts | DEV | Developmental Education | 2 | Review of basic arithmetic and algebra concepts and skills including numbers and the number line, operations on numbers, sets, equations and inequalities, graphing points and lines in two dimensions, and reading tables and graphs and approximating areas. The context and examples will be from statistics. The content will be delivered to provide &quot;just in time&quot; remediation for STT 1600. | UG | LL | Lecture/Lab Combinatio n |
| Fall 2022 | EDT8240 | 8240 | Digital Teach Lit Review | EDT | Educational Technology | 3 | Students will explore techniques used for constructing a research-based literature review in the field of instructional technology. | GR | LE | Lecture |
| Fall 2022 | BIO6550L | 6550L | Plant Systematics Lab | BIO | Biology | 0 | Required laboratory for BIO 6550. | GR | LB | Lab |
| Fall 2022 | CHM4990 | 4990 | Special Prob Chemistry | CHM | Chemistry | 1 | Examination of specific problems or issues in chemistry. | UG | LE | Lecture |
| Fall 2022 | REL5950 | 5950 | Asian Philosophy | REL | Religion | 3 | Introductory survey of Asian philosophy covering classical East Asian and South Asian concepts of human nature, death, knowledge, ethics, self-cultivation, sociopolitical philosophy, and aesthetics. | GR | LE | Lecture |
| Fall 2022 | ASL3020 | 3020 | Deaf History in America | ASL | American Sign Language | 3 | The multi-faceted history of the American Deaf community, exploring the deaf experience through time. | UG | LE | Lecture |
| Fall 2022 | PSY5910 | 5910 | Behavioral Neurosci I | PSY | Psychology | 3 | Physiological mechanisms of behavior. Basic neuroanatomy and neurophysiology, neuronal development and function, psychopathology, reproduction, learning, sleep, and stress. | GR | LE | Lecture |
| Fall 2022 | ENG3650 | 3650 | Writing Nonfiction | ENG | English | 3 | Advanced strategies for writing nonfiction for non-academic purposes and audiences in various styles, genres, and media. | UG | LE | Lecture |
| Fall 2022 | ENG4735 | 4735 | TESOL Theory and Culture | ENG | English | 3 | Presents a theoretical foundation for the study of second language acquisition, including awareness of first language acquisition. Builds awareness of cultural similarities and differences and addresses the impact of cultural and personal variables on English language learning. Integrated Writing course. This course is designed for students in the combined BA/MA program in TESOL. Does not count for graduate credit toward the M.S. degree in education. Graded pass/unsatisfactory. | UG | LE | Lecture |
| Fall 2022 | EES6480 | 6480 | Plate Tectonics for Edu | EES | Earth &amp; Environmental Sciences | 3 | This course explores the history and development of the theory of plate tectonics with an emphasis upon the particular needs of the educator. A required text provides the topical core, supplemented by abundant web-based resources and information. | GR | LL | Lecture/Lab Combinatio n |</p>
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<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Type</th>
<th>Title</th>
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<tbody>
<tr>
<td>GEO2300</td>
<td>3</td>
<td>Lecture/Lab</td>
<td>Introduction to maps and using maps as means of developing global awareness.</td>
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<tr>
<td>ED6610</td>
<td>2</td>
<td>Education</td>
<td>Educators with prior teaching license(s), under the direct supervision of an experienced classroom teacher, are assigned to a school field experience in grades K-12 and Teaching English as a Second Language (TESOL).</td>
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<tr>
<td>KNH1650A</td>
<td>1560A</td>
<td>Soccer: Indoor</td>
<td>Fundamental skills and knowledge of Soccer: Indoor. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>MUE6500</td>
<td>6500</td>
<td>Symphonic Band</td>
<td>Performs band music of all styles. Open to all students, each semester, with intermediate to advanced experience. Audition required.</td>
</tr>
<tr>
<td>NUR4440C</td>
<td>4440C</td>
<td>Public Health Nursing Clinical</td>
<td>Required clinical for NUR 4440.</td>
</tr>
<tr>
<td>RHB3020</td>
<td>3020</td>
<td>Rehabilitation</td>
<td>Introduction to pharmacological information and the variable effects of medication on a person.</td>
</tr>
<tr>
<td>PSY6920</td>
<td>6920</td>
<td>Psychology</td>
<td>Communication-intensive seminar integrating knowledge on clinical neuroscience.</td>
</tr>
<tr>
<td>TH2190</td>
<td>2190</td>
<td>Stage Lighting</td>
<td>Introduction to the principles, theories and mechanics of theatrical lighting design includes instruments, control, dimming, basic electricity and lighting paperwork.</td>
</tr>
<tr>
<td>PLS7970</td>
<td>7970</td>
<td>Graduate General Examination</td>
<td>Prepares students on the exam track of the ICP MA Program for their comprehensive examination in core, methods and major field. Administration and grading of the exam takes place within this semester course, with a passing grade leading to matriculation and graduation from the program. Questions are selected, and answers graded, by a committee of three appropriate to the core, methods and major field of each student. Course instructor will manage the proctoring of the exam, and timely dissemination of answers and grades between the student and the committee. Department Managed Prerequisite(s): Graduate level PLS 7030 Minimum Grade of C and Graduate level PLS 7200 Minimum Grade of C and Graduate level PLS 7300 Minimum Grade of C.</td>
</tr>
<tr>
<td>ME6020</td>
<td>6020</td>
<td>Data Sci Mech &amp; Mat Engineer</td>
<td>Engineering data science for mechanical and materials system design exploration by using data analytics techniques, statistical modeling, data-driven modeling, and design optimization. Lectures with hands-on exercises in a computer lab. Department Managed Prerequisite(s): Undergraduate level ME 1020 Minimum Grade of C and Undergraduate level ME 2120 Minimum Grade of C and Undergraduate level ME 2700 Minimum Grade of C and Undergraduate level MTH 2310 Minimum Grade of C or equivalent.</td>
</tr>
<tr>
<td>MGT7210</td>
<td>7210</td>
<td>Management</td>
<td>Course provides an understanding of how firms identify, develop and execute different types of international strategies. We have three primary objectives: One, what influences the success and failure of firms in the international context? Two, in the global economy of the 21st century, competition is increasingly shaped by the presence of firms from a variety of national contexts. Three, the nature of competition faced by firms is therefore not only more fierce, but also more culturally diverse.</td>
</tr>
<tr>
<td>ACC4770</td>
<td>4770</td>
<td>Special Topics in ACC</td>
<td>Topics and prerequisites vary.</td>
</tr>
<tr>
<td>PPH7320</td>
<td>7320</td>
<td>Public Health Law</td>
<td>This course provides a general introduction to the field of public health law. The objective of the course is to provide non-lawyers with a general overview of contemporary public health laws, regulations, and court decisions, and the key issues raised thereby with regard to the protection of individual civil and economic liberties. Objectives will be accomplished via lectures, assigned readings, and team-based learning activities. Periodic writing assignments and a final exam are required.</td>
</tr>
<tr>
<td>EC7190</td>
<td>7190</td>
<td>International Economics</td>
<td>This course covers trade theories, commercial policy, and theories of international investment and migration, theories of exchange rate determination and open macroeconomics. Special attention is paid to international economic institutions and current financial crises. Department Managed Prerequisite(s): Graduate level MBA 5200 Minimum Grade of C or (Undergraduate level EC 2040 Minimum Grade of D and Undergraduate level EC 2050 Minimum Grade of D).</td>
</tr>
<tr>
<td>PHIL5000</td>
<td>5030</td>
<td>Modern Philosophy</td>
<td>History of philosophy from Descartes to Kant. Topics vary.</td>
</tr>
<tr>
<td>PTX8002</td>
<td>8002</td>
<td>Principles of Biomed Res</td>
<td>Principles of Biomedical Research is appropriate for students that will be involved in biomedical research. PBR provides a lecture and student interactive series designed to introduce students to the basics of biomedical research.</td>
</tr>
<tr>
<td>LAT5510</td>
<td>5510</td>
<td>Drama in Roman Drama</td>
<td>Drama in Latin by Seneca, Plautus, and/or Terence. Discussion of dramatic techniques, Greek influence, and the role of drama in Roman society. Titles vary.</td>
</tr>
<tr>
<td>PPH7440</td>
<td>7440</td>
<td>Public Health Project Mngmt</td>
<td>This course prepares students to manage small to medium sized health promotion and education projects within a public health organization. The course covers measuring program performance and impact; leading teams; exploring project management tools; fundamentals of human resources; building and maintaining partnerships (collaborations) and coalitions; and identifying and securing funding, and financial management of programs. Department Managed Prerequisite: Graduate level PPH 7420 Minimum Grade of C or permission by instructor.</td>
</tr>
<tr>
<td>Code</td>
<td>Section</td>
<td>Course Title</td>
<td>Department</td>
</tr>
<tr>
<td>----------</td>
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</tr>
<tr>
<td>PLS3410</td>
<td>3410</td>
<td>Fund Crim Investigation</td>
<td>Political Science</td>
</tr>
<tr>
<td>EDT7230</td>
<td>7230</td>
<td>Stu Teach: Int Spec Mild/Mod</td>
<td>Education - Special Education</td>
</tr>
<tr>
<td>SAA7640</td>
<td>7640</td>
<td>Prog Eval/Assmt High Ed</td>
<td>Student Affairs in Higher Ed</td>
</tr>
<tr>
<td>ARA4410</td>
<td>4410</td>
<td>Intro to Arabic Fiction</td>
<td>Arabic</td>
</tr>
<tr>
<td>PSI9971</td>
<td>9971</td>
<td>Practicum I</td>
<td>Professional Psychology</td>
</tr>
<tr>
<td>HST6150</td>
<td>6150</td>
<td>Studies in Modern Europe</td>
<td>History</td>
</tr>
<tr>
<td>PHY6000</td>
<td>6000</td>
<td>Semiconductor Physics</td>
<td>Physics</td>
</tr>
<tr>
<td>COM4110</td>
<td>4110</td>
<td>Perform for the Media</td>
<td>Communication</td>
</tr>
<tr>
<td>CEG4326L</td>
<td>4326L</td>
<td>IC Hardware Sec &amp; Trust Lab</td>
<td>Computer Engineering</td>
</tr>
<tr>
<td>DS6310</td>
<td>6310</td>
<td>Soc &amp; Eth Issues in DS</td>
<td>Data Science</td>
</tr>
<tr>
<td>NUR7099</td>
<td>7099</td>
<td>Thesis/Project</td>
<td>Nursing</td>
</tr>
<tr>
<td>AES4330</td>
<td>4330</td>
<td>Prep for Active Duty II</td>
<td>Aerospace Studies</td>
</tr>
<tr>
<td>MTE6880</td>
<td>6880</td>
<td>Ind Reading Math Stat Ed</td>
<td>Mathematics</td>
</tr>
<tr>
<td>LAT5570</td>
<td>5570</td>
<td>Readings in Roman Satire</td>
<td>Latin</td>
</tr>
<tr>
<td>PLS4610</td>
<td>4610</td>
<td>Comp Social Movements</td>
<td>Political Science</td>
</tr>
<tr>
<td>AFS2000</td>
<td>2000</td>
<td>African Am Experience</td>
<td>Afr /Afr Amer Studies</td>
</tr>
<tr>
<td>BMS9970</td>
<td>9970</td>
<td>Laboratory Rotation II</td>
<td>Biomedical Sciences</td>
</tr>
<tr>
<td>BMB1000</td>
<td>1000</td>
<td>Freshman Seminar in BMB</td>
<td>Biochem &amp; Molecular Biology</td>
</tr>
<tr>
<td>CEG7370</td>
<td>7370</td>
<td>Distributed Computing</td>
<td>Computer Engineering</td>
</tr>
<tr>
<td>STT7440</td>
<td>7440</td>
<td>Multivariate Analysis</td>
<td>Statistics</td>
</tr>
<tr>
<td>PLS6590</td>
<td>6590</td>
<td>Bioethics and Law</td>
<td>Political Science</td>
</tr>
<tr>
<td>Course Code</td>
<td>CRN</td>
<td>Title</td>
<td>Department</td>
</tr>
<tr>
<td>-------------</td>
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</tr>
<tr>
<td>ED4350</td>
<td>4350</td>
<td>Multi-Age Intern Part I</td>
<td>Education</td>
</tr>
<tr>
<td>IDL7230</td>
<td>7230</td>
<td>Understanding Edu Research</td>
<td>IDL</td>
</tr>
<tr>
<td>CEG6420</td>
<td>6420</td>
<td>Host Computer Security</td>
<td>Computer Engineering</td>
</tr>
<tr>
<td>ED6460</td>
<td>6460</td>
<td>AYA Intern Pt I</td>
<td>Education</td>
</tr>
<tr>
<td>ED6840</td>
<td>6840</td>
<td>Meas &amp; Assessment in ED</td>
<td>Education</td>
</tr>
<tr>
<td>GEO3000</td>
<td>3000</td>
<td>Geo-Spatial Mapping</td>
<td>Geography</td>
</tr>
<tr>
<td>PHY7000</td>
<td>7000</td>
<td>Prin. of insti-Phys. Lab</td>
<td>Physics</td>
</tr>
<tr>
<td>FR6110</td>
<td>6110</td>
<td>FR Instr Practicum I</td>
<td>French</td>
</tr>
<tr>
<td>EES2510L</td>
<td>2510L</td>
<td>Earth Systems Lab</td>
<td>EES</td>
</tr>
<tr>
<td>PLS2220</td>
<td>2220</td>
<td>International Politics</td>
<td>Political Science</td>
</tr>
<tr>
<td>MTH710</td>
<td>710</td>
<td>Nmrcal Mth Pnl Dffrnt Eqh</td>
<td>Mathematics</td>
</tr>
<tr>
<td>BMS9910</td>
<td>9910</td>
<td>Special Topics</td>
<td>Biomedical Sciences</td>
</tr>
<tr>
<td>ME6240</td>
<td>6240</td>
<td>Vehicle Engineering</td>
<td>Mechanical and Materials Engr</td>
</tr>
<tr>
<td>PHY2410</td>
<td>2410</td>
<td>General Physics II</td>
<td>Physics</td>
</tr>
<tr>
<td>MTH4070</td>
<td>4070</td>
<td>Optimization Techniques</td>
<td>Mathematics</td>
</tr>
<tr>
<td>BMS7210</td>
<td>7210</td>
<td>Orthopaed &amp; Prosthet Eng</td>
<td>Biomedical Sciences</td>
</tr>
<tr>
<td>HST7230</td>
<td>7230</td>
<td>Sem Modern Eur Hist</td>
<td>History</td>
</tr>
<tr>
<td>PSC7900</td>
<td>7900</td>
<td>Found of Ntwk Sec</td>
<td>Prof Psychology Cyber Security</td>
</tr>
<tr>
<td>FR6520</td>
<td>5220</td>
<td>Adv Writing in French</td>
<td>French</td>
</tr>
<tr>
<td>NUR4460C</td>
<td>4460C</td>
<td>Lsh Mgmt to Prof Nsng Clin</td>
<td>Nursing</td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Description</td>
</tr>
<tr>
<td>-------------</td>
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</tr>
<tr>
<td>NUR7124</td>
<td>3</td>
<td>Adv Hlth Asmr Child/Adp</td>
<td>Application of cognitive processes and psychomotor skills needed for comprehensive health assessment of children and adolescents. Emphasis on health history, physical assessment of children and adolescents. Various instruments will be incorporated to assess growth and development issues.</td>
</tr>
<tr>
<td>EES1070L</td>
<td>0</td>
<td>Sustainable Earth Lab</td>
<td>Required laboratory for EES 1070.</td>
</tr>
<tr>
<td>PSY5040</td>
<td>3</td>
<td>Industrial and Org Psy</td>
<td>Scientific psychological principles, procedures, and methods applied to human behavior in organizations.</td>
</tr>
<tr>
<td>SLI2800</td>
<td>3</td>
<td>Interpreting I</td>
<td>Fundamentals of the ability to interpret between the source and target languages of ASL and spoken English beginning with consecutive interpreting and advancing to simultaneous interpreting. Continued work in Demand Control Schema.</td>
</tr>
<tr>
<td>PSI9080</td>
<td>1</td>
<td>Practice Tutorial</td>
<td>Exposure to a variety of clinical case materials using a vertical team format.</td>
</tr>
<tr>
<td>CHM7620</td>
<td>2</td>
<td>Mass Spectrometry</td>
<td>Current topics in mass spectrometry are discussed with emphasis on theory and state-of-the-art instrumentation and ionization methods.</td>
</tr>
<tr>
<td>PLS4825</td>
<td>3</td>
<td>Washington DC Internship</td>
<td>Internships in Washington, DC for academic credit. Interns are expected to work at least 12-15 hours per week and write an assessment of the experience at the end of the semester.</td>
</tr>
<tr>
<td>ED1040</td>
<td>2</td>
<td>Foundations in Learning</td>
<td>Introduces first semester students to skills needed for successful transition to college, including self-determination and self-advocacy, goal-setting, strategic learning, metacognition, and laws protecting student with disabilities. Use of technology and campus resources to achieve academic success will be explored.</td>
</tr>
<tr>
<td>ENG4470</td>
<td>3</td>
<td>Post-Colonial Lit</td>
<td>Intensive study of post-colonial literature from diverse regions of the global South. Intended to develop critical perspectives on historical periods, genres, language use, thematic concerns, and global trends. Integrated Writing course.</td>
</tr>
<tr>
<td>SCM4600</td>
<td>3</td>
<td>Supply Management</td>
<td>This course covers the nature of sourcing in modern organizations, how sourcing executes business strategy, legal aspects of sourcing including agency role and types of contracts, and negotiation principles. Integrated Writing course.</td>
</tr>
<tr>
<td>DAN3010</td>
<td>3</td>
<td>Ballet III</td>
<td>Vocabulary, techniques, and theory of advanced ballet. Emphasis on body alignment and flexibility.</td>
</tr>
<tr>
<td>EDL9330</td>
<td>3</td>
<td>Instructional Leadership</td>
<td>Discourse analysis and diagnostic language for instruction. Focus on the role of discourse in the development of instructional frameworks, (b) train students to be proficient in using these frameworks to make predictions, and (c) give the students the expertise to think about appropriate statistical techniques for the demands they will face in the future.</td>
</tr>
<tr>
<td>PSY9075</td>
<td>4</td>
<td>Prediction Models</td>
<td>This course is designed to be an intensive investigation into prediction models used in psychology. The main goal of this course is to (a) expose students to path analysis structural equation modeling, multilevel modeling, and statistical learning frameworks, (b) train students to be proficient in using these frameworks to make predictions, and (c) give the students the expertise to think about appropriate statistical techniques for the demands they will face in the future.</td>
</tr>
<tr>
<td>TH4160</td>
<td>3</td>
<td>Singing for Actor VIII</td>
<td>Private singing lessons for acting, theatre studies and dance majors only.</td>
</tr>
<tr>
<td>PHY7040</td>
<td>3</td>
<td>Philosophy of Physics</td>
<td>The various overarching ideas in physics that give unity to the subject. Historical bases of these ideas are included. Topics include but are not limited to the experimental basis of physics, fundamental limits on measuring and of knowing, the physical nature of the cosmos, determinism, relativity, the quantum - continuum transition, the nature of space and time, entropy (H theorem), Bell's theorem, Liouville's theorem.</td>
</tr>
<tr>
<td>SOC4830</td>
<td>3</td>
<td>Sex Drugs &amp; HIV</td>
<td>Examines sexual behavior, substance abuse, stress, stressful life events and stigma associated with HIV/AIDS. Integrated Writing course. Department Managed Prerequisite(s): Undergraduate level SOC 3000 Minimum Grade of D and Undergraduate level SOC 3620 Minimum Grade of D.</td>
</tr>
<tr>
<td>DOS9070</td>
<td>3</td>
<td>Multivariate Statistics</td>
<td>This course will develop most commonly used multivariate statistical techniques. The course includes the purpose, logic, benefits and limitations of applications of a multivariate technique to a data set.</td>
</tr>
<tr>
<td>PPH7980</td>
<td>3</td>
<td>Public Hlth Pract Exp</td>
<td>This applied practice experience is a supervised applied public health learning experience in which students work within a community organization to support public health efforts that are meaningful to the organization.</td>
</tr>
<tr>
<td>EE7170</td>
<td>3</td>
<td>Tgt Tracking Data Assoc</td>
<td>Multitarget tracking and data association. Linear and nonlinear state estimation. Maneuvering targets. Single target and multitarget tracking in clutter. Joint probabilistic data association filter. Multiple hypothesis and distributed multitarget tracking. Track-to-track fusion. Department Managed Prerequisite(s): Undergraduate level EE 7610 Minimum Grade of D.</td>
</tr>
<tr>
<td>ED6575</td>
<td>6</td>
<td>MA Intern Pr II</td>
<td>Candidates, under the direct supervision of an experienced classroom teacher, are assigned to a school for intensive teaching experience in grades K-12: Computer Information Science classroom.</td>
</tr>
<tr>
<td>SW6410</td>
<td>3</td>
<td>Con Foc Area F&amp;C-Pract</td>
<td>Focus area course related to families and children. Provides the knowledge, skills, and values needed for advanced generalist social workers to engage, assess, intervene, and evaluate direct practice with children and families. Includes DSM and other diagnostic tools that apply to children and families. Discussion of clinical interventions with children and families.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>URS6430</td>
<td>Administrative Law</td>
<td>URS</td>
</tr>
<tr>
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</tr>
<tr>
<td>Fall 2022</td>
<td>PSY4920</td>
<td>Clinical Neuro Cap</td>
<td>PSY</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CLS3700</td>
<td>Ancient Pol/Law/War</td>
<td>CLS</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN5320</td>
<td>Survey of Span-Amer Lit</td>
<td>SPN</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ISG7280</td>
<td>Com &amp; Con GIS as St Adv</td>
<td>ISG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>M&amp;I8000</td>
<td>Microbiology Seminar</td>
<td>M&amp;I</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL5600</td>
<td>Topics in Am Religion</td>
<td>REL</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ANT7110</td>
<td>Human Gross Anatomy</td>
<td>ANT</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1770</td>
<td>Water Safety Instruction</td>
<td>KNH</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HST6300</td>
<td>African History</td>
<td>HST</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN2220</td>
<td>Inter Spn II for Medical</td>
<td>SPN</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ISE4410</td>
<td>Tech Based Ventures</td>
<td>ISE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME6610</td>
<td>Clinical Engr Dev World</td>
<td>BME</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHY1120</td>
<td>Principles of Physics II</td>
<td>PHY</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSI8020</td>
<td>Human Development</td>
<td>PSI</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1440B</td>
<td>Phys Ed for Disabled</td>
<td>KNH</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME6340</td>
<td>Simulation of Thermal-Fl</td>
<td>ME</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR3200</td>
<td>Health Wellness Family</td>
<td>NUR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES4540</td>
<td>Subsurface Fluid Flow</td>
<td>EES</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME4185</td>
<td>Design Additive Manufacturing</td>
<td>ME</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MKT4150</td>
<td>Viral Mkt &amp; Social Media</td>
<td>MKT</td>
</tr>
<tr>
<td>Course Code</td>
<td>Credit Hours</td>
<td>Course Title</td>
<td>Institution</td>
</tr>
<tr>
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</tr>
<tr>
<td>IHE7360</td>
<td>3</td>
<td>Cognitive Systems Engr</td>
<td>IHE</td>
</tr>
<tr>
<td>HST7120</td>
<td>3</td>
<td>Seminar in Afr Am History</td>
<td>HST</td>
</tr>
<tr>
<td>SLI4200</td>
<td>3</td>
<td>Educational Interpreting</td>
<td>SLI</td>
</tr>
<tr>
<td>ART2140</td>
<td>3</td>
<td>Themes in Visual Culture</td>
<td>ART</td>
</tr>
<tr>
<td>PPH7990</td>
<td>3</td>
<td>Pub Hlh Integrative Lm Exp I</td>
<td>PPH</td>
</tr>
<tr>
<td>EC2040</td>
<td>3</td>
<td>Principle Microeconomics</td>
<td>EC</td>
</tr>
<tr>
<td>STT4920</td>
<td>3</td>
<td>Undergrad Statistics Sem</td>
<td>STT</td>
</tr>
<tr>
<td>PSY6420</td>
<td>3</td>
<td>Organizational Pay Cap</td>
<td>PSY</td>
</tr>
<tr>
<td>ME4730</td>
<td>3</td>
<td>Engineering Ceramics</td>
<td>ME</td>
</tr>
<tr>
<td>IT4425</td>
<td>4425</td>
<td>Senior Seminar</td>
<td>IT</td>
</tr>
<tr>
<td>CHI3700</td>
<td>3700</td>
<td>Internship in Chinese</td>
<td>CHI</td>
</tr>
<tr>
<td>ED7110</td>
<td>7110</td>
<td>Student Learning &amp; Motivation</td>
<td>ED</td>
</tr>
<tr>
<td>MG7030</td>
<td>7030</td>
<td>Sem Human Resource Mgt</td>
<td>MG0</td>
</tr>
<tr>
<td>CS7730</td>
<td>7730</td>
<td>Fundamentals of Data Science</td>
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<td>Combinatorics and Graphs</td>
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<td>ENG5000</td>
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<td>ENG</td>
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Fall 2022  ENG4760  4760  TESOL Assessment  ENG  English  3  Investigates key concepts and underlying theories in the field of language assessment. Looks at purposes and types of assessment with a focus on the development and use of authentic assessment for English language learners. UG LE Lecture

Fall 2022  LEP0140  0140  Integrated Skills - Level 1  LEP  LEAP  0  Reading, vocabulary, listening, cross-cultural discussions for beginning ESL students. This course has a fee that is non-refundable once the term begins. UG LE Lecture

Fall 2022  GR2010  2010  Intermediate Greek I  GR  Greek  3  Review of essentials and reading for comprehension in selected authors. UG LE Lecture

Fall 2022  MTH3140  3140  Mathematical Software  MTH  Mathematics  3  Solving scientific problems using computational software packages MATLAB and Mathematica, including procedural and functional programming. UG LE Lecture

Fall 2022  ENG3210  3210  British Texts to 1660  ENG  English  3  Representative works of major English writers of the medieval period and the 16th and 17th centuries. UG LE Lecture

Fall 2022  CS5810  5810  Intro to Bioinformatics  CS  Computer Science  3  Tools-oriented approach to bioinformatics emphasizing DNA data structure, string representation in PERL, data searches, pairwise alignments, substitution patterns, protein structure prediction and modeling, proteomics, and use of web-based bioinformatic tools. GR LE Lecture

Fall 2022  ATH3900  3900  Readings in Anthropology  ATH  Anthropology  3  Independent, intensive reading in a specific area of anthropology done under the guidance of a faculty member. Integrated Writing course. UG IS Independent Study

Fall 2022  PSY2001  2001  PSY Elective Topics  PSY  Psychology  1  A variable elective topic in psychology. Topics vary. UG LE Lecture

Fall 2022  URS6320  6320  Managing Volunteer Org  URS  Urban Affairs  3  Prepares students to design, plan and evaluate volunteer programs. Topics address management principles including program design, recruitment, retention, training, and placement and assessment. GR LE Lecture

Fall 2022  EE4480  4480  Remote Sensing Det & Sys  EE  Electrical Engineering  4  Learn to analyze and design electro-optic (EO), infrared (IR), and microwave (radar) detection systems commonly used in remote sensing. Topics include remote sensing applications, electromagnetic wave theory, black body radiation, optics and imaging systems, EO, IR and radar detector design specifications, basic detection and estimation theory, and basic laboratory measurements with EO, IR and radar detectors. UG LL Lecture/Lab Combinatio n

Fall 2022  PSY2002  2002  PSY Elective Topics  PSY  Psychology  1  A variable elective topic in psychology. Topics vary. UG LE Lecture

Fall 2022  MTH2415  2415  Elem Math Concepts Teachers 1  MTH  Mathematics  4  Overview of mathematical topics from a perspective appropriate for early and middle childhood educators. A study of number systems and place value; concepts and algorithms for the four operations; representations for operations on whole numbers, fractions, rational numbers, and decimal numbers. UG LE Lecture

Fall 2022  EES4450  4450  Petroleum Geology  EES  Earth & Environmental Sciences  3  History and legal aspects of the petroleum business including lease acquisition, assignment of working interests, overriding royalties, etc. Petroleum geology, oil and gas exploration techniques, geology of oil producing regions, well drilling, well log interpretation, enhanced oil and gas recovery, CO2 sequestration, production equipment, oil and gas sales and marketing. UG LL Lecture/Lab Combinatio n

Fall 2022  MTH2300  2300  Calculus I  MTH  Mathematics  4  Examines limits, the derivative, differentiation, applications of the derivative, antiderivatives, Riemann sums, the definite integral, and the fundamental theorem of calculus. UG PKG Combinatio n

Fall 2022  MUS3650  3650  Mhrs & Mhrs Music K-6  MUS  Music  3  Materials and methods for teaching general music in grades K-6. Laboratory session required in addition to regular class meeting times to develop skills in sight singing and in the use of traditional classroom instruments. UG LL Lecture/Lab Combinatio n

Fall 2022  IDL7110  7110  Learning in a Digital World  IDL  Instructional Design & Learning  3  Instructor and course designers are introduced to the relationship between learning theory and teaching practices that incorporate digital technologies to enhance students’ learning. This course provides an introduction to the research and science of learning. GR LE Lecture

Fall 2022  MGT7710  7710  Fundamentals of Proj Mgt  MGT  Management  3  An introduction to the management of projects, to include project selection, planning, budgeting, scheduling, execution, and control. Reviews the ‘triple constraint’ of project management: cost, schedule, and technical performance. Covers typical project life cycles, risk management, earned value management, characteristics of successful project managers, and the structure and dynamics of winning project teams. GR LE Lecture

Fall 2022  ART4040  4040  Studies in Art History  ART  Art  3  Problems and approaches to art and art history. Includes cross-period and interdisciplinary studies. UG LE Lecture

Fall 2022  PSI8310  8310  Psychopathology  PSI  Professional Psychology  4  This course discusses the psychological disorders of the DSM-IV TR pertinent to children and adults as well as etiology and diagnostic issues, provides a brief review of evidence-based treatment and research salient to those disorders, and addresses multicultural and ethical considerations. GR LE Lecture

Fall 2022  CHM2450  2450  Concepts Chemistry I  CHM  Chemistry  4  Accelerated treatment of fundamental concepts and applications of chemistry for elementary education majors. Emphasizes concrete observable topics most appropriate for presentation to elementary and middle school students. Demonstrations and activities used extensively. Integrated lecture/lab. UG LL Lecture/Lab Combinatio n

Fall 2022  ED6940  6940  Cont Smt: AYA/LA  ED  Education  3  Seminar accompanying Adolescent and Young Adult Internship focusing on pedagogical content knowledge in Integrated Language Arts, assessment of the National Council of Teachers of English (NCTE) standards and the completion of the professional portfolio. GR SE Seminar

Fall 2022  SLI4570  4570  Medical Interpreting  SLI  Sign Language Interpreting  3  An introductory course for interpreters working in medical settings with Deaf patients. Medical terminology, signed vocabulary, anatomical systems, medications, doctor/hospital specialties, and ethical concerns in this discipline will be covered and medical scenarios interpreted. UG LE Lecture
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<tr>
<th>Course Code</th>
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<th>Type</th>
<th>Description</th>
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<td>PSI9450</td>
<td>Feminist Psychotherapy</td>
<td>9450</td>
<td>PSI Professional Psychology</td>
<td>3</td>
<td>Addresses the theory underlying feminist therapy and focuses on applying that theory to clinical work by utilizing readings, videos, discussion, and role-plays. Students will practice conceptualizing from the feminist perspective.</td>
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<tr>
<td>ED1030</td>
<td>Dev Peer Mente w Distibly</td>
<td>1030</td>
<td>ED Education</td>
<td>2</td>
<td>Assist students with disabilities in becoming a peer mentor for incoming first-year students with disabilities.</td>
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<td>SOC4080</td>
<td>Independent Study</td>
<td>4080</td>
<td>SOC Sociology</td>
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<td>Research project in an area of specialized interest in sociology. Minimum 3.0 grade point average.</td>
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<td>ED7800</td>
<td>Literacy Research Frmwk</td>
<td>7800</td>
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<td>Develop a knowledge and understanding of literacy research and research methods. Written literacy research projects to include: introduction, research purpose and questions, review of literature, and methodology.</td>
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<td>BIO2200</td>
<td>Microbiology-Human Env</td>
<td>2200</td>
<td>BIO Biology</td>
<td>4</td>
<td>Biology of viruses, bacteria, fungi, protozoans, and helminths as related to their natural environments and host-parasite interaction. Introductory course for students in environmental health, nursing, and patient-oriented paramedical health professions. Three hours lecture and two hours lab.</td>
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<tr>
<td>ART3110</td>
<td>Ancient/Classical Art</td>
<td>3110</td>
<td>ART Art</td>
<td>3</td>
<td>General surveys and intensive studies of the period, major movements, and artists of the time. Integrated Writing course. Department Managed Prerequisite(s): Undergraduate level ART 2110 Minimum Grade of D and Undergraduate level ART 2120 Minimum Grade of D.</td>
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<td>EES4560</td>
<td>Groundwater Contam</td>
<td>4560</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>3</td>
<td>Common anthropogenic contaminant distribution in the groundwater as investigated in recent decades. Emphasizes contaminant degradation mechanisms in detail by physical, chemical and microbial processes, which directly affects the mobility and fate of the contaminants in soil and water. Department Managed Prerequisite(s): Undergraduate level EES 2510 Minimum Grade of D.</td>
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<td>BMB4001</td>
<td>Fundamentals of Biochem</td>
<td>4001</td>
<td>BMB Biochem &amp; Molecular Biology</td>
<td>3</td>
<td>The primary focus of this course is the basic principles of biochemistry covered in a one semester format. This course is intended for non-majors and will analyze the structure, metabolism, and function of biological compounds.</td>
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<td>PPH7710</td>
<td>Global Health</td>
<td>7710</td>
<td>PPH Population &amp; Public Health</td>
<td>3</td>
<td>This course offers an introduction to the institutional, economic, epidemiological, ideological, and political forces in the field of global health. Social constructs of health will be reviewed, as well as how environmental factors and political decision making affect global and international health. Students will also explore best practices approaches to health systems both at national and global levels.</td>
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<td>CEG4230</td>
<td>Intro Robotics</td>
<td>4230</td>
<td>CEG Computer Engineering</td>
<td>3</td>
<td>(Also listed as CEG 6560 and ME 6560.) An introduction to the mathematics of robots. Topics covered include coordinate systems and transformations, manipulator kinematics and inverse kinematics, Jacobians, dynamic and trajectory planning.</td>
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<td>ARA3700</td>
<td>Internship in Arabic</td>
<td>3700</td>
<td>ARA Arabic</td>
<td>1</td>
<td>Supervised use of Arabic in workplace settings. Must complete an application available from the Department of Modern Languages. Minimum 45 hours a semester for 1 credit, including at least 40 hours of on-site work. Senior standing and advisor permission required. Department Managed Prerequisite(s): Undergraduate level ARA 3110 Minimum Grade of D and Undergraduate level ARA 3120 Minimum Grade of D and Undergraduate level ARA 3210 Minimum Grade of D and Undergraduate level ARA 3220 Minimum Grade of D.</td>
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<td>EED3300</td>
<td>Intro to Child Dev</td>
<td>3300</td>
<td>EED Elementary Education P-5</td>
<td>3</td>
<td>The physical, cognitive, language, social, and emotional development (typical and atypical) of children prenatal through age eight.</td>
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<tr>
<td>EE6440</td>
<td>Electronic Integr Systems</td>
<td>6440</td>
<td>EE Electrical Engineering</td>
<td>3</td>
<td>Theory and applications of linear integrated circuits. Topics include bipolar and field effect transistor analysis and design, multi-stage and feedback amplifiers, ideal and real operational amplifiers, frequency response and compensation, active filters, comparators, and waveform generators.</td>
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<td>CS7140</td>
<td>Adv Software Engineering</td>
<td>7140</td>
<td>CS Computer Science</td>
<td>3</td>
<td>This course covers advanced topics in software engineering. Aspects of problem specification, design, verification, and evaluation are discussed. We will focus on design methods, including software patterns and software architecture, plus some advanced topics involving formal methods of software specification or evaluation using software metrics. Students will participate in team projects to apply the methods discussed. Department Managed Prerequisite(s): Undergraduate level CEG 4110 Minimum Grade of D and Graduate level CEG 6110 Minimum Grade of D.</td>
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<td>UH4000</td>
<td>Univ Honors Seminar</td>
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<td>Emphasis on broadly interdisciplinary topics or issues. Integrated Writing course.</td>
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<td>BIO4080</td>
<td>Writing in the Bio Sci</td>
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<td>BIO Biology</td>
<td>3</td>
<td>Surveys grammatical and stylistic aspects of scientific writing and teaches students how to organize, write, and submit a manuscript for publication in a biological journal. Grant writing will also be discussed. Integrated Writing course.</td>
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<td>This course guides individual research projects to ensure that the project demonstrates the student's ability to take a problem from inquiry and data gathering, through analysis and solution identification, to formal presentation.</td>
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<td>LDR7600</td>
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<td>This course guides individual research projects to ensure that the project demonstrates the student's ability to take a problem from inquiry and data gathering, through analysis and solution identification, to formal presentation.</td>
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<tr>
<td>CEG6322L</td>
<td>6322L</td>
<td>VLSI Design Lab</td>
<td>CEG Computer Engineering</td>
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<tr>
<td>HLT7001</td>
<td>7001</td>
<td>Intro Bio Stats Ev-Bsd Prac</td>
<td>HLT Health</td>
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<tr>
<td>TH1050</td>
<td>1050</td>
<td>Ballet Mus Theatre II</td>
<td>TH Theatre</td>
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<tr>
<td>FAS3320</td>
<td>3320</td>
<td>Agronomic Industry &amp; Bus</td>
<td>FAS Food and Agricultural Systems</td>
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<tr>
<td>PSY6620</td>
<td>6620</td>
<td>Ergonomics Capstone</td>
<td>PSY Psychology</td>
<td></td>
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<tr>
<td>MIL3022</td>
<td>3022</td>
<td>Applied Team Ldrshp Lab</td>
<td>MIL Military Science</td>
<td></td>
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<tr>
<td>MTH3450</td>
<td>3450</td>
<td>Geometry for Educators</td>
<td>MTH Mathematics</td>
<td></td>
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<tr>
<td>CEG6870</td>
<td>6870</td>
<td>Intro Intell Cont Sys</td>
<td>CEG Computer Engineering</td>
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</tr>
</tbody>
</table>

1. Contemporary legal issues impacting corrections management. Using case law, how the First, Fourth, Fifth, Eighth and Fourteenth Amendments relate to the day-to-day issues of running a prison, jail, and other corrections programs, such as probation and parole. 
2. Faculty-directed, individualized study on student-selected topics. Limited to advanced students. Permission of faculty and a minimum 3.5 GPA required.
3. Completion of 300 hours of field education experience in the community. Provides the opportunity for students to engage in selected and organized activities, with or on behalf of clients, that apply the social work skills, knowledge, and values learned in the classroom.
4. Faculty-directed, individualized study on student-selected topics. Limited to advanced students. Permission of faculty and a minimum 3.5 GPA required.

Department Managed Prerequisite(s): Undergraduate level CEG 4970 Minimum Grade of C

Fall 2022

- Undergraduate level ARA 1020 Minimum Grade of D or Undergraduate level CHI 1020 Minimum Grade of D or Undergraduate level FR 1020 Minimum Grade of D or Undergraduate level GER 1020 Minimum Grade of D or Undergraduate level SPN 1020 Minimum Grade of D.

- Undergraduate level GER 5310 Minimum Grade of D

- An in depth study of major cell signaling pathways as related to human health and disease.

- Coordinates internship experience with in-class coursework to provide advanced practice and supervision in the field of women, gender, and sexuality studies. Site selected with guidance of instructor prior to course registration. Service Learning Intensive.

- State variable representations of continuous and discrete systems. Linear vector spaces and similarity transformations; eigen-analysis, time and transform domain solutions of linear state equations; controllability, observability, and stability of linear systems.

- Work station based experience designing asic devices for evaluation and testing.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Section</th>
<th>Title</th>
<th>Department</th>
<th>Units</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2022</td>
<td>CNL7000</td>
<td>7000 Crsing Thry&amp;Tec Prof Hlth Prof</td>
<td>CNL</td>
<td>3</td>
<td>An overview of the major theoretical approaches to counseling. Key concepts, therapeutic processes, and techniques will be examined along with opportunities for discussion of philosophical and ethical issues in counseling. Examines basic techniques and skills used in counseling diverse populations and settings including the foundational skills of rapport and relationship building, establishing trust, gain consent, active listening, empathy, and the integration of counseling theory into practice.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY2110</td>
<td>2110 Human Sexuality</td>
<td>PSY</td>
<td>3</td>
<td>Survey of the diversity of human sexual behavior including the psychological, physiological, social, and emotional basis of sexual behavior.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ISG7200</td>
<td>7200 Theor Found of Gftd &amp; T</td>
<td>ISG</td>
<td>3</td>
<td>Historical perspective, characteristics and major theories of those with gifted and talented educational needs.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDT8220</td>
<td>8220 3D Concepts &amp; Technology</td>
<td>EDT</td>
<td>3</td>
<td>Students will explore a variety of instructional design concepts and theories, software applications, and how instructional design theory can be applied to practice.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>AES1220</td>
<td>1220 IMT Leadership Lab</td>
<td>AES</td>
<td>0</td>
<td>Air Force Reserve Officer Training Corps training. Application of Air Force tactics, techniques, and procedures in a cadet-lead, cadre-supervised lab. Mandatory Leadership Lab and two weekly physical training sessions.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE4700L</td>
<td>4700L Introduction to MEMS Lab</td>
<td>EE</td>
<td>1</td>
<td>Experimental design, realization and testing of MEMS devices with emphasis on sensing applications. Department Managed Prerequisite(s): Undergraduate level EE 4100 Minimum Grade of D or Undergraduate level PHY 3150 Minimum Grade of D &lt;br&gt;</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH2000</td>
<td>2000 Acting/Tech Practicum</td>
<td>TH</td>
<td>1</td>
<td>Designed to give actors and technician/designers an opportunity to receive academic credit for significant involvement in departmental or approved, supervised professional productions. Project will carry specific requirements and obligations to be agreed upon in writing by faculty supervisors and the student.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MTE6460</td>
<td>6460 Modeling Mid Schi Tchr</td>
<td>MTE</td>
<td>4</td>
<td>Learning to think about the world quantitatively through experiencing solving pure and applied mathematics problems and modeling real world problems individually and in groups. Focuses on working with the steps involved in modeling real-life situations and understanding how modeling and problem solving differ.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FAS2100</td>
<td>2100 Farm Business Management</td>
<td>FAS</td>
<td>3</td>
<td>Fundamentals of farm business management. Principles of management, cost analysis, agricultural enterprise budgets, farm budgets, cash flow analysis, and organizational structure and planning in agricultural operations.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME1020</td>
<td>1020 Engg Prof with Matlab</td>
<td>ME</td>
<td>3</td>
<td>Introduces a broad range of programming concepts using Matlab. Covers concepts such as functions, loops, logic control, graphical user interface generation, computer IO, and communication between disparate languages. Department Managed Prerequisite(s): Undergraduate level EGR 1010 Minimum Grade of D &lt;br&gt;</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED7060</td>
<td>7060 Theory Found in Literacy</td>
<td>ED</td>
<td>3</td>
<td>Development of an understanding regarding the historical, linguistic, sociological and psychological/cognitive theories related to effective literacy instruction and education.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE2010</td>
<td>2010 Analog Circuit Theory</td>
<td>EE</td>
<td>3</td>
<td>Electrical quantities and their relationships. Transform-calculus impedance models of basic circuit elements, Conservation laws leveraging algebraic solutions, Transform-calculus-derived algebraic models of dynamic systems, and mathematical solution techniques. Department Managed Prerequisite(s): Undergraduate level MTH 2300 Minimum Grade of C or Undergraduate level EGR 1010 Minimum Grade of C &lt;br&gt;</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY9045</td>
<td>9045 Bayesian Analyses</td>
<td>PSY</td>
<td>3</td>
<td>This course is an introduction to applying Bayesian data analysis. We will cover the necessary probability theory to understand Bayes’ rule and to derive posterior distributions for simple models. We will discuss MCMC approaches to estimating posteriors including Gibbs sampling and the basics of Hamiltonian MCMC. In the latter half of the course, we will implement and explore a number of variations of generalized linear models, ranging in complexity from t-tests to hierarchical ordinal regression.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSC7950</td>
<td>7950 Sec Sys &amp; App S/W D&amp;D</td>
<td>PSC</td>
<td>3</td>
<td>Introducing software security with software engineering best practices, fundamental tenets of security doctrine, and the incorporation of security throughout the software development lifecycle. Presents guidance for thorough and objective risk analyses and testing.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL9955</td>
<td>9955 Superintenden t Practicum</td>
<td>EDL</td>
<td>3</td>
<td>Provides experience in school leadership and administration at the district level. Candidates perform administrative tasks under the supervision of a licensed school district administrator.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSI8000</td>
<td>8000 Cognitive&amp;Affec tive Base Behr</td>
<td>PSI</td>
<td>3</td>
<td>Introduce the major issues and important concepts in emotion and cognition. Examine how these two domains of human functioning mutually influence each other. Learn how basic, complex, and social emotions may be experienced, interpreted, expressed, or regulated. Explore the relationship between emotional and cognitive processes such as attention, learning, memory, and decision-making. Learn about cultural presentations and differences in cognitive and affective behavior.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PTX7007</td>
<td>7007 Clin Trial Coord Journal Club1</td>
<td>PTX</td>
<td>1</td>
<td>This course was developed to give graduate students the opportunity to learn, read, and interpret clinical research literature and information critically. This course helps students understand some of the main clinical research topics. Topics range from and may include: Clinical Research History, Review Boards, Protocols, and Informed Consent.</td>
</tr>
</tbody>
</table>
| Fall 2022  | ME2120  | 2120 Statics                                                          | ME                  | 3     | Forces, resultants, components, equilibrium of particles, equilibrium of rigid bodies, centroids and centers of gravity, analysis of structures, friction, and moments of inertia. Department Managed Prerequisite(s): Undergraduate level EGR 1010 Minimum Grade of D or Undergraduate level MTH 2300 Minimum Grade of D or Undergraduate level PHY 2400 Minimum Grade of D <br>
<p>| Fall 2022 | BIO4470 | 4470 | Pop and Comm Ecology | BIO | Biology | 3 | Use of deterministic and stochastic models to characterize populations and quantitative methods for analyzing community structure, composition, and dynamics. | UG | LE | Lecture |
| Fall 2022 | NUR8900 | 8900 | DNP Leadership Practicum | NUR | Nursing | 2 | In this course collaboration with faculty and mentors, students design an experience to facilitate application of knowledge gained in prior courses: theories and research related to informatics, population health, health policy, finances and leadership, specific to health systems. Field experiences reinforce classroom learning to the practice environment, namely leadership to support systems level approaches to promote population health. | GR | PR | Practicum |
| Fall 2022 | BME8930 | 8930 | Non-Dissert Resrch in BME | BME | Biomedical Engineering | 1 | Ph.D. Non-Dissertation Research in Biomedical Engineering. | GR | IS | Independent Study |
| Fall 2022 | PTX8130 | 8130 | NanoMedicine | PTX | Pharmacology/T Toxcology | 3 | Nanotechnology is an interdisciplinary field that encompasses aspects of biology, chemistry, and physics. This course will focus on three themes: the development and characterization of NMs, their potential applications in medicine/biomedical applications, and their potential toxicological risks for human health. | GR | LE | Lecture |
| Fall 2022 | MTH3320 | 3320 | Complex Variables | MTH | Mathematics | 3 | Operations with complex numbers, derivatives, holomorphic functions and the Cauchy-Riemann equations. Integrals, Cauchy's Theorem, the Cauchy Integral Formula, and consequences. Definitions and properties of elementary functions. Power series, conformal maps, the calculus of residues. | UG | LE | Lecture |
| Fall 2022 | EDL7410 | 7410 | Instruc Design | EDL | Educational Leadership | 3 | Designing, organizing, managing, and evaluating learning experiences in physical and virtual environments. | GR | LE | Lecture |
| Fall 2022 | MTH2240 | 2240 | Applied Calculus | MTH | Mathematics | 4 | Functions (including exponential and logarithmic functions), limits, derivatives and rates of change, applications of derivatives including graphing and optimization, and indefinite and definite integrals with applications. Credit will not be given for MTH 2240 for students who have already successfully completed MTH 2300. | UG | LE | Lecture |
| Fall 2022 | PTX7110 | 7110 | Journal Club | PTX | Pharmacology/T Toxcology | 1 | WSU faculty driven course. Students are presented with current literature on around a specific topic. The students will give presentations on the material. | GR | SE | Seminar |
| Fall 2022 | HST4850 | 4850 | Approaches to History | HST | History | 3 | Examines approaches to the study of history and historical methodology. Topics vary (e.g. History and Theory). Integrated Writing course. | UG | LE | Lecture |
| Fall 2022 | PSY4000 | 4000 | PSY Capstone Topics | PSY | Psychology | 1 | A selected psychology capstone topic. Topics vary. | UG | LE | Lecture |
| Fall 2022 | MIS4250 | 4250 | IT Infrastructures | MIS | Management Information Systems | 3 | Introduces Information Technology infrastructures including background, types, proper applications, and components of telecommunications, network design, and distributed information systems. Emphasizes telecommunications technology and its impact on information systems and business operations. | UG | LE | Lecture |
| Fall 2022 | BMS7500 | 7500 | Molecular Biochemistry I | BMS | Biomedical Sciences | 3 | Also listed as BMB 7500. Survey course emphasizing experimental and problem-solving approaches to understanding amino acids, protein structure, enzymes, nucleic acid structure and DNA replication. | GR | LE | Lecture |
| Fall 2022 | KNH2600 | 2600 | First Aid and CPR | KNH | Kinesiology &amp; Health | 2 | Standard Red Cross first aid course. Comprehensive study of first aid techniques and procedures in emergency treatment. | UG | LE | Lecture |
| Fall 2022 | CEG3110 | 3110 | Intro Software Testing | CEG | Computer Engineering | 3 | This course introduces software testing strategies and established best practices for testing software in a systematic manner. Focus is on planning, writing, and executing a software test plan along with documented results. Integrated Writing course. | UG | LE | Lecture |
| Fall 2022 | ATH3700 | 3700 | Arch Field Methods | ATH | Anthropology | 3 | A review of the techniques of archaeological survey, the development of fieldwork strategies for the investigation of sites, and techniques of mapping sites and recording archaeological data. | UG | LE | Lecture |
| Fall 2022 | TH1000 | 1000 | Musical Theatre Voice | TH | Theatre | 1 | Weekly musical theatre singing lessons for acting, theatre studies and dance majors only. | UG | ST | Studio |
| Fall 2022 | ANT7010 | 7010 | Selected Topics in ANT | ANT | Anatomy | 1 | A selected area of anatomy is discussed in greater detail than in basic anatomy courses. Some topics may include laboratory. | GR | IS | Independent Study |
| Fall 2022 | BMS8630 | 8630 | Prin Biomedical Research | BMS | Biomedical Sciences | 1 | Principles of Biomedical Research is appropriate for students that will be involved in biomedical research. PBR provides a lecture and student interactive series designed to introduce students to the basics of biomedical research. | GR | LE | Lecture |
| Fall 2022 | PSY9210 | 9210 | Diversity Integration II | PSI | Professional Psychology | 3 | First course in a 2-course sequence that also builds on PSI 9200. Focus is on increasing awareness so that students can have meaningful dialogues about cultural similarities and differences and ground their thinking in post-modern, constructionist theory. Explores the complex integration of multiple identities. | GR | LE | Lecture |
| Fall 2022 | ART3160 | 3160 | Studies 20th Century Art | ART | Art | 3 | General surveys and intensive studies of the period, major movements, and artists of the time. Integrated Writing course. | UG | LE | Lecture |
| Fall 2022 | EDL9140 | 9140 | Adv Coaching Mentoring | EDL | Educational Leadership | 3 | Advanced studies in developing school leaders' essential knowledge, skills, and dispositions for effective coaching and mentoring focused on improving teaching and learning. | GR | LL | Lecture/Lab Combinations |
| Fall 2022 | EE5010 | 5010 | Circuit Analysis I | EE | Electrical Engineering | 3 | The student will have the ability to apply Kirchhoff's laws, an understanding and ability to apply Thévenin and Norton's theorems, analyze and design circuits with operational amplifiers, analyze and design 1st and 2nd order circuits, apply linear differential equation techniques, and have an understanding of sinusoidal steady state analysis. | UG | LE | Lecture |
| Fall 2022 | MLB4610 | 4610 | Serology | MLB | Medical Laboratory Science | 1 | Study of antigens and the stimulation of antibodies in vivo, and the use of these reactions to perform in vitro testing to diagnose and monitor the course of disease. | UG | LE | Lecture |
| Fall 2022 | CS7950 | 7950 | MSCS Thesis Research | CS | Computer Science | 1 | Master's thesis research in computer science | GR | IS | Independent Study |
| Fall 2022 | FR3320 | 3320 | Francophone African Studies | FR | French | 3 | Introduction to the culture and literature from French-speaking Africa. Taught in French. Integrated Writing course. | UG | LE | Lecture |
| Fall 2022 | LDR7250 | 7250 | Drvsty.Edy.Incln&amp;Ctr Ldrshp | LDR | Leadership | 3 | This course focuses on issues related to diversity, equity, inclusion, and culture as they impact both individual and organizational behavior. | GR | LE | Lecture |
| Fall 2022 | ATH2500 | 2500 | Cultural Anti Htlh Care | ATH | Anthropology | 3 | Basic concepts, ideas, issues and debates in cultural anthropology, using examples from Asia, Africa, Latin America, Native North America and the Middle East. Explores diverse ways humans relate to one another and reveals cultural milieus, political configurations, ways of speaking and environments people have used to shape their world. For students who intend to become healthcare professionals. Credit for ATH 2500 will not be given to students who have completed CST 2410. | UG | LE | Lecture |
| Fall 2022 | BMS7461 | 7461 | Rehab Eng Computers I | BMS | Biomedical Sciences | 3 | Introduces adaptive computer access hardware and software solutions for various disability populations in detail. Covers basic principles of programming with application to rehabilitation engineering. Lecture and lab are combined. | GR | LL | Lecture/Lab Combinations |
| Fall 2022 | EC7310 | 7310 | Economics Public Finance | EC | Economics | 3 | Develops a theoretical framework and working knowledge of the economic basis for government activities, government expenditures, programs, and policies, and the financing of government expenditures through taxation. | UG | LE | Lecture |
| Fall 2022 | BME4460 | 4460 | Nanomed Fundamentals | BME | Biomedical Engineering | 3 | Overview of the distinctive features of nanotechnology and their application to biomedical problems. Contrasts macro/micro/nano to bring out the unique properties of nanotechnology in nanomedicine. Cutting-edge nanomedical technologies for sensing and imaging, drug delivery, and therapeutic applications will be addressed. | UG | LE | Lecture |
| Fall 2022 | EC7810 | 7810 | Research in Economics I | EC | Economics | 1 | Titles vary. Intensive reading or research in selected fields of advanced economics. | UG | LE | Lecture |
| Fall 2022 | PSN5430 | 5430 | Spanish Culture | SPN | Spanish | 3 | A comprehensive review of the diverse cultures of Spain. | GR | LE | Lecture |
| Fall 2022 | PSI9050 | 9050 | Statistics &amp; Research Methods II | PSI | Professional Psychology | 3 | Introduction to statistics for psychologists. | GR | LE | Lecture |
| Fall 2022 | EDS4500 | 4500 | Independent Study in IS | EDS | Education - Special Education | 0.5 | Independent study in a selected area of special education. | UG | IS | Independent Study |
| Fall 2022 | EES6540L | 6540L | Subsurface Fluid Flow Lab | EES | Earth &amp; Environmental Sciences | 0 | Required laboratory for EES 6540. | GR | LB | Lab |
| Fall 2022 | ME6120 | 6120 | Finite Element Analysis | ME | Mechanical &amp; Materials Engr | 3 | Fundamentals of finite element analysis as a general numerical method for the solution of boundary value problems in engineering, with an emphasis on structural and solid mechanics. | GR | LE | Lecture |
| Fall 2022 | ECO5580 | 5580 | ECO and Geography | ECO | Center for Economic Educ. | 2 | This course will focus on two specific geographic perspectives: spatial and ecological--to help students understand spatial patterns and processes and the interaction of living and nonliving elements in complex webs of relationships within nature and between nature and society. People look at the world from varying personal perspectives shaped by complex combinations of personal experience, occupational roles, self-interest, and community interest. This course has a fee that is non-refundable once the term begins. | GR | LL | Lecture/Lab Combinations |
| Fall 2022 | BMB8990 | 8990 | Biochemistry Research | BMB | Biochem &amp; Molecular Biology | 0.5 | Original research in a BMB faculty laboratory. Variable credit hours. | GR | IS | Independent Study |
| Fall 2022 | ART4660 | 4660 | Adv Printmg: Relief | ART | Art | 3 | Development of personalized concepts and individual aesthetic expression in printmaking. This course has a fee that is non-refundable once the term begins. | UG | LB | Lab |
| Fall 2022 | BIO4600L | 4600L | Population Genetics Lab | BIO | Biology | 0 | Required laboratory for BIO 4600. | UG | LB | Lab |
| Fall 2022 | PSY6210 | 6210 | Info Processing Cap | PSY | Psychology | 3 | Communication-intensive seminar integrating knowledge on information processing skills such as selective attention, pattern recognition, reading, problem solving, and human performance. | GR | SE | Seminar |
| Fall 2022 | BIO4110 | 4110 | The Aquatic Environment | BIO | Biology | 5 | Detailed coverage of the physical-chemical and biological aspects of inland aquatic ecosystems. Origins and physical and chemical properties of lakes and rivers and the influences of physical-chemical parameters (light, heat, nutrients) on biological processes. Emphasizes the identity and functions of organisms in aquatic ecosystems. Integrated Writing course. | UG | LE | Lecture |
|---|---|---|---|---|---|---|---|---|
| Fall 2022 | TH2020 | 2020 | Sound Design | TH | Theatre | 3 | Introduction to the craft and art of sound design. Emphasis on physics of sound, signal flow, basic equipment usage and maintenance. Includes theory and practices for both reinforced sound and sound sources for the theatre. | UG | LL | Lecture/Lab Combinations |
| Fall 2022 | PSY5000 | 5000 | PSY Core Topics II | PSY | Psychology | 1 | A selected topic in a core area of psychology. The topic and structure of this course will vary according to the discretion of the instructor. | GR | LE | Lecture |
| Fall 2022 | EC6450 | 6450 | Political Econ of Women | EC | Economics | 3 | Provides feminist understanding of women's economic roles and contributions in the context of globalization. Emphasizes the importance of social location - race, gender, class, nationality - in economic processes shaping family life, paid employment, and international market relations. | GR | LE | Lecture |
| Fall 2022 | EDS6300 | 6300 | Workshops in Education | EDS | Education - Special Education | 0.5 | Workshops in selected areas of education taught through the Division of Professional Development (DPD) | GR | LE | Lecture |
| Fall 2022 | TH2570 | 2570 | Singing Mus Theatre II | TH | Theatre | 2 | Private singing lessons for musical theatre. | UG | ST | Studio |
| Fall 2022 | PSY4740 | 4740 | Space and Time Capstone | PSY | Psychology | 3 | Communication-intensive seminar integrating knowledge on space and time. Integrated Writing course. | UG | SE | Seminar |
| Fall 2022 | TH2580 | 2580 | Singing Mus Theatre IV | TH | Theatre | 2 | Private singing lessons for musical theatre. | UG | ST | Studio |
| Fall 2022 | PHY6630 | 6630 | Intro to Solid State Phys | PHY | Physics | 3 | Selected properties of solids and their quantitative explanation in terms of simple physical models. Applications of quantum mechanics to solids. 3 hours lecture. | GR | LE | Lecture |
| Fall 2022 | TH3840 | 3840 | Intro to Dramatic Wrtg | TH | Theatre | 3 | Theory and practice of techniques of dramatic writing emphasizing writing of original plays. | UG | LE | Lecture |
| Fall 2022 | CHM1010L | 1010L | Intro to Chemistry Lab | CHM | Chemistry | 0 | Required laboratory for CHM 1010. | UG | LB | Lab |
| Fall 2022 | CRT1030 | 1030 | Corr Management | CRT | Corrections | 3 | Trends and developments in modern correctional management. | UG | LE | Lecture |
| Fall 2022 | ME5580 | 5580 | Fuel Cell Sci and Tech | ME | Mechanical and Materials Engr | 3 | This course will cover the fundamentals, technologies, and applications of various types of fuel cells. The Fundamentals covered are thermodynamic prediction, electrolyte conduction, and electrode kinetics. The types of fuel cells covered are polymer electrolyte fuel cell, solid oxide fuel cell, and fuel cell stack. | GR | LE | Lecture |
| Fall 2022 | MUA1210 | 1210 | Applied Music | MUA | Music: Applied Music | 2 | Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music. | UG | IS | Independent Study |
| Fall 2022 | FFR6930 | 6930 | Franco-American Films | FR | French | 3 | This course will examine the Americanization of selected French language films as a powerful tool for cross-cultural comparison. Film pairs analyzed will include Breathless and À Bout de souffle, Les Visiteurs and Just Visiting, La Femme infidèle and Unfaithful, etc. Taught in French. | GR | LE | Lecture |
| Fall 2022 | ATR4610 | 4610 | Org &amp; Admin in AT | ATR | Athletic Training | 3 | Knowledge, skills, and dispositions required of the entry-level Certified Athletic Trainer to develop, organize, and manage an athletic training facility. Professional development will also be addressed. | UG | LE | Lecture |
| Fall 2022 | ES7090 | 7090 | Perspectives in Env Sci | ES | Environmental Sciences | 1 | Explores current topics and contemporary research programs and ideas in Environmental Sciences. | GR | SE | Seminar |
| Fall 2022 | NUR8840 | 8840 | HiCare Informatics | NUR | Nursing | 3 | This course examines health care information technologies and their use in health care systems to promote positive population outcomes. | GR | LE | Lecture |
| Fall 2022 | EDS6220 | 6220 | Est part w/fam ECIS/PKSN | EDS | Education - Special Education | 3 | Family partnerships and advocacy in early childhood special education and early intervention. | GR | LE | Lecture |
| Fall 2022 | ACC7460 | 7460 | Fin Statement Analysis | ACC | Accountancy | 3 | Financial Statement presentations are analyzed from an accounting perspective with heavy emphasis on footnote analysis and the impact on the financial statements. | GR | LE | Lecture |
| Fall 2022 | WGS3500 | 3500 | Feminist Activism | WGS | Women, Gender, and Sexuality | 3 | Explores contemporary women’s movements at local and national levels to understand different forms of feminist activism and encourage civic engagement. Service Learning course. | UG | LE | Lecture |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credit Hours</th>
<th>Title</th>
<th>Description</th>
<th>Instructor</th>
<th>Type</th>
<th>Semester</th>
</tr>
</thead>
<tbody>
<tr>
<td>CHI5110</td>
<td>5110</td>
<td>Chinese Conversation</td>
<td>Integrates and balances competency of the four basic language skills: reading, writing, listening, and speaking in Chinese with a focus on conversation.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
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<tr>
<td>CEG4320L</td>
<td>4320L</td>
<td>Dig Integ Ckt Design Lab</td>
<td>Realizations, testing and evaluation of digital integrated circuits with particular emphasis on programmable logic devices.</td>
<td>UG LB Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUA3210</td>
<td>3210</td>
<td>Applied Music</td>
<td>Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music.</td>
<td>UG IS Independent Study</td>
<td></td>
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</tr>
<tr>
<td>IDL3110</td>
<td>3110</td>
<td>Digital Teaching Tools</td>
<td>Educators will learn how to integrate educational technology tools in the classroom to enhance students’ learning.</td>
<td>UG LE Lecture</td>
<td></td>
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</tr>
<tr>
<td>WGS3600</td>
<td>3600</td>
<td>Feminist/Sexuality Theor</td>
<td>Major concepts and themes in feminist, gender, and sexuality theories and applicability of theory to historical and contemporary concerns.</td>
<td>UG LE Lecture</td>
<td></td>
<td></td>
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<tr>
<td>PSI9140</td>
<td>9140</td>
<td>Educational Assessment</td>
<td>Covers the issues and methods surrounding the assessment of various types of academic/learning problems including academic under preparation, impact of psychological impairment, impact of physical impairment, specific learning disabilities, and adult ADHD.</td>
<td>GR LE Lecture</td>
<td></td>
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<tr>
<td>PN6550</td>
<td>6550</td>
<td>Neuron-Glia Biology &amp; Disease</td>
<td>The nervous system is comprised of two primary cell types, neurons and glial cells. The glial cells, which can be divided into several types (e.g. astrocyte, microglia, oligodendrocyte, Schwann cell), support neurons structurally and functionally, and neurons regulate glial cell behavior.</td>
<td>GR LE Lecture</td>
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<tr>
<td>PSI9560</td>
<td>9560</td>
<td>Rehabilitation Psych</td>
<td>Introduction to the field of rehabilitation psychology focusing on current psychological theories and treatment interventions utilized by rehabilitation psychologists and the role of psychological factors in the treatment of function, psychological, and social impacts of disability.</td>
<td>GR LE Lecture</td>
<td></td>
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<tr>
<td>CHM4170</td>
<td>4170</td>
<td>Applied Chemical Spectro</td>
<td>Practical applications of various spectrophotometric techniques (mass spectroscopy, infrared spectroscopy, ultraviolet spectroscopy, and nuclear magnetic resonance) to the study of the structure of organic molecules.</td>
<td>UG LE Lecture</td>
<td></td>
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</tr>
<tr>
<td>STT4860</td>
<td>4860</td>
<td>Ind Read Stat and Prob</td>
<td>Independent study in statistics and probability.</td>
<td>UG IS Independent Study</td>
<td></td>
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</tr>
<tr>
<td>PSY2550</td>
<td>2550</td>
<td>African American Psych</td>
<td>Examines psychological implications of the Black/African American experience.</td>
<td>UG LE Lecture</td>
<td></td>
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</tr>
<tr>
<td>ART3760</td>
<td>3760</td>
<td>Subtractive Proc</td>
<td>Development of personal concepts and aesthetic expression in sculpture, with focus on subtractive processes.</td>
<td>UG ST Studio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KNH1610B</td>
<td>1610B</td>
<td>Strength &amp; Tone</td>
<td>Fundamental skills and knowledge of Strength &amp; Tone. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG LB Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LEP0220</td>
<td>0220</td>
<td>Writing Workshop Level 2</td>
<td>Writing workshop (revision, editing and lab) for low-intermediate/intermediate ESL students. This course has a fee that is non-refundable once the term begins.</td>
<td>UG LL Lecture/Lab Combination</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLS4920</td>
<td>4920</td>
<td>Indep Field Research</td>
<td>Supervised individual projects. May involve intern programs, field research or other specialized projects. Requires 3.0 GPA.</td>
<td>UG IS Independent Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ME3182</td>
<td>3182</td>
<td>Additive Manufacturing Process</td>
<td>Introduce the standard additive manufacturing technologies and applications, the important processing parameters and available materials for each technology.</td>
<td>UG LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PLS3370</td>
<td>3370</td>
<td>The Legislative Process</td>
<td>Policy role, political functions, internal structure, and operation of Congress.</td>
<td>UG LE Lecture</td>
<td></td>
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</tr>
<tr>
<td>EED3650</td>
<td>3650</td>
<td>Phonics &amp; Word Study P-5</td>
<td>An in-depth analysis of how children in P-5 learn phonics and word study, and use this knowledge while reading and writing.</td>
<td>UG LE Lecture</td>
<td></td>
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<tr>
<td>MTH6510</td>
<td>6510</td>
<td>Modern Algebra I</td>
<td>Elementary number theory: divisibility, prime numbers, congruences, quadratic reciprocity, and number-theoretic functions. This provides an introduction to rings, integral domains, and fields.</td>
<td>GR LE Lecture</td>
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<tr>
<td>CHM7440</td>
<td>7440</td>
<td>Struct Concept Org Chem</td>
<td>Study of molecular orbital theory, reactive species, theories of acids and bases, and an introduction to stereochemistry.</td>
<td>GR LE Lecture</td>
<td></td>
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</tr>
<tr>
<td>BMS7030</td>
<td>7030</td>
<td>Research Ethics</td>
<td>(Also listed as BMB 7030.) Research ethics emphasizes the evaluation of hypothetical ethical scenarios in biomedical research. Class discussion is based on integrating ethical policy and practices as they relate to research at Wright State and beyond.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME7950</td>
<td>7950</td>
<td>Thesis</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PPH7420</td>
<td>7420</td>
<td>Health Program Plan &amp; E</td>
<td>PPH</td>
<td>Population &amp; Public Health</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY2710</td>
<td>2710</td>
<td>Psychologisitics</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CRT1010</td>
<td>1010</td>
<td>Intro Community Corr</td>
<td>CRT</td>
<td>Corrections</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NEU1000</td>
<td>1000</td>
<td>Intro to Neuro Research</td>
<td>NEU</td>
<td>Neuroscience</td>
<td>2</td>
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<tr>
<td>Fall 2022</td>
<td>BME1550</td>
<td>1550</td>
<td>Adaptive Computer Tech</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>MGT7000</td>
<td>7000</td>
<td>Intro to Applied Statistics</td>
<td>MGT</td>
<td>Management</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHL5120</td>
<td>5120</td>
<td>History of Ethics</td>
<td>PHL</td>
<td>Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR7735</td>
<td>7735</td>
<td>NNP Practice III</td>
<td>NUR</td>
<td>Nursing</td>
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<tr>
<td>Fall 2022</td>
<td>MUE4440</td>
<td>4440</td>
<td>University Brass Choir</td>
<td>MUE</td>
<td>Music</td>
<td>1</td>
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<tr>
<td>Fall 2022</td>
<td>ME4260</td>
<td>4260</td>
<td>Intro Robotics</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ES7650</td>
<td>7650</td>
<td>Comp Tools/Strategies</td>
<td>ES</td>
<td>Environmental Sciences</td>
<td>4</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>OIS2120</td>
<td>2120</td>
<td>Financial Recordkeeping</td>
<td>OIS</td>
<td>Office Information Systems</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>KHN1340A</td>
<td>1340A</td>
<td>Judo</td>
<td>KHN</td>
<td>Kinesiology &amp; Health</td>
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<td>Fall 2022</td>
<td>MGT7800</td>
<td>7800</td>
<td>Management Internship</td>
<td>MGT</td>
<td>Management</td>
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<td>Fall 2022</td>
<td>CHM7520</td>
<td>7520</td>
<td>Thermodynamics</td>
<td>CHM</td>
<td>Chemistry</td>
<td>2</td>
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<tr>
<td>Fall 2022</td>
<td>CHM3510</td>
<td>3510</td>
<td>Physical Chemistry I</td>
<td>CHM</td>
<td>Chemistry</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG6750</td>
<td>6750</td>
<td>TESOL Grammar</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>IB2010</td>
<td>2010</td>
<td>Intl Business and Trade</td>
<td>IB</td>
<td>International Business</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FR4940</td>
<td>4940</td>
<td>Cuisine et Film</td>
<td>FR</td>
<td>French</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM6880</td>
<td>6880</td>
<td>Thesis Research</td>
<td>CHM</td>
<td>Chemistry</td>
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<tr>
<td>Course Code</td>
<td>Credits</td>
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<td>Description</td>
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<tr>
<td>STT1600</td>
<td>1600</td>
<td>Statistical Concepts</td>
<td>Fundamentals of statistics, including descriptive statistics, probability, confidence intervals, and testing hypotheses, as well as the basics of Chi-square tests, regression and correlation, and analysis of variance. This course includes data analysis activities that use Excel software.</td>
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<tr>
<td>MUS1020</td>
<td>1020</td>
<td>Theory of Music I</td>
<td>Theoretical study of music through written exercises including melody, harmony, rhythm, form and analysis.</td>
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<tr>
<td>SW6890</td>
<td>6890</td>
<td>Selected Topics in SW</td>
<td>Selected topics related to current issues in social work practice; readings, research, and discussion. Topics vary.</td>
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<tr>
<td>CEG4350</td>
<td>4350</td>
<td>OS Internals and Design</td>
<td>Overview of operating systems internals. File-system usage and design, process usage and control, virtual memory, multi user systems, access control. Course projects use C++ language.</td>
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<tr>
<td>IHE7950</td>
<td>7950</td>
<td>Thesis Research in IHE</td>
<td>M.S. Thesis Research in Industrial and Human Factors Engineering</td>
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<tr>
<td>ED2600</td>
<td>2600</td>
<td>Intro to Education</td>
<td>Orientation to the teaching profession and pluralistic American society as well as an awareness of the global community. Integrated Writing course.</td>
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<tr>
<td>LDR7300</td>
<td>7300</td>
<td>Research Methods</td>
<td>This course focuses on the need for learners to understand collecting, analyzing, and interpreting of data related to decision making in the workplace. Research concepts, reasoning, design and basic data analysis skills are introduced.</td>
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<tr>
<td>KNH1620</td>
<td>1620</td>
<td>Stretch &amp; Tone/Pilates</td>
<td>Fundamental skills and knowledge of Stretch &amp; Tone/Pilates. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
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<tr>
<td>MUS6010</td>
<td>6010</td>
<td>Music I</td>
<td>Methods of scholarly investigation in music; history, theory, and education; music bibliography; emphasis on individual projects and reports.</td>
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<tr>
<td>ED6660</td>
<td>6660</td>
<td>Cont Sem: AYA/Science</td>
<td>Seminar accompanying Adolescent and Young Adult Internship focusing on pedagogical content knowledge in Integrated Science, assessment of the National Science Teachers Association (NSTA) standards and the completion of the professional portfolio.</td>
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<tr>
<td>TH3150</td>
<td>3150</td>
<td>Singing for the Actor V</td>
<td>Private singing lessons for acting, theatre studies and dance majors only.</td>
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<tr>
<td>DOS5800</td>
<td>5800</td>
<td>Internship in Org Studies</td>
<td>An immersive learning experience that broadens and deepens the students knowledge, skills, and dispositions at the organizational executive level, while meeting doctoral program outcomes.</td>
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<tr>
<td>WGS7000</td>
<td>7000</td>
<td>Feminist Theory</td>
<td>Analysis of works of influential feminist thinkers from 18th to 21st centuries. Examines major questions, debates, and issues considered by feminist theorists.</td>
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<tr>
<td>ITA1010</td>
<td>1010</td>
<td>Beginning Italian I</td>
<td>Communicative introduction to Italian. Study of the vocabulary and structure of the Italian language; practice in speaking, listening, reading, and writing.</td>
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<tr>
<td>EES6620</td>
<td>6620</td>
<td>Environmental Toxicology</td>
<td>Study of the effects of environmental contaminants on aquatic and terrestrial organisms. Effects on the biochemical and physiological levels are related to impacts on individuals, populations, and ecosystems. Current approaches for assessing environmental toxicity are presented.</td>
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<tr>
<td>BIO4730</td>
<td>4730</td>
<td>Marine Biology</td>
<td>Oceanic ecosystem dynamics and the biological communities associated with different marine habitats. Emphasizes structural and physiological adaptations of organisms to their environment and interactions among different species (competition, predation, and mutualisms). Current threats to marine habitats. Includes a 1 week field trip to the North Carolina coast.</td>
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<tr>
<td>SOC4420</td>
<td>4420</td>
<td>Ethnographic Methods</td>
<td>Explores the meaning, scope and dilemmas of ethnography using both a hands-on ethnographic project and a wide array of readings. Integrated Writing course.</td>
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<tr>
<td>APS4250</td>
<td>4250</td>
<td>Trends Issues in Education</td>
<td>A critical examination of a wide array of current educational issues, problems, and opportunities in education. Emphasis is on the leadership and administrative process utilized in the educational sector.</td>
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<tr>
<td>GEO4860</td>
<td>4860</td>
<td>Foundations of Geography</td>
<td>Theories and methods comprising the field of geography. Development of the profession and paradigms and traditions of geographical study and analysis. Integrated Writing course.</td>
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<tr>
<td>MLB4510</td>
<td>4510</td>
<td>Basic Clinical Chemistry</td>
<td>Theory and application of human biochemistry and principles of chemistry techniques used in the analysis of blood and other body fluids.</td>
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<tr>
<td>MUS1120</td>
<td>1120</td>
<td>Vocal Technique and Diction</td>
<td>Vocal English and Italian diction taught with an emphasis on the IPA phonetic language. Discussion and development of vocal technique, terminology, and anatomy.</td>
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<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Department</td>
<td>Type</td>
<td>Grading</td>
<td>Notes</td>
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<tr>
<td>EE7270</td>
<td>7270</td>
<td>Adaptive Control</td>
<td>EE</td>
<td>Lecture</td>
<td>LE</td>
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<tr>
<td>SAA7540</td>
<td>7540</td>
<td>Resilience Ledship &amp; Work of Work</td>
<td>SAA</td>
<td>Lecture</td>
<td>GR</td>
<td>prerequisites: Grad level EE 7020 Minimum Grade of D or above</td>
</tr>
<tr>
<td>ENG4880</td>
<td>4880</td>
<td>Fiction Writing Capstone</td>
<td>ENG</td>
<td>Lecture</td>
<td>LE</td>
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<tr>
<td>ANT7900</td>
<td>7900</td>
<td>Anatomy Seminar</td>
<td>ANT</td>
<td>Seminar</td>
<td>GR</td>
<td>prerequisites: Anatomy Seminar I and II run concurrent with the DPN</td>
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<tr>
<td>PSY4140</td>
<td>4140</td>
<td>Cond and Learning Cap</td>
<td>PSY</td>
<td>Seminar</td>
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<td>EC7300</td>
<td>7300</td>
<td>Regional &amp; Urban Econ</td>
<td>EC</td>
<td>Seminar</td>
<td>SE</td>
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<td>GER5110</td>
<td>5110</td>
<td>German Conversation I</td>
<td>GER</td>
<td>Lecture</td>
<td>LE</td>
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<tr>
<td>EES3660</td>
<td>3660</td>
<td>Environmnt and Conservation</td>
<td>EES</td>
<td>Internship</td>
<td>IN</td>
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<tr>
<td>PSY6600</td>
<td>6600</td>
<td>Human Factors Cap</td>
<td>PSY</td>
<td>Seminar</td>
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<tr>
<td>ASM7773</td>
<td>7773</td>
<td>Fund Aerospace Med III</td>
<td>ASM</td>
<td>Seminar</td>
<td>GR</td>
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<tr>
<td>HEA8280</td>
<td>8280</td>
<td>Internship in Higher Ed</td>
<td>HEA</td>
<td>Internship</td>
<td>IN</td>
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<tr>
<td>DAN1210</td>
<td>1210</td>
<td>Jazz for MT 1</td>
<td>DAN</td>
<td>Studio</td>
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<tr>
<td>ED4070</td>
<td>4070</td>
<td>Reading and Literacy II</td>
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<td>Lecture</td>
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<tr>
<td>ENG4200</td>
<td>4200</td>
<td>Seminar: Writing Practices</td>
<td>ENG</td>
<td>Seminar</td>
<td>GR</td>
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<td>HST7600</td>
<td>7600</td>
<td>Intro Archives Manuscript</td>
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<td>Lecture</td>
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<td>SPN6000</td>
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<td>Adv Studies: Lang Civil</td>
<td>SPN</td>
<td>Seminar</td>
<td>SE</td>
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<td>CHM4370</td>
<td>4370</td>
<td>Electroanalytic Chem</td>
<td>CHM</td>
<td>Lecture</td>
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<td>EDT7210</td>
<td>7210</td>
<td>Org Data &amp; Collections</td>
<td>EDT</td>
<td>Lecture</td>
<td>LL</td>
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<td>BMS6640</td>
<td>6640</td>
<td>Computational Statistics</td>
<td>BMS</td>
<td>Lecture</td>
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<td>SOC3210</td>
<td>3210</td>
<td>Sociology of Deviance</td>
<td>SOC</td>
<td>Lecture</td>
<td>LE</td>
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<td>EE2011</td>
<td>2011</td>
<td>Analog Circuit Techniques</td>
<td>EE</td>
<td>Lecture</td>
<td>LE</td>
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<td>GEO3100</td>
<td>3100</td>
<td>Economic Geography</td>
<td>GEO</td>
<td>Lecture</td>
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<td>Title</td>
<td>Section</td>
<td>Instructor</td>
<td>Description</td>
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<td>DOS9200</td>
<td>9200</td>
<td>Doc Workshop in Leadshp</td>
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<td>Small group learning for doctoral students designed around a specific topic in organizational studies.</td>
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<tr>
<td>WGS6700</td>
<td>6700</td>
<td>Research Methods</td>
<td>WGS</td>
<td></td>
<td>Examines feminist methodologies and methods of research with emphasis on qualitative inquiry and/or mixed methods.</td>
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<tr>
<td>PHL6020</td>
<td>6020</td>
<td>Continental Phil Seminar</td>
<td>PHL</td>
<td></td>
<td>A focused, in-depth study of a narrow theme or topic in the continental and European philosophical traditions. Topics vary, but will focus on an issue in phenomenology, hermeneutics, critical theory, psychoanalytic theory, or continental social and political philosophy. Reading will focus on a small number of thinkers in the tradition, including philosophers such as Husserl, Heidegger, Merleau-Ponty, Levinas, Adorno, Benjamin, Marcuse, Foucault, Habermas, and Freud.</td>
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</tr>
<tr>
<td>PLS4230</td>
<td>4230</td>
<td>Fin Mgt Pub Orgs</td>
<td>PLS</td>
<td></td>
<td>Local fiscal institutions and analytical tools for designing and evaluating fiscal policies. Reviews financial reporting and accounting, the municipal bond market, pension systems, state and local taxes, user charges, and intergovernmental relations.</td>
<td></td>
</tr>
<tr>
<td>BMS7335</td>
<td>7335</td>
<td>Ergonomic Biodynamics</td>
<td>BMS</td>
<td></td>
<td>Covers quantitative assessment of human motions. Mathematical descriptions include anthropometry, kinetics, and energetics. The methods of kinesiology, biomechanical modeling and electromyography are emphasized.</td>
<td></td>
</tr>
<tr>
<td>STT3860</td>
<td>3860</td>
<td>Ind Read Stat and Prob</td>
<td>STT</td>
<td></td>
<td>Topics vary.</td>
<td></td>
</tr>
<tr>
<td>ATH6410</td>
<td>6410</td>
<td>Historical Archaeology</td>
<td>ATH</td>
<td></td>
<td>Reviews the archaeology of the post-European discovery period in North America. Discussions focus on such topics as the Colonial period, plantation systems and the archaeology of slavery, nineteenth-century sites, industrial sites, and urban sites. May include a small analysis project utilizing excavated materials from Ohio historic sites.</td>
<td></td>
</tr>
<tr>
<td>PSI9180</td>
<td>9180</td>
<td>Integrative Assessment</td>
<td>PSI</td>
<td></td>
<td>Provides a format for integrating various psychological tests into a coherent battery. In addition to addressing the evaluation of various psychological disorders, an approach is provided for constructing batteries for unique populations.</td>
<td></td>
</tr>
<tr>
<td>KNH7800</td>
<td>7800</td>
<td>Research Methods &amp; Prog</td>
<td>KNH</td>
<td></td>
<td>Study of successful program assessment and evaluation processes, related research methods, and grant/project development.</td>
<td></td>
</tr>
<tr>
<td>CNL7240</td>
<td>7240</td>
<td>Career Counseling &amp; Dev</td>
<td>CNL</td>
<td></td>
<td>Presents career development as a series of vocational and other life choices in the process of self-realization, and also considers the effect of rapid social and technological change on this process.</td>
<td></td>
</tr>
<tr>
<td>OL4010</td>
<td>4010</td>
<td>Leading Organizations</td>
<td>OL</td>
<td></td>
<td>Focus on understanding and navigating the structural, philosophical, and human domains of organizations to engage in effective leadership.</td>
<td></td>
</tr>
<tr>
<td>EES7100</td>
<td>7100</td>
<td>Complex in Env. Systems</td>
<td>EES</td>
<td></td>
<td>The interdisciplinary course explores mathematical methods for quantitative analysis and modeling of complex nonlinear environmental systems. The course introduces the concepts and tools for analyzing and modeling; scaling in space and time, feedback, and self-organization in environmental systems including: ecology, hydrology, global climate change, and geodynamical systems.</td>
<td></td>
</tr>
<tr>
<td>ED4360</td>
<td>4360</td>
<td>Science Methods for MCE</td>
<td>ED</td>
<td></td>
<td>Curriculum and materials for teaching middle level science with emphasis on an integrated constructivist approach for middle level science classroom, grades 4-9. Includes development of appropriate objectives, planning, resources and facilities, evaluation, and trends.</td>
<td></td>
</tr>
<tr>
<td>ED5650</td>
<td>5650</td>
<td>AYA Int Pt II; Std T IS</td>
<td>ED</td>
<td></td>
<td>Candidates, under the direct supervision of an experienced classroom teacher, are assigned to a school for intensive teaching experience in grades 7-12 in Integrated Science.</td>
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</tr>
<tr>
<td>ANS5100</td>
<td>5100</td>
<td>Adv Hum Struc &amp; Fun (I)</td>
<td>ANT</td>
<td></td>
<td>Detailed study of the structure and function of the human body. The course begins with anatomical terminology and the characteristics, maintenance and basis of life and moves onto the structure of cells with emphasis on function. Body systems are then covered, which include the integumentary system, skeletal system and articulations, nervous system, special senses and muscular system. Laboratory exercises use human donors.</td>
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<tr>
<td>PHY1060</td>
<td>1060</td>
<td>Astronomy</td>
<td>PHY</td>
<td></td>
<td>Introduction to astronomy emphasizing the solar system and the universe of stars and galaxies. Topics include the earth moon system, other planets and their satellites, space exploration, theories for the origin of the solar system stellar evolution, astrophysics, and cosmology.</td>
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</tr>
<tr>
<td>SOC5110</td>
<td>5110</td>
<td>Sociology of Religion</td>
<td>SOC</td>
<td></td>
<td>Explores the role of religion in society. Religion is viewed not only as a fundamental institution within our social structure, but also as a meaning system (a set of symbols, values, myths, and rituals) and a belonging system (a set of social networks and emotional bonds). Examines the influence that various religions have on society and, in turn, on the effect of social structure and culture on religion. Attention given to American religiosity as well as religion in other cultures.</td>
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<tr>
<td>ENG4910</td>
<td>4910</td>
<td>Directed Reading</td>
<td>ENG</td>
<td></td>
<td>Supervised reading in special areas of American, English, or world literature in translation, and English language and linguistics not available through course structure. Limited to senior English majors with a 3.0 cumulative average.</td>
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<tr>
<td>BIO4720</td>
<td>4720</td>
<td>Ornithology Lab</td>
<td>BIO</td>
<td></td>
<td>Required laboratory for BIO 4720.</td>
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</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Department</td>
<td>Title</td>
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<tr>
<td>FIN6130</td>
<td>6130</td>
<td>Derivatives</td>
<td>FIN Finance</td>
<td></td>
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<tr>
<td>SOC5720</td>
<td>5720</td>
<td>Policing in Society</td>
<td>SOC Sociology</td>
<td></td>
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<tr>
<td>CEG2410</td>
<td>2410</td>
<td>System Administration</td>
<td>CEG Computer Engineering</td>
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<tr>
<td>DS7960</td>
<td>7960</td>
<td>MSDS Capstone Project</td>
<td>DS Data Science</td>
<td></td>
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<tr>
<td>PLS5410</td>
<td>5410</td>
<td>Fund Crime Investigation</td>
<td>PLS Political Science</td>
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<tr>
<td>ENG7990</td>
<td>7990</td>
<td>Fund Crime Investigation</td>
<td>ENG English</td>
<td></td>
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<tr>
<td>EDT8490</td>
<td>8490</td>
<td>Online Crises</td>
<td>EDT Educational Technology</td>
<td></td>
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<tr>
<td>CS1000</td>
<td>1000</td>
<td>Technology and Society</td>
<td>CS Computer Science</td>
<td></td>
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<tr>
<td>SLI3520</td>
<td>3520</td>
<td>Interpreter Ethics</td>
<td>SLI Sign Language Interpreting</td>
<td></td>
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<tr>
<td>MLB4611</td>
<td>4611</td>
<td>Serology Lab</td>
<td>MLB Medical Laboratory Science</td>
<td></td>
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<tr>
<td>MIL2011</td>
<td>2011</td>
<td>Foundation of Ldrshp</td>
<td>MIL Military Science</td>
<td></td>
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<tr>
<td>PSY4110</td>
<td>4110</td>
<td>Positive Psy Cap</td>
<td>PSY Psychology</td>
<td></td>
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<tr>
<td>EDS4650</td>
<td>4650</td>
<td>Transitions Exceptions</td>
<td>EDS Education - Special Education</td>
<td></td>
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<tr>
<td>MTH2280</td>
<td>2280</td>
<td>Business Calculus</td>
<td>MTH Mathematics</td>
<td></td>
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<tr>
<td>HST7320</td>
<td>7320</td>
<td>Seminar African History</td>
<td>HST History</td>
<td></td>
<td></td>
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<tr>
<td>FR6820</td>
<td>6820</td>
<td>Ind Read for Grad Studen</td>
<td>FR French</td>
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<tr>
<td>TH3810</td>
<td>3810</td>
<td>Theatre</td>
<td>TH Theatre</td>
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<tr>
<td>KNH1080A</td>
<td>1080A</td>
<td>Basketball</td>
<td>KNH Kinesiology &amp; Health</td>
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<tr>
<td>PTX9120</td>
<td>9120</td>
<td>Scientific Writing</td>
<td>PTX Pharmacology/Toxicology</td>
<td></td>
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<tr>
<td>PLS6380</td>
<td>6380</td>
<td>Environ Law &amp; Policy</td>
<td>PLS Political Science</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED4990</td>
<td>4990</td>
<td>Afr Am Exper in Ed- Cap</td>
<td>ED Education</td>
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</tbody>
</table>

The course will deal with (a) the structure and operation of derivative markets (options, forward contracts, futures, swaps and other derivatives), (b) the valuation of derivatives, (c) hedging using derivatives, and (d) applications of derivatives in the areas of risk management, portfolio insurance, and financial engineering.

In DS 7960 students will apply the concepts from their formal graduate coursework to current, practical problems relevant to the field. Unlike a Master's thesis, the capstone project does not necessarily require an original, unique contribution to the state of the art. However, the project should require demonstration of graduate level mastery over a substantial body of concepts in the field. Projects may include (but are not limited to) implementation and/or robust testing of software or hardware artifacts relevant to the field, replication of previous research results or conduct of novel research, collection, curation and analysis of real-world or simulation data of value to the research community, or authoring a comprehensive review of the state of the art in a specific research area.

At least one third of the course will be focused on ethical situations that arise in a sign language interpreter's work. Ethical dilemmas will be debated, while the course will deal with (a) the structure and operation of derivative markets (options, forward contracts, futures, swaps and other derivatives), (b) the valuation of derivatives, (c) hedging using derivatives, and (d) applications of derivatives in the areas of risk management, portfolio insurance, and financial engineering.

To be arranged with the Department of Chemistry. Students will be allowed a maximum of three hours thesis credit toward the degree.

Examines the theory and practices of using educational technologies to ensure online courses include ample interaction. Class will include the knowledge and skills necessary to utilize some of these educational technologies.

Examines and evaluates the consequences of technology on individuals, organizations and society to recognize its benefits, potential, and limitations. Explores current social, ethical, legal and philosophical topics to understand how the Digital Revolution impacts society. Integrated Writing course.

Focus on ethical situations that arise in a sign language interpreter's work. Ethical dilemmas will be debated, while exploring the R&D Code of Professional Conduct and other ethical standards. Personal decision making process will be considered.

Antigens and the stimulation of antibodies in vivo, and the use of these reactions to perform in vitro testing to diagnose and monitor the course of disease. This course has a fee that is non-refundable once the term begins.

Appraisal of Army tactics, techniques and procedures in cadet-led, cadre-supervised lab. Mandatory participation in weekly two-hour leadership lab, three physical fitness classes and weekend training exercises for all contracted cadets.

Communication-intensive seminar integrating knowledge within Positive Psychology. Integrated Writing course.

Role of intervention specialists in shaping transition for students with exceptionalities. Focus on high school/college transition with consideration of transitions at earlier levels.

Functions, rates of change, limits, derivatives of algebraic functions, applications including maxima and minima, exponential and logarithmic functions, and indefinite and definite integrals with applications. Credit will not be given for MTH 2280 for students who have already successfully completed MTH 2300.

Examines particular periods, regions, or countries in African history. Topics vary.

Independent reading for graduate students. Taught in French. Department Managed Prerequisite(s): Graduate level FR 5110 Minimum Grade of D or Graduate level FR 5120 Minimum Grade of D or Graduate level FR 5210 Minimum Grade of D or Graduate level FR 5220 Minimum Grade of D<br>

To be arranged with the Department of Chemistry. Students will be allowed a maximum of three hours thesis credit toward the degree.

Independent reading for graduate students. Taught in French. Department Managed Prerequisite(s): Graduate level FR 5110 Minimum Grade of D or Graduate level FR 5120 Minimum Grade of D or Graduate level FR 5210 Minimum Grade of D or Graduate level FR 5220 Minimum Grade of D<br>
<table>
<thead>
<tr>
<th>Fall 2022</th>
<th>CS6840</th>
<th>6840 Intro Machine Learning CS Computer Science</th>
<th>3</th>
<th>This course offers an introduction to the field of probabilistic machine learning. Examples are drawn from sensor signal exploitation, biology, text processing, computer vision, and robotics. Key techniques are demonstrated and implemented in MATLAB.</th>
<th>GR LE Lecture</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2022</td>
<td>CS1200R</td>
<td>1200R Intro Discrete Struct Rec CS Computer Science</td>
<td>0</td>
<td>Practical training in the techniques and skills of archive and museum work, including artifact and archival preservation, documentary film making, exhibit design technology, archival technology, documenting the built environment, field study, and outreach. Titles vary.</td>
<td>UG RE Recitation</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HST7820</td>
<td>7820 Practica Archives Museum HST History</td>
<td>1</td>
<td>An introduction to the language of business Spanish with insight into Spain and Latin America within the global economy.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN5250</td>
<td>5250 Business Spanish I SPN Spanish</td>
<td>3</td>
<td>Musical techniques and skills of archivist and museum work, including artifact and archival preservation, documentary film making, exhibit design technology, archival technology, documenting the built environment, field study, and outreach. Titles vary.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUA4220</td>
<td>4220 Applied Music MUA Music: Applied Music</td>
<td>2</td>
<td>Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music.</td>
<td>UG IS Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE6470L</td>
<td>6470L Antenna Thy Design Lab EE Electrical Engineering</td>
<td>1</td>
<td>This course offers an introduction to the field of probabilistic machine learning. Examples are drawn from sensor signal exploitation, biology, text processing, computer vision, and robotics. Key techniques are demonstrated and implemented in MATLAB.</td>
<td>GR LB Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HST7330</td>
<td>7330 Seminar Middle East Hist HST History</td>
<td>3</td>
<td>Examinations of the history of the Middle East from the 7th century to the present. Topics vary.</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GER2020</td>
<td>2020 Intermediate German II GER German</td>
<td>3</td>
<td>Grammar review, reading, and discussion of selected texts with practice speaking and writing the language.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME6220</td>
<td>6220 Mech Sys Model &amp; Design ME Mechanical and Materials Eng</td>
<td>3</td>
<td>Modeling of complex mechanical systems as a set of simple, linear or nonlinear components for the purpose of design.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>URS3460</td>
<td>3460 Public Personnel Admin URS Urban Affairs</td>
<td>3</td>
<td>Methods of employment, training, compensation, and employee relations in various levels of civil service. Examine organizations of public employees.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>STT7960</td>
<td>7960 Topics in Stat and Prob STT Statistics</td>
<td>1</td>
<td>Topics in statistics and probability.</td>
<td>GR IS Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>COM4810</td>
<td>4810 Independent Study COM Communication</td>
<td>1</td>
<td>Centers on the effective implementation of various literacy instructional practices, the evidence behind the practices and their practical application in PK-12 classrooms.</td>
<td>UG IS Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED7903</td>
<td>7903 Instruct Practices in Literacy ED Education</td>
<td>1</td>
<td>Faculty-directed readings and research.</td>
<td>UG IS Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PTX6001</td>
<td>6001 Intro to Biochemistry PTX Pharmacology/Toxology</td>
<td>3</td>
<td>This course provides an introduction to the application of biochemistry to the pharmacology program. Students will learn fundamental concepts in the structural and thermodynamic aspects of the organization of proteins. The kinetics and thermodynamics of protein-ligand interactions are discussed for non-cooperative, cooperative, and allosteric binding events. The use of mechanistic and kinetic information in enzyme characterization and drug action are discussed.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HST7910</td>
<td>7910 History Internship HST History</td>
<td>1</td>
<td>Applies skills learned in coursework to work and/or study outside the academy. In ways that benefit a student's educational experience. Approved and supervised by the Director of Graduate Studies, and ranges from 100 to 300 hours of work. May be repeated for a total of 3 credit hours.</td>
<td>GR IN Internship</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ART4090</td>
<td>4090 Studies in Art ART Art</td>
<td>3</td>
<td>Problems and approaches to art. Includes cross-media and interdisciplinary studies.</td>
<td>UG LB Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUS1560</td>
<td>1560 Keyboard Musicianship II MUS Music</td>
<td>1</td>
<td>Class instruction in functional keyboard skills including technique, chord construction and connection, improvisation, harmonization, playing by ear, sight reading, score reading, ensemble playing, and performing repertoire pieces.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NEU4020</td>
<td>4020 Sr Cap Neuro Lab Res NEU Neurosciences</td>
<td>2</td>
<td>Senior neuroscience majors will write a scientific research article encompassing the neuroscience research they have done and deliver an oral presentation summarizing their research project in the NCBP Departmental Honors Forum. Senior standing, in the Departmental Honors Program, and a minimum of 5 credits of NEU 4990. Integrated Writing Course.</td>
<td>UG IS Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS6200</td>
<td>6200 Politics &amp; the Novel PLS Political Science</td>
<td>3</td>
<td>Senior neuroscience majors will write a scientific research article encompassing the neuroscience research they have done and deliver an oral presentation summarizing their research project in the NCBP Departmental Honors Forum. Senior standing, in the Departmental Honors Program, and a minimum of 5 credits of NEU 4990. Integrated Writing Course.</td>
<td>UG IS Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDT7820</td>
<td>7820 Developing Multimedia EDT Educational Technology</td>
<td>3</td>
<td>Students use elements of instructional design and storyboarding techniques to translate instruction into various types of multimedia presentations.</td>
<td>GR LL Lecture/Lab Combination</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EC3010</td>
<td>3010 Econ of Global Money M Mar EC Economics</td>
<td>3</td>
<td>Analysis of behavior and significance of money, credit, debt, and the banking system.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Description</td>
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<tr>
<td>HUM7500</td>
<td>7500</td>
<td>Humanities Capstone</td>
<td>Students enrolled in the Humanities Capstone course will write a 30-page research paper under the direction of a relevant graduate faculty member. Students should be near completion of their other MHUM coursework and must get advisor approval to enroll.</td>
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<tr>
<td>EE5210</td>
<td>5210</td>
<td>Linear Systems I</td>
<td>Continuous-time signals and systems, time domain analysis, Laplace transform, Fourier series, Fourier transform, Bode analysis. Various approaches to system and signal modeling are also discussed.</td>
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<tr>
<td>HST8870</td>
<td>6870</td>
<td>Special Topics in Hist</td>
<td>Examine special topics in the advanced study of history. Topics vary.</td>
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<tr>
<td>BME6703R</td>
<td>6703R</td>
<td>Medical Imaging Recitation</td>
<td>Required recitation for BME 6703.</td>
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<tr>
<td>ART6010</td>
<td>6010</td>
<td>Ind Study in Art History</td>
<td>Intensively individually directed work in art history with faculty consultation and supervision.</td>
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</tr>
<tr>
<td>EGR3980L</td>
<td>3980L</td>
<td>Special Topics in EGR Lab</td>
<td>Required laboratory for EGR 2980.</td>
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<tr>
<td>KNH7830</td>
<td>7830</td>
<td>Biomechanics</td>
<td>Biomechanics and functional anatomy of the human body, with application of biophysical principles to normal joint structure and function, pathomechanics, and clinical analysis of posture, gait, and other movements. Includes instruction in measurement methods.</td>
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<tr>
<td>MIS3810</td>
<td>3810</td>
<td>An intro to Business Data</td>
<td>An introduction to the fundamentals of identifying, gathering, managing, visualizing, and analyzing structured, semi-structured, and unstructured data for business decision-making and performance.</td>
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<tr>
<td>MTH2320</td>
<td>2320</td>
<td>Calculus II</td>
<td>Vector functions and their derivatives, motion in two and three dimensions, lines, planes, and parametric surfaces, spherical and cylindrical coordinates. Partial derivatives and multiple integrals in two and three dimensions. Vector fields, line and surface integrals. Green’s, Divergence, and Stoke’s theorems.</td>
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<tr>
<td>MUS3310L</td>
<td>3310L</td>
<td>Adv Orch Cond Lab</td>
<td>Builds upon the previously gained conducting experiences and knowledge.</td>
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<tr>
<td>ENG6200</td>
<td>6200</td>
<td>Studies in British Lit</td>
<td>Intensive study of British literary history and/or the work of individual British writers. Intended to develop an understanding of literature within the contexts of the authors life, literary production, and historical background.</td>
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<tr>
<td>MTH1270</td>
<td>1270</td>
<td>Intro to Functions &amp; Modeling</td>
<td>An application of mathematics to modeling real-world problems in STEM and other disciplines. Analysis of functions and their graphs from the viewpoint of rates of change include linear, exponential, and other classes of functions.</td>
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<tr>
<td>ED6580</td>
<td>6580</td>
<td>Sttl Tchnq MAVis Arts</td>
<td>Candidates, under the direct supervision of an experienced classroom teacher, are assigned to a school for intensive teaching experience grades p-12 in Multi-Age Visual Arts.</td>
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</tr>
<tr>
<td>IT3410</td>
<td>3410</td>
<td>Virtual Rty Instr Dsgn</td>
<td>Fundamentals of instruction through 3D Virtual Reality Environments. Covers the basics of 3D graphics, including a number of 3D engines with focus on the Unity3D engine. Uses an approach to a hypothetical training objective through ADDIE.</td>
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<tr>
<td>FRS5250</td>
<td>5250</td>
<td>Business French</td>
<td>An introduction to the language and practices of business French with insight into France’s place in the global economy. Taught in French.</td>
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<tr>
<td>MUE8920</td>
<td>6920</td>
<td>Vocal Jazz Ensemble</td>
<td>Development of performance skills in vocal jazz. Emphasis on jazz style and techniques, improvisation, and jazz theory. Audition required.</td>
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<tr>
<td>STT6660</td>
<td>6660</td>
<td>Ind Read Stat and Prob</td>
<td>Independent reading in statistics and probability.</td>
<td></td>
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</tr>
<tr>
<td>ATR3610</td>
<td>3610</td>
<td>Assess Athletic Injury I</td>
<td>Assessment and skills for lower body athletic injuries/conditions of the physically active.</td>
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</tr>
<tr>
<td>ARA3110</td>
<td>3110</td>
<td>Arabic Conversation I</td>
<td>Language practicum for intermediate students of Arabic, designed to expand conversational skills in Modern Standard Arabic. Department Managed Prerequisite(s): Undergraduate level ARA 2020 Minimum Grade of D/NoP</td>
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<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Department</td>
<td>Credits</td>
<td>Course Description</td>
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<tr>
<td>Fall 2022</td>
<td>MUS3340</td>
<td>3340 Music in the Elementary</td>
<td>MUS Music</td>
<td>3</td>
<td>Curricular and instructional elements for PK-12 English language teachers, including: theoretical knowledge, goal setting, needs assessment, syllabus writing, lesson planning, instructional techniques, differentiated instruction, activity creation, inclusive/authentic assessment.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED4570</td>
<td>4570 Multi-Age TESOL Methods</td>
<td>ED Education</td>
<td>3</td>
<td>Intermediate level of skills and knowledge in Fencing: Competitive. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1220</td>
<td>1220 Fencing: Competitive PhD Candidacy Exam</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1</td>
<td>Conduct supervised thesis research on a contemporary topic in the field of microbiology and immunology via hands-on laboratory experimentation. Study and gain knowledge of the scientific method and explore new methodologies in the field. Understand how to conduct a well-controlled scientific experiment and critically evaluate data.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS8690</td>
<td>8690 Computer Science</td>
<td>CS Computer Science</td>
<td>1</td>
<td>Examination that tests for depth of understanding in a chosen computer science and computer engineering research area. Includes a written proposal for a Ph.D. topic and an oral examination, that is open to the public.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUE2900</td>
<td>2900 University Chorus</td>
<td>MUE Music Ensembles</td>
<td>1</td>
<td>Development of choral and vocal skills. Choral literature from a wide range of historical and compositional styles. No audition required.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR7612</td>
<td>7612 Psych MH NP Pract II</td>
<td>NUR Nursing</td>
<td>6</td>
<td>The focus is on comprehension and clinical reasoning in the selection and use of a variety of therapeutic modalities used in the management of individuals and families with acute and/or chronic alterations in psychiatric/mental health status and functioning across the lifespan. Pharmacologic and non-pharmacologic treatment modalities are explored. Advanced practice role development is incorporated.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>DOS9040</td>
<td>9040 Org. in Global Environ.</td>
<td>DOS Doctor Org. Studies</td>
<td>3</td>
<td>Concepts, models and international linkages for understanding organizational performance in a global world are provided. Emphasis is placed on issues facing 21st century leaders and on preparation for effective management in an interconnected world.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ISM8300</td>
<td>8300 Independent Research</td>
<td>ISM Inters. Appl. Sci. and Math</td>
<td>1</td>
<td>The research work to be performed will be supervised by an ISM Program Faculty member. The scope and milestones required for the independent research shall be decided upon by the faculty member in consultation with the student.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL9750</td>
<td>9750 Directed Study</td>
<td>EDL Educational Leadership</td>
<td>1</td>
<td>1 Designed for students enrolled in a program requiring a research study. Students and their assigned program advisors collaboratively determine the course requirements.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ART5690</td>
<td>5690 Printmaking &amp; Screenprinting</td>
<td>ART Art</td>
<td>3</td>
<td>Development of personalized concepts and individual aesthetic expression in printmaking with an emphasis in the area of screenprinting. This course has a fee that is non-refundable once the term begins.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDS6690</td>
<td>6690 Clin Prc Remed Interv Spec</td>
<td>EDS Education - Special Education</td>
<td>3</td>
<td>Use assessment data to plan and implement remediation in a school setting. Write professional case study integrating assessment and tutoring data. Includes a minimum of 24 hours in a P-12 school setting.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE7410</td>
<td>7410 Power Electronics I</td>
<td>EE Electrical Engineering</td>
<td>3</td>
<td>Silicon and silicon carbide power devices; Fast-recovery, ultra-fast-recovery, and p-n junctions and Schottky power diodes; performance parameters; Power MOSFETs and IGBTs; static and dynamic characteristics: voltage and current stress; Pulse-width modulated (PWM) DC-DC power converters: topologies of power stages of power converters, buck-boost, flyback, forward, half-bridge, full-bridge, and push-pull power stages.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY4030</td>
<td>4030 Practicum in Applied Psy</td>
<td>PSY Psychology</td>
<td>3</td>
<td>Supervised work in an applied psychological setting consistent with students' individual interests (e.g., mental health agency, industrial, or organizational setting). Graded pass/unsatisfactory.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUS1310</td>
<td>1310 Beg Guitar Class I</td>
<td>MUS Music</td>
<td>1</td>
<td>Focuses on the development of good playing habits through melody and chord playing. Tuning, care of the guitar, and tablature reading covered, various guitar styles demonstrated. Students provide own instruments. Electric guitars not suitable.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH4450</td>
<td>4450 Acting IV</td>
<td>TH Theatre</td>
<td>3</td>
<td>Student actors are trained in approaches to a range of twentieth and twenty-first century texts, doing scenes and/or monologues from such playwrights as Albee, Shepard, Mamet, Ruhl, Rebeck, LaBute, etc. Emphasis on contemporary acting texts and styles.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SLI4520</td>
<td>4520 Ed Interp: Sign to Eng.</td>
<td>SLU Sign Language Interpreting</td>
<td>3</td>
<td>Enhancing sign to English skills for interpreters working in K-12 educational settings with deaf students. Emphasizes requisite skills for the Educational Interpreter Performance Assessment (EIPA).</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES4750</td>
<td>4750 Biological Safety</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>2</td>
<td>Identification, handling, and containment of potentially hazardous biological materials, including microorganisms and recombinant DNA.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH2010</td>
<td>2010 Army Fitness Training IV</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Army Fitness Training. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ITA2020</td>
<td>2020 Intermediate Italian II</td>
<td>ITA Italian</td>
<td>3</td>
<td>Continued study of the Italian language. Grammar review, reading, and discussion of selected texts, with practice in speaking and writing the language.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MIT990</td>
<td>9900 Microbiology Thesis Research</td>
<td>MIT Microbiology &amp; Immunology</td>
<td>2</td>
<td>Conduct supervised thesis research on a contemporary topic in the field of microbiology and immunology via hands-on laboratory experimentation. Study and gain knowledge of the scientific method and explore new methodologies in the field. Understand how to conduct a well-controlled scientific experiment and critically evaluate data.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1450B</td>
<td>1450B Rape Def Strat Basic</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Rape Defense Strategies: Basic. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>Semester</td>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Distribution</td>
<td>Type</td>
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<tr>
<td>Fall 22</td>
<td>STT4160</td>
<td>4</td>
<td>Short Term Actuarial Math</td>
<td>STT Statistics</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>TH1470</td>
<td>1470</td>
<td>Acting Aesthetics</td>
<td>TH Theatre</td>
<td>UG LL Lecture/Lab Combination</td>
</tr>
<tr>
<td>Fall 22</td>
<td>TEG2910</td>
<td>2910</td>
<td>Main Fund/Indust Mech</td>
<td>TEG Technical Engineering</td>
<td>UG LL Lecture/Lab Combination</td>
</tr>
<tr>
<td>Fall 22</td>
<td>FR4210</td>
<td>4210</td>
<td>Literature of Middle Age</td>
<td>FR French</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>EDL7910</td>
<td>7910</td>
<td>Curr Design &amp; Evaluation</td>
<td>EDL Educational Leadership</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>ENG1030</td>
<td>1030</td>
<td>Advanced Writing; ESL</td>
<td>ENG English</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>CNL7261</td>
<td>7261</td>
<td>Systems Theory</td>
<td>CNL Counseling</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>PLS4580</td>
<td>4580</td>
<td>Latin American Politics</td>
<td>PLS Political Science</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>HST7850</td>
<td>7850</td>
<td>Archival Preservation</td>
<td>HST History</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>EDL7675</td>
<td>7675</td>
<td>Tchr Ldr Capstone Exit</td>
<td>EDL Educational Leadership</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>Fall 22</td>
<td>CS5160</td>
<td>5160</td>
<td>Computer Science Fundame</td>
<td>CS Computer Science</td>
<td>GR LL Lecture/Lab Combination</td>
</tr>
<tr>
<td>Fall 22</td>
<td>NUR4440</td>
<td>4440</td>
<td>Public Health Nursing</td>
<td>NUR Nursing</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>HST7650</td>
<td>7650</td>
<td>Museum Admin Collections</td>
<td>HST History</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>CHM7200</td>
<td>7200</td>
<td>Adv Inorganic Chem I</td>
<td>CHM Chemistry</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>SOC4090</td>
<td>4090</td>
<td>Studies in Selected Subj</td>
<td>SOC Sociology</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>EDL7980</td>
<td>7980</td>
<td>Leadership with Diverse Pops</td>
<td>EDL Educational Leadership</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>Fall 22</td>
<td>PSY2410</td>
<td>2410</td>
<td>Childhood &amp; Adolescence</td>
<td>PSY Psychology</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>MKT4100</td>
<td>4100</td>
<td>Digital Marketing</td>
<td>MKT Marketing</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 22</td>
<td>CEG3310</td>
<td>3310</td>
<td>Computer Organization</td>
<td>CEG Computer Engineering</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Course Code</td>
<td>Credit Hours</td>
<td>Course Title</td>
<td>Department</td>
<td>Course Description</td>
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<tr>
<td>NUR7201</td>
<td>7201</td>
<td>Acute Adult Hth Prob I</td>
<td>NUR Nursing</td>
<td>Focus is on complex symptom management related to acute and emergent physiological alterations in renal, cardiovascular, pulmonary, and integumentary function, along with multisystem disorders. Health promotion, health maintenance and health restoration are emphasized, along with risk assessment and prevention strategies. The pharmacological management of complex symptomatology and advanced role development are integrated into the course.</td>
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<tr>
<td>LEP0320</td>
<td>0320</td>
<td>Writing Workshop Level 3</td>
<td>LEP LEAP</td>
<td>Writing workshop (revision, editing and lab) for high-intermediate ESL students. This course has a fee that is non-refundable once the term begins.</td>
<td></td>
</tr>
<tr>
<td>SPN3500</td>
<td>3500</td>
<td>Spanish Ambassador Program</td>
<td>SPN Spanish</td>
<td>Professor-led study abroad program in a Spanish-speaking country, such as Mexico, Puerto Rico, Spain, etc. Taught in Spanish. Department Managed Prerequisite(s): Undergraduate level SPN 2620 Minimum Grade of D.</td>
<td></td>
</tr>
<tr>
<td>CTE6150</td>
<td>6150</td>
<td>CTE Practicum - Grad IS Mgt Research Project</td>
<td>CTE Career and Technical Education</td>
<td>Teaching experience integrated with academic instruction; application of learned concepts to practical situations within the candidates teaching field. Coordinated by a university faculty member who observes the candidate in a school setting.</td>
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<tr>
<td>MIS7900</td>
<td>7900</td>
<td>MIS Management Information Systems</td>
<td></td>
<td>The Capstone IT Project provides students the opportunity to individually explore a problem or issue within the IT field setting. This course has a fee that is non-refundable once the term begins.</td>
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</tr>
<tr>
<td>MIS3650</td>
<td>3650</td>
<td>MIS Management Information Systems</td>
<td></td>
<td>Introduction to Radio Frequency Identification (RFID) with particular focus on business automation; hands-on experience with using RFID equipment and preparation for the RFID certification.</td>
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</tr>
<tr>
<td>NUR8885</td>
<td>8885</td>
<td>Sys App Prog Impl &amp; Eval</td>
<td>NUR Nursing</td>
<td>This is an advanced DNP course focusing on the development and evaluation of proposed solutions for systems level programs and respective outcomes. Identify project, project outcomes, and evaluation. Project Proposal Defense Efforts</td>
<td></td>
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<tr>
<td>EE8000L</td>
<td>8000</td>
<td>Select Topics in EE Lab</td>
<td>EE Electrical Engineering</td>
<td>Laboratory for EE 8000.</td>
<td></td>
</tr>
<tr>
<td>SPN6320</td>
<td>6320</td>
<td>Span in Spanish-Amer Lit</td>
<td>SPN Spanish</td>
<td>Readings and reports in the novel, poetry, and drama of selected Spanish-American authors. Representative works of Borges, Garcia Marquez, Rulfo, Paz, Vargas Llosa, Sanchez, and others.</td>
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</tr>
<tr>
<td>EE7470</td>
<td>7470</td>
<td>EM Simulation Methods</td>
<td>EE Electrical Engineering</td>
<td>Direct solution of Maxwell’s differential equations in the time domain using the finite-difference time-domain (FTDT) method. Absorbing boundary conditions and waveguide or plane wave excitation methods. Application to the solution of problems relevant to radiation, radar cross section (or scattering) and microwave circuit design. Wave equation and integral implementation. Application of one-and two-dimensional EM problems. Comparison with the finite element method. Department Managed Prerequisite(s): Graduate level EE 5450 Minimum Grade of B and (Graduate level MTH 5330 Minimum Grade of B or Graduate level MTH 6810 Minimum Grade of B or Graduate level PHY 6730 Minimum Grade of B).</td>
<td></td>
</tr>
<tr>
<td>MKT4600</td>
<td>4600</td>
<td>Advanced Retailing</td>
<td>MKT Marketing</td>
<td>For students who plan to pursue a career in retailing or who plan to develop and grow a business. Advanced instruction and skill development through a focus on such key topics as retail formats, multichannel retailing, store layout and location, and the retail and services communications mix.</td>
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</tr>
<tr>
<td>HST4870</td>
<td>4870</td>
<td>Special Topics in Hist</td>
<td>HST History</td>
<td>Examines special topics in the advanced study of history. Integrated Writing course.</td>
<td></td>
</tr>
<tr>
<td>KNH3840</td>
<td>3840</td>
<td>Practicum - Hth, PE &amp; Rec</td>
<td>KNH Kinesiology &amp; Health</td>
<td>Supervised field work for junior students seeking certification or a concentration in a specific area. Topics vary. Contact hours vary according to subject. May be taken for letter grade or pass/unsatisfactory.</td>
<td></td>
</tr>
<tr>
<td>ENG4710</td>
<td>4710</td>
<td>Intro to Linguistics</td>
<td>ENG English</td>
<td>A survey of the scientific study of language. Focuses on describing and explaining languages in their natural environment, including phonetics, phonology, morphology, syntax, semantics, pragmatics, sociolinguistics, and the history of the English language.</td>
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<tr>
<td>MUS1210</td>
<td>1210</td>
<td>Music Listening</td>
<td>MUS Music</td>
<td>Listening skills and aural analysis through musical examples from a variety of periods and cultures. Principal styles, genres, and composers of Western music from the Middle Ages to the present.</td>
<td></td>
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<tr>
<td>EED4650</td>
<td>4650</td>
<td>Literacy Assess &amp; Evaluation P-5</td>
<td>EED Elementary Education P-5</td>
<td>Candidates will learn about the main components of literacy, as well as how to choose, administer, and analyze a wide variety of literacy assessments (both reading and writing) to implement in their future classrooms.</td>
<td></td>
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<tr>
<td>PSY8130</td>
<td>8130</td>
<td>Fund. Motion Perception</td>
<td>PSY Psychology</td>
<td>A detailed introduction to visual motion perception, covering historical, psychophysical, neural, computational, and applied perspectives. Department Managed Prerequisite(s): Graduate level PSY 8110 Minimum Grade of D.</td>
<td></td>
</tr>
<tr>
<td>REL6500</td>
<td>6500</td>
<td>Seminar on Am Relig</td>
<td>REL Religion</td>
<td>Seminar examining selected topics related to the history and practice of religion in America.</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Name</td>
<td>Type</td>
<td>Credits</td>
<td>Description</td>
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<tr>
<td>PPH7430</td>
<td>Health Awareness and Adv</td>
<td>UG</td>
<td>3</td>
<td>This course introduces the concepts, principles, and practices of health communications. It utilizes social/behavioral theory to develop a comprehensive, integrated plan that provides communications targeting interpersonal, community, and policy/system comm. Students will learn how to communicate risk, identify and segment target audiences, develop culturally appropriate messages and materials, social marketing and using new media, communicating with the media and policy makers, and evaluation.</td>
<td></td>
</tr>
<tr>
<td>LEP0130</td>
<td>Grammar - Level 1</td>
<td>UG</td>
<td>0</td>
<td>Grammar for beginning ESL students. This course has a fee that is non-refundable once the term begins.</td>
<td></td>
</tr>
<tr>
<td>STT3600</td>
<td>Applied Statistics I</td>
<td>UG</td>
<td>3</td>
<td>Introduction to probability, random variables and their expectations, some commonly used discrete and continuous distributions, concept of random sampling and sampling distributions. Use of computer software packages for simulating, summarizing, and displaying data.</td>
<td></td>
</tr>
<tr>
<td>PHY6430</td>
<td>Complex Nat. Systems</td>
<td>UG</td>
<td>4</td>
<td>Explores quantitative analysis and probabilistic forecasting of the behavior of complex nonlinear natural and human systems. Methods of analysis included fractals to quantify spatial, size, and temporal scaling and chaos to study sensitivity to initial conditions and feedback. Modeling includes self-organization and cellular automata. Systems studied include seismology, chemistry, biochemistry, hydrology, medicine, geography, and coupled human and natural systems.</td>
<td></td>
</tr>
<tr>
<td>ISG7220</td>
<td>Intervention Specialist Gifted</td>
<td>GR</td>
<td>3</td>
<td>Addressing cognitive, affective, social, and physical characteristics of students with gifted and talented needs in the educational setting.</td>
<td></td>
</tr>
<tr>
<td>PTX8013</td>
<td>Communicating in Science</td>
<td>UG</td>
<td>3</td>
<td>A crash course in bringing clarity, plain language and fun to scientific communications.</td>
<td></td>
</tr>
<tr>
<td>DAN2070</td>
<td>Beginning Tap Dance I</td>
<td>UG</td>
<td>1</td>
<td>Group class introduces students to fundamentals of tap dance technique.</td>
<td></td>
</tr>
<tr>
<td>HPR3100</td>
<td>Practicum I - HPR</td>
<td>UG</td>
<td>1</td>
<td>Candidates, mentored by a classroom teacher, participate in the educational process, assist with classroom duties, and participate in the classroom while examining the dynamics of the classroom.</td>
<td></td>
</tr>
<tr>
<td>HLT3400</td>
<td>Concepts of Pharmacology</td>
<td>UG</td>
<td>3</td>
<td>Fundamental pharmacologic principles of physiological responses to drugs, therapeutic outcomes, and potential drug interactions. Prepares for critical thinking in application of pharmacotherapy principles. Non-nursing majors may take the course with instructor permission.</td>
<td></td>
</tr>
<tr>
<td>EE4910</td>
<td>Elec Eng Senior Des I</td>
<td>UG</td>
<td>3</td>
<td>A project-oriented design course integrating design methodology with the principles of major electrical engineering disciplines. Students from working groups, design project definitions, and select faculty advisors according to their interests, needs and knowledge bases. Integrated Writing course.</td>
<td></td>
</tr>
<tr>
<td>CEG4410</td>
<td>Mobile Computing</td>
<td>UG</td>
<td>3</td>
<td>Study networking protocol and system design in mobile computing. Focus on concepts, architecture, design, and performance evaluation of mobile computing principles, protocols and applications, including: wireless TCP, Mobile IP, 802.11, agent techniques, etc.</td>
<td></td>
</tr>
<tr>
<td>FIN4800</td>
<td>Finance in Fin</td>
<td>UG</td>
<td>3</td>
<td>Seminar in a finance topic of current and timely interest. Topics vary.</td>
<td></td>
</tr>
<tr>
<td>IDL7020</td>
<td>Digital Course Development</td>
<td>GR</td>
<td>3</td>
<td>This course introduces a variety of instructional design and teaching techniques to facilitate digital course development.</td>
<td></td>
</tr>
<tr>
<td>CS3170</td>
<td>Mobile App Development</td>
<td>UG</td>
<td>3</td>
<td>Focuses on projects to progressively demonstrate concepts and practical approaches to developing software for mobile devices focusing on iOS devices including any of iPhone, iPod Touch, or iPad. The course covers application design, Apple's core technologies, animation, image processing, video processing, audio, 3D graphics, and built in sensors.</td>
<td></td>
</tr>
<tr>
<td>PPH7810</td>
<td>Foundations of Clinical Ethics</td>
<td>UG</td>
<td>3</td>
<td>This course will provide an introduction to moral philosophy in medicine, emphasizing its historical underpinnings. Specifically, the course will focus on normative ethics as applied to the pluralistic arena of modern healthcare.</td>
<td></td>
</tr>
<tr>
<td>BMB7270</td>
<td>Proteins and Enzymes</td>
<td>UG</td>
<td>3</td>
<td>Also listed as BMS 7670. Current concepts in protein structure and function and the mechanism of enzymatic catalysis.</td>
<td></td>
</tr>
<tr>
<td>EE7010</td>
<td>Linear Systems</td>
<td>GR</td>
<td>3</td>
<td>Graduate level linear engineering methods in finite and infinite dimensions.</td>
<td></td>
</tr>
<tr>
<td>PSY2580</td>
<td>Profiling and Serial Crimes</td>
<td>UG</td>
<td>3</td>
<td>The course covers the history, development, and applications of criminal profiling, as well as exploring serial crimes.</td>
<td></td>
</tr>
<tr>
<td>PTX8014</td>
<td>Integr Pharm/Tox Methods</td>
<td>GR</td>
<td>3</td>
<td>This course provides basic and general principles on animal handling, caring and experimental design. It instructs basic techniques in drug dosing and administration, animal surgery, tissue sample collection. Emphasizes Biomedical Science's current methods.</td>
<td></td>
</tr>
<tr>
<td>CNL8500</td>
<td>Adv Pers Theory &amp; Psych</td>
<td>GR</td>
<td>3</td>
<td>Focuses on the development of personality throughout the life span and associated difficulties that can occur for individuals. Additional emphasis will be given to adaptation and the coping process.</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
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<tr>
<td>Fall 2022</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE5320</td>
<td>5320</td>
<td>Digital System Design</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EEE2000</td>
<td>2000</td>
<td>Electrical Engineering</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PTX8020</td>
<td>8020</td>
<td>Pharmacology/Toxicology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>MUS2140</td>
<td>2140</td>
<td>Music Lab</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CHI5010</td>
<td>5010</td>
<td>Advanced Chinese I</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED6610</td>
<td>6610</td>
<td>Practicum: Anat for Ed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>AYA1010</td>
<td>1010</td>
<td>Specialized Interpreting</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SLI4400</td>
<td>4400</td>
<td>Sign Language Interpreting</td>
<td></td>
<td></td>
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<tr>
<td>EES3140</td>
<td>3140</td>
<td>Sedimentary Petrology</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS2900</td>
<td>2900</td>
<td>Spec Topics in Comp Sci</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Fall 2022 EE5320 Digital System Design**

- **Credits**: 5320
- **Title**: Digital System Design

**Fall 2022 EEE2000 Electrical Engineering**

- **Credits**: 2000
- **Title**: Electrical Engineering

**Fall 2022 PTX8020 Pharmacology/Toxicology**

- **Credits**: 8020
- **Title**: Pharmacology/Toxicology

**Fall 2022 MUS2140 Music Lab**

- **Credits**: 2140
- **Title**: Music Lab

**Fall 2022 CHI5010 Advanced Chinese I**

- **Credits**: 5010
- **Title**: Advanced Chinese I

**Fall 2022 ED6610 Practicum: Anat for Ed**

- **Credits**: 6610
- **Title**: Practicum: Anat for Ed

**Fall 2022 AYA1010 Specialized Interpreting**

- **Credits**: 1010
- **Title**: Specialized Interpreting

**Fall 2022 SLI4400 Sign Language Interpreting**

- **Credits**: 4400
- **Title**: Sign Language Interpreting

**Fall 2022 EES3140 Sedimentary Petrology**

- **Credits**: 3140
- **Title**: Sedimentary Petrology

**Fall 2022 CS2900 Spec Topics in Comp Sci**

- **Credits**: 2900
- **Title**: Spec Topics in Comp Sci
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Year</th>
<th>Section</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
<th>Type</th>
<th>Prerequisites</th>
<th>Department</th>
</tr>
</thead>
<tbody>
<tr>
<td>IT1210</td>
<td>Fall</td>
<td>1210</td>
<td>Intro Photo Design Sci</td>
<td>3</td>
<td>Basic terminology and techniques of photography including posing subjects and using photo editing software to enhance photography. Integrated lecture and lab.</td>
<td>Lecture/Lab</td>
<td>UG LL Lecture/Lab Combinatorial</td>
<td></td>
</tr>
<tr>
<td>PLS6580</td>
<td>Fall</td>
<td>1080</td>
<td>Intro to Public Health</td>
<td>3</td>
<td>Concepts and practices in public health. Students will explore the history, purposes, structures, policies, and programs that contribute to the effort to create an environment that promotes healthful living, with application to domestic and international circumstances.</td>
<td>Lecture</td>
<td>UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>STT6200</td>
<td>Fall</td>
<td>6260</td>
<td>Survival Analysis</td>
<td>3</td>
<td>Censoring and truncation, survival and hazard functions, estimation and hypothesis tests, Cox proportional hazards model; diagnostics of the Cox model; state-of-the-art software for survival analysis models.</td>
<td>Lecture</td>
<td>GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>WGS3250</td>
<td>Fall</td>
<td>3250</td>
<td>Women Multicultural Pers</td>
<td>3</td>
<td>Issues, approaches, and topics in women and gender studies. Explores racial, ethnic, cultural, and other differences among women within the U.S. Titles and topics vary. Integrated Writing course.</td>
<td>Lecture</td>
<td>UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>NUR7211</td>
<td>Fall</td>
<td>7211</td>
<td>Concepts in Cardiov Nsg</td>
<td>3</td>
<td>Examination of physiological concepts, human responses, nursing assessments, and interventions related to actual and potential health problems in adults with cardiovascular alterations.</td>
<td>Lecture</td>
<td>GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>ATR4850</td>
<td>Fall</td>
<td>4850</td>
<td>Surgical Applications</td>
<td>3</td>
<td>Surgical procedures, rehabilitation protocols and research as they pertain to athletic training. Prepares Athletic Training students to counsel regarding patient treatment options and to research current trends in medical procedures.</td>
<td>Lecture/Lab</td>
<td>UG LL Lecture/Lab Combinatorial</td>
<td></td>
</tr>
<tr>
<td>EES4660</td>
<td>Fall</td>
<td>4660</td>
<td>OSHA Compliance</td>
<td>1</td>
<td>Practical application of the theories of safety and health law. Intended for persons having management responsibility for occupational safety and health.</td>
<td>Lecture</td>
<td>UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>ME3210</td>
<td>Fall</td>
<td>3210</td>
<td>System Dynamics</td>
<td>3</td>
<td>Introduces students to the system level modeling of dynamic engineering systems including, but not restricted to, linear and rotational mechanical, fluid, thermal, and electrical systems. Modeling of control devices (motors, heaters, pumps) is addressed.</td>
<td>Lecture</td>
<td>UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>ASM7972</td>
<td>Fall</td>
<td>7972</td>
<td>Aerospace Research II</td>
<td>1</td>
<td>Introduction to Aerospace Medical Research II will build upon the concepts studied in Aerospace Medical Research I and further the techniques by which contemporary scientific inquiry are performed. This course will assist students in the completion of their aerospace medicine research project required for graduation.</td>
<td>Seminar</td>
<td>GR SE Seminar</td>
<td></td>
</tr>
<tr>
<td>EES4660</td>
<td>Fall</td>
<td>4750</td>
<td>Lab in Biological Anthro</td>
<td>0</td>
<td>Laboratory exercises to accompany ATH 2100, Introduction to Biological Anthropology.</td>
<td>Lab</td>
<td>UG LB Lab</td>
<td></td>
</tr>
<tr>
<td>PLS6580</td>
<td>Fall</td>
<td>6160</td>
<td>Stratigraphy &amp; Sed.</td>
<td>4</td>
<td>Clastic and carbonate sedimentary rocks, their mineralogy, texture, provenance, and classification. Principles, rules, and geologic and geophysical correlation techniques. Fluid flow sediment transport and deposition, sedimentary structures, and depositional environments. Three hours lecture, two hours lab.</td>
<td>Lecture</td>
<td>GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>ISG7240</td>
<td>Fall</td>
<td>6530</td>
<td>AYA Int Pt II Stit T ISS</td>
<td>6</td>
<td>Candidates, under the direct supervision of an experienced classroom teacher, are assigned to a school for intensive teaching experience in grades 7-12 in Integrated Social Studies.</td>
<td>Internship</td>
<td>GR IN Internship</td>
<td></td>
</tr>
<tr>
<td>EES4660</td>
<td>Fall</td>
<td>6580</td>
<td>Latin American Politics</td>
<td>3</td>
<td>Introduces students to politics in Central America, South America and the Caribbean, focusing on political and economic development. Considers major debates in comparative politics about a variety of issues, including democracy and democratization.</td>
<td>Lecture</td>
<td>GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>ME6750</td>
<td>Fall</td>
<td>6750</td>
<td>Mat. Characterization</td>
<td>4</td>
<td>Principles of characterizing materials with respect to crystal structure, micro/nano structure, and chemical composition using particle or wave-based probes (visible lights, X-rays, and energetic electrons). The interactions between the probes and materials are discussed. Characterization at both qualitative and quantitative level will be elucidated. Laboratory exercises are included.</td>
<td>Lecture/Lab</td>
<td>GR LL Lecture/Lab Combinatorial</td>
<td></td>
</tr>
<tr>
<td>ART5660</td>
<td>Fall</td>
<td>5660</td>
<td>Printmaking: Relief</td>
<td>3</td>
<td>Development of personalized concepts and individual aesthetic expression in printmaking with an emphasis in the area of relief. This course has a fee that is non-refundable once the term begins.</td>
<td>Lecture</td>
<td>GR LB Lab</td>
<td></td>
</tr>
<tr>
<td>FR3820</td>
<td>Fall</td>
<td>5820</td>
<td>Applied Elem Fr Instuct</td>
<td>1</td>
<td>French majors and minors assist FR 1010 or FR 1020 course instructors in conducting classes. Taught in French.</td>
<td>Independent</td>
<td>UG IS Independent Study</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GER3980</td>
<td>3980</td>
<td>Studies in Select Subj</td>
<td>GER</td>
<td>German</td>
<td>1</td>
<td>Individual research project approved and supervised by a full-time faculty member. Taught in German. &lt;b&gt;Department Managed Prerequisite(s): Undergraduate level GER 3110 Minimum Grade of D or Undergraduate level GER 3120 Minimum Grade of D or Undergraduate level GER 3210 Minimum Grade of D or Undergraduate level GER 3220 Minimum Grade of D or Undergraduate level GER 3250 Minimum Grade of D;&lt;/b&gt; UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SCM3200</td>
<td>3200</td>
<td>Basics of SCM</td>
<td>SCM</td>
<td>Supply Chain Management</td>
<td>3</td>
<td>Fundamentals of supply chain management, including the strategic role of the supply chain, key drivers of supply chain performance, and analytical tools and techniques for supply chain analysis. Cases and in-class exercises. UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MKT7350</td>
<td>7350</td>
<td>Applied Business Planning Cmnrciztn</td>
<td>MKT</td>
<td>Marketing</td>
<td>3</td>
<td>Applied Business Planning is a course designed to provide students with contemporary entrepreneurial experience by solving real business challenges and working with local technology driven entrepreneurs. Students learn to evaluate real business and commercialization opportunities by using skills in market analysis, problem-solving, team-building, customer discovery, and business planning. Students team up and serve as consultants to these entrepreneurs with the final product being a pitch deck, directed deliverables, and a customer discovery overview. These deliverables will create value for the entrepreneur and help progress the business. This course is intended for MBA students in the Interdisciplinary Business Concentration. UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM7210</td>
<td>7210</td>
<td>Adv Inorganic Chem II</td>
<td>CHM</td>
<td>Chemistry</td>
<td>2</td>
<td>Thorough examination of the chemistry of metals stressing the transition elements, ligand field theory, and mechanisms of inorganic reactions. GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED4010</td>
<td>4010</td>
<td>Adv Rdg in Content Area</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>Reading in the content area that includes instruction in organizing instruction, use of protocols for oral language development, strategies for word skill development, reading comprehension and assessment for instructional purposes. UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ART5970</td>
<td>5970</td>
<td>Museology &amp; Gallery Mgt</td>
<td>ART</td>
<td>Art</td>
<td>3</td>
<td>Supervised independent field experience and practical work in all areas of Art Museum management in the university and greater Dayton area communities. Each student handled as a tutorial intern. GR IS Independen t Study</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ANT7020</td>
<td>7020</td>
<td>Special Dissection</td>
<td>ANT</td>
<td>Anatomy</td>
<td>1</td>
<td>An independent study course in advanced anatomical dissection. Students undertake special cadaver donor prosections for use in the anatomy courses. &lt;b&gt;Department Managed Prerequisite(s): Graduate level ANT 7110 Minimum Grade of C;&lt;/b&gt; GR LB Lab Study</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LEP0550</td>
<td>0550</td>
<td>LEAP Pronunciation Imp.</td>
<td>LEP</td>
<td>LEAP</td>
<td>0</td>
<td>The course provides high-intermediate to advanced non-native English speakers with the skills they need to improve their intelligibility when speaking English. In-class activities and outside practice focus on the most important aspects of North American English pronunciation. Topics include the vowel and consonant sounds of NAE, the rhythm and music aspects such as syllable stress and intonation, and how to use the voice and articulators to improve accuracy of speech production. UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE4000</td>
<td>4000</td>
<td>Discrete Linear Systems</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>3</td>
<td>Discrete time signals and systems theory, the z-transform theory, input/output relationships, discrete Fourier transform, IIR and FIR filter design, and sampling. UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW6640</td>
<td>6640</td>
<td>SW Field Ed Seminar I</td>
<td>SW</td>
<td>Social Work</td>
<td>1</td>
<td>Designed to integrate Field Education I experience and coursework. Offered concurrently with foundation fieldwork. GR SE Seminar</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MP3990</td>
<td>3990</td>
<td>Studies Select Subj</td>
<td>MP</td>
<td>Motion Picture</td>
<td>1</td>
<td>Practical experience or research in topics in the field of motion pictures. Topics vary. UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED7020</td>
<td>7020</td>
<td>Princ/Pract/Learn - 4-5</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>This course expands the Early Childhood educator's understanding of the development of the young child in pre-adolescence and aligns developmentally appropriate pedagogical strategies and practices for effective teaching and learning. GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS6900</td>
<td>6900</td>
<td>Special Topics in CS</td>
<td>CS</td>
<td>Computer Science</td>
<td>1</td>
<td>Special topics in computer science &lt;/b&gt; GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SAA6652</td>
<td>6652</td>
<td>Intl Internship in SAHE</td>
<td>SAA</td>
<td>Student Affairs in Higher Ed</td>
<td>3</td>
<td>This higher education field-based experience provides students with supervision and advanced professional practice in direct service delivery and organizational consultation outside of the continental United States. GR IN Internship</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PS18590</td>
<td>9580</td>
<td>Integrative Psycho.</td>
<td>PSI</td>
<td>Professional Psychology</td>
<td>3</td>
<td>This course explores integrative approaches to psychotherapy. The course will expose students to current perspectives on psychotherapy integration and the history of the integrative movement. Students will also have the opportunity to examine and apply a variety of strategies for integration, as well as examine issues and challenges to developing an integrative stance. GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG3420</td>
<td>3420</td>
<td>Post-Colonial Texts</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Representative works of established and emerging writers from the post-colonial world and the diaspora. UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG3500</td>
<td>3500</td>
<td>Language for Teachers</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Introduction to language acquisition, linguistics, language diversity, grammar, and sentence structure with an emphasis on pedagogy. UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO3160L</td>
<td>3160L</td>
<td>Vertebrate Zoology Lab</td>
<td>BIO</td>
<td>Biology</td>
<td>0</td>
<td>Required laboratory for BIO 3160. UG LB Lab</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG6120</td>
<td>6120</td>
<td>Managing Sofw/Dev Process</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>3</td>
<td>Discusses software development processes, models, and techniques necessary to successfully develop large-scale software and presents the Capability Maturity Model (CMM). Students will participate in the development of a software project. &lt;b&gt;Department Managed Prerequisite(s): Graduate level CEG 6110 Minimum Grade of D;&lt;/b&gt; GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SCM7950</td>
<td>7950</td>
<td>Info Tech &amp; Supply Chain</td>
<td>SCM</td>
<td>Supply Chain Management</td>
<td>3</td>
<td>Information technology as an enabler of improved supply chain performance. Managing material and information outside the factory walls. Includes supply chain technology, ERP systems, e-business and collaborative technologies, synchronizing technologies, and RFID. Recommended processes for the evaluation, selection, and implementation of appropriate technologies. This course has a fee that is non-refundable once the term begins. GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MGT6200</td>
<td>6260</td>
<td>Staffing</td>
<td>MGT</td>
<td>Management</td>
<td>3</td>
<td>This course covers the staffing process. Topics include human resource planning, recruitment, selection, measurement in selection, legal issues in staffing, job analysis, decision making, and retention management.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SOC6400</td>
<td>6400</td>
<td>Qualitative Methods</td>
<td>SOC</td>
<td>Sociology</td>
<td>3</td>
<td>Provides students with an appreciation of a variety of qualitative research techniques including interviews, focus groups, case studies, and observational research.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS7790</td>
<td>7790</td>
<td>Practicum</td>
<td>PLS</td>
<td>Political Science</td>
<td>1</td>
<td>Field experience for students in selected settings. Jointly supervised by faculty and on-site personnel.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO3920</td>
<td>3920</td>
<td>Dept Honors Seminar</td>
<td>BIO</td>
<td>Biology</td>
<td>1</td>
<td>Preparation you for designing honors project. Focus on aspects of research design, literature review, and communication of results. Students will receive detailed guidance in writing the proposal and will present some aspect of the honors project.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LEP0310</td>
<td>0310</td>
<td>Writing - Level 3</td>
<td>LEP</td>
<td>LEAP</td>
<td>0</td>
<td>Writing for high-intermediate ESL students. This course has a fee that is non-refundable once the term begins.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ABST220</td>
<td>7220</td>
<td>Sem on Criminal Justice</td>
<td>ABS</td>
<td>Applied Behavioral Science</td>
<td>3</td>
<td>An investigation of the criminal justice system in the United States and its relation to deviant adult and juvenile behavior.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SOC5320</td>
<td>5320</td>
<td>Sociology of Work</td>
<td>SOC</td>
<td>Sociology</td>
<td>3</td>
<td>Investigation, analysis, and discussion of contemporary theories focusing on the relationship of the individual to work.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FAS2610</td>
<td>2610</td>
<td>Livestock Management</td>
<td>FAS</td>
<td>Food and Agricultural Systems</td>
<td>3</td>
<td>Evaluation of livestock management systems based on animal welfare, environment protection, worker safety and food safety. Topics include proper animal treatment, safe handling of animals, biosecurity, medication, livestock records, facility management, workplace safety, and environmental stewardship.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PS18420</td>
<td>8420</td>
<td>Crisis Intervention</td>
<td>PSI</td>
<td>Professional Psychology</td>
<td>3</td>
<td>Theory and definition of crisis; individual and community support systems and crisis programs in hospitals, suicide and crisis centers, and office, family, and other settings.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN3310</td>
<td>3310</td>
<td>Survey of Spanish Lit</td>
<td>SPN</td>
<td>Spanish</td>
<td>3</td>
<td>Historical survey of Spanish literature from the Middle Ages to contemporary period. Department Managed Prerequisite(s): Undergraduate level SPN 3210 Minimum Grade of D or Undergraduate level SPN 3250 Minimum Grade of D and Undergraduate level SPN 3110 Minimum Grade of D or Undergraduate level SPN 3120 Minimum Grade of D or Undergraduate level SPN 3220 Minimum Grade of D or Undergraduate level SPN 3260 Minimum Grade of D or Undergraduate level SPN 3320 Minimum Grade of D or Undergraduate level SPN 3430 Minimum Grade of D or Undergraduate level SPN 3510 Minimum Grade of D or Undergraduate level SPN 3590 Minimum Grade of D or Undergraduate level SPN 3980 Minimum Grade of D or Undergraduate level SPN 3990 Minimum Grade of D.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MTH6550</td>
<td>6550</td>
<td>Advanced Linear Algebra</td>
<td>MTH</td>
<td>Mathematics</td>
<td>3</td>
<td>Basic principles of linear independence, spanning sets, bases, and dimension. Linear transformations, matrix representations of linear transformations, and determinants. Spectral theory of square matrices, Jordan canonical form. Perron-Frobenius results on positive matrices. Department Managed Prerequisite(s): Undergraduate level MTH 2530 Minimum Grade of D and Undergraduate level MTH 2800 Minimum Grade of D.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EC7280</td>
<td>7280</td>
<td>Economics of Innovation</td>
<td>EC</td>
<td>Economics</td>
<td>3</td>
<td>The course covers a broad range of topics from the business, economics, and social sciences literature of the creation, management, and diffusion of innovations in society. Institutions engaged in the production and dissemination of knowledge are examined in the course. The roles of private and public investments in R&amp;D, joint ventures, market competition, and intellectual property rights are explored. Special emphasis is placed on how firms link technology and strategies to achieve goals and objectives, as well as the impact of innovation on society as a whole. Department Managed Prerequisite(s): Undergraduate level EC 2040 Minimum Grade of D, Undergraduate level EC 2050 Minimum Grade of D, and Graduate level MBA 5200 Minimum Grade of C.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG6720</td>
<td>6720</td>
<td>History of Eng Language</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Study of the ancestry and early growth of the English language, the history of English sounds and inflections, the development of the English vocabulary, and variations in pronunciation and usage in modern British and American English.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR7005</td>
<td>7005</td>
<td>Nur Res &amp; Evid for Pract</td>
<td>NUR</td>
<td>Nursing</td>
<td>3</td>
<td>Critical analysis of the components, methodology, and state of the art of research for nursing to plan change for best practice.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME4920</td>
<td>4920</td>
<td>Capstone Design II</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>2</td>
<td>Second of a two-course sequence in solving realistic engineering design problems. Research in professional literature, application of systems engineering principles, and reporting of technical results. Integrated Writing course. Department Managed Prerequisite(s): Undergraduate level ME 4910 Minimum Grade of D.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EGR1900</td>
<td>1900</td>
<td>Explore Engr Internships</td>
<td>EGR</td>
<td>Engineering</td>
<td>1</td>
<td>Prepares individuals for the engineering internship and job search process through the enhancement of job seeking skills and increased awareness of career development resources.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>COM4710</td>
<td>4710</td>
<td>Topics in Comm</td>
<td>COM</td>
<td>Communication</td>
<td>3</td>
<td>Special topics in the various areas of speech communication.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG7030</td>
<td>7030</td>
<td>Meth &amp; Mat TESOL</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Introduction to research in language and the TESOL field. Emphasis on finding and using library resources, surveying research designs, and understanding and reporting research in the human sciences.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE3320</td>
<td>3320</td>
<td>Digital System Design</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>4</td>
<td>Basics of digital computer hardware and design. Topics include switching algebra and switching functions, logic design of combinational and sequential circuits, storage elements, register-level design, and instrumentation.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>OIS1020</td>
<td>1020</td>
<td>Professional Devel II</td>
<td>OIS</td>
<td>Office Information Systems</td>
<td>1</td>
<td>Professional development in office procedures, dress, personality, leadership, and other aspects of business etiquette.</td>
<td>UG</td>
</tr>
<tr>
<td>CRN</td>
<td>Title</td>
<td>Code</td>
<td>Credits</td>
<td>Description</td>
<td>Type</td>
<td>CR</td>
<td>Section</td>
<td>Instructor</td>
</tr>
<tr>
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<tr>
<td>4010</td>
<td>APS Legal Issues</td>
<td>APS</td>
<td>3</td>
<td>A course to provide opportunities for students to gain knowledge, practice, and study in legal issues of applied business operations. Focus on fundamentals such as the legal system, regulations, tort law, negligence, liability, contracts, insurance, and labor law, etc. as they apply to business and organizational settings.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>5530</td>
<td>Readings in Roman Epic</td>
<td>LAT</td>
<td>3</td>
<td>Virgil's Aeneid, Ovid's Metamorphoses; Lucan, Statius, Valerius Flaccus, and Stilius. Topics include intent and structure of the Aeneid, history and development of the Roman Epic, structure and transitional devices in the Metamorphoses, and the nature of rhetorical epic. Titles vary.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>4120</td>
<td>Applied Sports Cap</td>
<td>PSY</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge within sports psychology. Integrated Writing course.</td>
<td>UG</td>
<td>SE</td>
<td>Seminar</td>
<td></td>
</tr>
<tr>
<td>6310</td>
<td>Virology</td>
<td>M</td>
<td>3</td>
<td>Gain an introduction to the field of virology. Learn the intrinsic properties of viruses that cause human disease. Explore viral structure, genetics, replication, pathogenesis, and epidemiology. Learn how to diagnose, prevent, and control viral infections.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>6750</td>
<td>21st-Century History</td>
<td>HST</td>
<td>3</td>
<td>Examines particular stages of the 21st-century American experience or selected topics (e.g., the Iraq war). Topics vary.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>6975</td>
<td>Cont Sem; MA/PhD</td>
<td>ED</td>
<td>3</td>
<td>Seminar accompanying Multi Age Internship focusing on pedagogical content knowledge in Computer Information Science, assessment of the International Society for Technology in Education standards and the completion of the professional portfolio.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
<td></td>
</tr>
<tr>
<td>1150</td>
<td>Intro to Bus Programming</td>
<td>MIS</td>
<td>3</td>
<td>Introduction to the Visual Basic Programming language for business majors. Students will be able to create Windows applications by the end of the course.</td>
<td>UG</td>
<td>LL</td>
<td>Lecture/Lab</td>
<td></td>
</tr>
<tr>
<td>2000</td>
<td>Engaged Citizenship</td>
<td>SRV</td>
<td>3</td>
<td>Rights, privileges and responsibilities of citizenship in our democracy and the world. Develops skills for engaged citizenship through community-based activities and service-learning projects. Integrated Writing course.</td>
<td>UG</td>
<td>LL</td>
<td>Lecture/Lab</td>
<td></td>
</tr>
<tr>
<td>7960</td>
<td>Org and Admin Public Sch</td>
<td>EDL</td>
<td>3</td>
<td>Principles of democratic school administration; management of teaching and nonteaching personnel; role of administration in facilitating teaching and learning; and school/community relations.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>4121</td>
<td>Industrial Controls</td>
<td>ME</td>
<td>3</td>
<td>Wiring diagram creation, hardware selection, and programmable logic controller design and operation. &lt;b&gt;Department Managed Prerequisite(s): Undergraduate level CEG 2170 Minimum Grade of D or Undergraduate level ME 1020 Minimum Grade of D&lt;/b&gt;</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>4070</td>
<td>Directed Readings</td>
<td>SOC</td>
<td>1</td>
<td>Readings in areas of specialized interest. Topics vary.</td>
<td>IS</td>
<td></td>
<td>Independent Study</td>
<td></td>
</tr>
<tr>
<td>6990</td>
<td>Microbiology Research</td>
<td>M</td>
<td>2</td>
<td>Supervised thesis research.</td>
<td>GR</td>
<td>LB</td>
<td>Lab</td>
<td></td>
</tr>
<tr>
<td>6110</td>
<td>Positive Psy Cap</td>
<td>PSY</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge within Positive Psychology.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>5200</td>
<td>Advanced Chinese II</td>
<td>CHI</td>
<td>3</td>
<td>Further development of advanced linguistic proficiency and complex conversation skills with emphasis on cultural aspects of communication. Taught in Chinese. &lt;b&gt;Department Managed Prerequisite(s): Undergraduate level CHI 5010 Minimum Grade of D or Undergraduate level CHI 5010 Minimum Grade of D&lt;/b&gt;</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>3280</td>
<td>Social &amp; Radical Econ</td>
<td>EC</td>
<td>3</td>
<td>Examines the economic theories of Karl Marx, including the labor theory of value, capital and surplus value, production under capitalism, the falling rate of profit, capitalist crises and socialism. Marx’s views are contrasted with neoclassical theory and the neo-Keynesian synthesis.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>4710</td>
<td>International Law</td>
<td>PLS</td>
<td>3</td>
<td>Study of rules governing the conduct of international politics with emphasis on their relevance to current world problems.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>5460</td>
<td>Confucianism</td>
<td>REL</td>
<td>3</td>
<td>A survey of Confucianism in Chinese history beginning with various classical expressions of Confucian thought such as: Confucius Analects, Mencius, and Xunzi. Focus on two influential Neo-Confucian thinkers: Zhu Xi and Wang Yangming. Consideration of the modern fate of Confucianism in Chinese society and culture. Important topics include: heaven, human nature and self-cultivation, conceptions of the sage, and Confucian political philosophy.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>3830</td>
<td>Cognitive Neuro Methods</td>
<td>PSY</td>
<td>4</td>
<td>Research methods used in cognitive neuroscience. Hands-on experience with the design of neuroscientific experiments, data collection, data analysis, as well as communication of data through writing. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>6410</td>
<td>Intro to Arabic Fiction</td>
<td>ARA</td>
<td>3</td>
<td>A text-based course introducing students to the history and development of Arabic fiction through the study of classical and modern texts. &lt;b&gt;Department Managed Prerequisite(s): Undergraduate level ARA 3210 Minimum Grade of D or Undergraduate level ARA 5210 Minimum Grade of D&lt;/b&gt;</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>6320</td>
<td>Intmtl Politics Cyber Sec</td>
<td>PLS</td>
<td>3</td>
<td>Examines the power and politics of cyber security, and the international implications of political and legal issues of digital technology on individuals, institutions, and states. Explores cyber security in the context of national and international security, with an emphasis on cyber espionage, cyber influence, and cyber conflict operations.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
<td></td>
</tr>
<tr>
<td>6140</td>
<td>Adv Studies Baroque Art</td>
<td>ART</td>
<td>3</td>
<td>Intensive studies of the period, major movements, and artists of the time. Titles vary.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW7460</td>
<td>7460</td>
<td>Advncd Pcy Advoccy&amp;Soc Jus O A</td>
<td>SW</td>
<td>Social Work</td>
<td>3</td>
<td>Examines social policies, problems, trends, and advocacy for social justice. Analysis of existing policies/services in health, welfare, income maintenance, and equitable society in U.S. and abroad with a focus across the life span.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ART6130</td>
<td>6130</td>
<td>Adv Stud Renaissance Art</td>
<td>ART</td>
<td>Art</td>
<td>3</td>
<td>Intensive studies of the period, major movements, and artists of the time. Titles vary.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS6730</td>
<td>6730</td>
<td>American Foreign Policy</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Investigates the role of the United States in contemporary international politics and the relationship of the domestic political system to that role. Discussion of current policy and events included.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HED7700</td>
<td>7700</td>
<td>Social Behavior Health</td>
<td>HED</td>
<td>Health Education</td>
<td>3</td>
<td>This course addresses the social-ecological and behavioral determinants of health status and the role of theory-based interventions in alerting health behavior and status.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH4350</td>
<td>4350</td>
<td>Portfolio Preparation</td>
<td>TH</td>
<td>Theatre</td>
<td>3</td>
<td>Prepares upper-division students for the professional world. Portfolio formats, both traditional and digital. Effective techniques for the presentation of portfolios and employment strategies.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CTE4250</td>
<td>4250</td>
<td>Curriculum &amp; Assessment</td>
<td>CTE</td>
<td>Career and Technical Education</td>
<td>3</td>
<td>Investigates ways in which schools approach curriculum, assessment and continuous improvement. Includes alignment of standards with curriculum, instruction and assessments, increased attention to student learning and increased faculty collaboration.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATR7500</td>
<td>7500</td>
<td>Med Conditions &amp; Interventions</td>
<td>ATR</td>
<td>Athletic Training</td>
<td>5</td>
<td>Etiology, pathology, and clinical manifestations of common illnesses, infectious diseases, and dermatological conditions seen in the physically active population across the lifespan and their respective pharmacological interventions.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1620A</td>
<td>1620A</td>
<td>Stretch &amp; TonePilates</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Stretch &amp; TonePilates. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHL5090</td>
<td>5090</td>
<td>Existentialism</td>
<td>PHL</td>
<td>Philosophy</td>
<td>3</td>
<td>Introduction to 20th century philosophical and literary movement which, rooted in traditional questions of freedom and moral responsibility, breaks dramatically with the past in its emphasis on concrete existence and the passions over abstract rationality, its conception of self as a product of radically free acts of self-creation, its affirmation of uncertainty and absurdity as inescapable elements of the human condition, and its rejection of traditional ethical systems.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS4710</td>
<td>4710</td>
<td>Introductory Data Mining</td>
<td>CS</td>
<td>Computer Science</td>
<td>3</td>
<td>Introduction to the fundamentals of data mining. Emphasis is on data preparation/evaluation/exploration, association rules, classification, clustering, OLAP/OLAM, pattern/model evaluation, anomaly detection. Students will develop and use data mining software.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>DAN1240</td>
<td>1240</td>
<td>Jazz for the Actor I</td>
<td>DAN</td>
<td>Dance</td>
<td>1</td>
<td>Designed to teach fundamental jazz dance technique to the non-dance major and to develop potential in creative movement, increase musical awareness, and improve professional audition skills for all theatre-related activities.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME3320</td>
<td>3320</td>
<td>Thermodynamcis II</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>This course will apply the 0th, 1st, 2nd, and 3rd laws of thermodynamics, as well as conservation of mass, to a range of classical thermodynamic systems and phenomena. These include power and refrigeration cycles, gas mixtures, ideal vapor-gas mixtures, air conditioning, combustion, and chemical equilibrium. &amp; Department Managed Prerequisite(s): (Undergraduate level ME 1020 Minimum Grade of C and Undergraduate level ME 3310 Minimum Grade of C)</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHY3460</td>
<td>3460</td>
<td>Concepts App Physics II</td>
<td>PHY</td>
<td>Physics</td>
<td>4</td>
<td>Basic concepts and applications in physics including electricity, magnetism, optics, waves, simple machines. Inquiry learning environment emphasizing science process and mathematical reasoning, problem-solving, technology and societal connections.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUS3110</td>
<td>3110</td>
<td>History of Music I</td>
<td>MUS</td>
<td>Music</td>
<td>3</td>
<td>History of western art music from ancient Greece to 1750. Integrated Writing course.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EED3230</td>
<td>3230</td>
<td>Field Experience P-5</td>
<td>EED</td>
<td>Elementary Education P-5</td>
<td>1</td>
<td>Candidates, mentored by an elementary educator, assist in the planning, organizing, delivering, and assessing of instruction in a P-5 grade setting applying pedagogical content knowledge from elementary education methods courses.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PTX8006</td>
<td>8006</td>
<td>Case Study Chem Defense</td>
<td>PTX</td>
<td>Pharmacology/Toxicity</td>
<td>3</td>
<td>This course will provide an opportunity for students to review historical chemical and biological scenarios to evaluate means, methods, motivation and effects of such uses.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW2720</td>
<td>2720</td>
<td>Multicultural Competence</td>
<td>SW</td>
<td>Social Work</td>
<td>3</td>
<td>An introduction to the methods of inquiry in the social sciences used to develop the knowledge and skills required to work and relate in a multicultural world. Content covers the historical development of discrimination in the U.S. and the need for multicultural competency to be an engaged and informed citizen in a democratic society. Integrated Writing course.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CNL6700</td>
<td>6700</td>
<td>Counseling Workshop</td>
<td>CNL</td>
<td>Counseling</td>
<td>0.5</td>
<td>Intensive study of selected areas in counseling to meet the particular needs of participating students, schools, and agencies. Titles vary.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME4210L</td>
<td>4210L</td>
<td>Mechanical Vibration Lab</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>0</td>
<td>Required laboratory for ME 4210.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MLB4311</td>
<td>4311</td>
<td>Basic Hematology Science</td>
<td>MLB</td>
<td>Medical Laboratory Science</td>
<td>1</td>
<td>Application of principles of hematology, including hemopoiesis, counting and identification of cells in the peripheral blood, and the use of cellular morphology to diagnose disease. This course has a fee that is non-refundable once the term begins.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SAA6660</td>
<td>6660</td>
<td>Helping Skills for SAHE</td>
<td>SAA</td>
<td>Student Affairs in Higher Ed</td>
<td>3</td>
<td>Designed to help apply various psychological theories, models and counseling techniques to enhance helping relationships formed in student affairs work.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BMS9980</td>
<td>9980</td>
<td>Laboratory Rotation III</td>
<td>BMS</td>
<td>Biomedical Sciences</td>
<td>1</td>
<td>Independent study designed to develop proficiency in technology, instrumentation, research design, and data analysis in an area of concentration (advanced curriculum) different from a student's area of specialization.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ART2320</td>
<td>2320</td>
<td>Sculpture for Non-Majors</td>
<td>ART</td>
<td>Art</td>
<td>3</td>
<td>Introduction to the fundamental approaches and concepts of sculpture through direct engagement with materials and processes of the discipline, including mold-making, casting, construction, and welding.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ABS7600</td>
<td>7600</td>
<td>Graduate Seminar in ABS</td>
<td>ABS</td>
<td>Applied Behavioral Science</td>
<td>1</td>
<td>In-depth coverage of special topics in applied behavioral science. Topics vary. 1-2 credit hours.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MTH990</td>
<td>990</td>
<td>Graduate Research</td>
<td>MTH</td>
<td>Mathematics</td>
<td>1</td>
<td>Research on a selected topic in mathematics.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHL3130</td>
<td>3130</td>
<td>Metaphysics</td>
<td>PHL</td>
<td>Philosophy</td>
<td>3</td>
<td>Examines such topics as the problem of universals, free will and determinism, the nature of abstract entities like numbers, the problem of identity and individuation, the nature of time and cause and effect, and the realism and anti-realism debate. Integrated Writing course.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME3211</td>
<td>3211</td>
<td>Human Biomechanics</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>4</td>
<td>Biostatic considerations, human systems and mechanics.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE5010L</td>
<td>5010L</td>
<td>Circuit Analysis I Lab</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>1</td>
<td>To assist students with learning to apply Kirchhoff's laws, to have an understanding of and an ability to apply Thévenin and Norton's theorems, to analyze and design circuits, to analyze 1st and 2nd order circuits, to apply linear differential equation techniques, and to have an understanding of sinusoidal steady state analysis.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GER1010</td>
<td>1010</td>
<td>Beginning German I</td>
<td>GER</td>
<td>German</td>
<td>3</td>
<td>Communicative introduction to German structures and vocabulary and to Germanic culture. Practice in speaking, listening, reading and writing.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG6180</td>
<td>6180</td>
<td>Obj-Orient Prog &amp; Design</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>3</td>
<td>Topics emphasize the core concepts of encapsulation, inheritance, polymorphism, and dynamic binding. Additional topics include class organization, software maintenance, and design of reusable components.&lt;b&gt; Department Managed Prerequisite(s): Undergraduate level CEG 4110 Minimum Grade of D or Graduate level CEG 6110 Minimum Grade of D&lt;b&gt;</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>AES2200</td>
<td>2220</td>
<td>FTP Leadership Lab</td>
<td>AES</td>
<td>Aerospace Studies</td>
<td>0</td>
<td>Preparation for Field Training summer program. Training is cadet-led. Requires participation in two weekly physical training sessions.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSI8430</td>
<td>8430</td>
<td>Behav. &amp; Cognitive Ther.</td>
<td>PSI</td>
<td>Professional Psychology</td>
<td>3</td>
<td>Provides students with the theoretical background, current research, and clinical applications of behavioral and cognitive therapies.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS2210</td>
<td>2210</td>
<td>Logic for Comp Scientist</td>
<td>CS</td>
<td>Computer Science</td>
<td>3</td>
<td>Fundamental material in foundations of logic most relevant to Computer Science. Propositional logic, predicate logic, modeling of knowledge, and algorithms for logical reasoning.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EC4100</td>
<td>4100</td>
<td>Math Models for Econ</td>
<td>EC</td>
<td>Economics</td>
<td>3</td>
<td>Application of mathematical tools in the formulation of economic theory.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SOC6820</td>
<td>6820</td>
<td>Social Gerontology</td>
<td>SOC</td>
<td>Sociology</td>
<td>3</td>
<td>Provides students with an understanding of social gerontology, its origins, and present domains of focus. A life course perspective that incorporates cultural, economic, historical and structural contexts provides the framework for examining aging-related issues, particularly with regard to the impact on quality of life for older adults.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO6600</td>
<td>6600</td>
<td>Population Genetics</td>
<td>BIO</td>
<td>Biology</td>
<td>4</td>
<td>Examination of the causes of genetic differences within and among species and how molecular biology techniques can be used to identify these differences. Emphasized human genetics, anthropology, ecology and conservation implications.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>RHB7310</td>
<td>7310</td>
<td>Treatment of Addictions</td>
<td>RHB</td>
<td>Rehabilitation</td>
<td>12</td>
<td>Theory and practice of a variety of treatment modalities and settings. Explores interdisciplinary treatment planning, evidence based practices, family, individual and group interventions, systems, holistic intervention strategies, recovery supports including self-help groups.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>STT7670</td>
<td>7670</td>
<td>Appl Regression Analyses</td>
<td>STT</td>
<td>Statistics</td>
<td>3</td>
<td>Multiple linear regression with introduction to more complicated models, including nonlinear models and weighted least squares. Up-to-date computing techniques including nonparametric regression techniques.&lt;b&gt; Department Managed Prerequisite(s): Graduate level STT 6660 Minimum Grade of D&lt;b&gt;</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>STT6670</td>
<td>6670</td>
<td>Statistical Methods II</td>
<td>STT</td>
<td>Statistics</td>
<td>4</td>
<td>Randomization and replication. One and two-way analysis of variance, multiple comparisons, analysis of covariance. Multi-factor experiments. Block designs. Mixed- and random-effects models, including repeated measures. Nested factors; split-plot designs; confounding and fractions for 2k factorial experiments.&lt;b&gt; Department Managed Prerequisite(s): Graduate level STT 6660 Minimum Grade of D&lt;b&gt;</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES1050</td>
<td>1050</td>
<td>Dynamic Earth</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>4</td>
<td>Processes that have shaped the earth from its origin until the present. Origin and evolution of life. Focuses on understanding the nature of science by examining earth materials (minerals, rocks, fossils) and features (represented by geologic and topographic maps) and what these reveal about the past and present.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME4850</td>
<td>4850</td>
<td>Six Sigma for Engineers</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>3</td>
<td>Introduction to the practical application of Six Sigma tools in production and service contexts. Includes videos and case studies of real world applications. Six Sigma Green Belt Certificate awarded to students upon successful completion of course and in-class project.</td>
<td>UG</td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Description</td>
<td>Department</td>
<td>Type</td>
<td>Status</td>
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<tr>
<td>MUS3120</td>
<td>3</td>
<td>History of Music II</td>
<td>History of western art music from 1750 to the present. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>PHY1110</td>
<td>4</td>
<td>Principles of Physics I</td>
<td>Fundamental physics of mechanics. Topics include laws of motion, work and energy, momentum, circular and rotational motion, gravity, fluids, mechanical waves and thermodynamics. Department Managed Prerequisite(s): Undergraduate level MTH 1280 Minimum Grade of D or WSU Math Placement Level 40&lt;br&gt;U.S.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>HST1200</td>
<td>3</td>
<td>West &amp; World since 1500</td>
<td>Examination of the modern Western world emphasizing the revolutions in economics, politics, religion and other phenomena that have shaped the Western world in our own time.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>PLS4100</td>
<td>3</td>
<td>Political Psychology</td>
<td>Introduction to political psychology, emphasizing its application to international politics. Surveys dominant psychological theories, approaches and works, as well as applications of psychological perspectives to foreign policy and world politics. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>FAS2000</td>
<td>3</td>
<td>Intro to Food Science</td>
<td>Overview of the food processing industry and basic concepts in food processing operations such as food components, chemistry and functionality, nutrition and quality.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>ARA3980</td>
<td>1</td>
<td>Studies in Arabic</td>
<td>Individual research project approved and supervised by a full-time faculty member. Taught in Arabic. Department Managed Prerequisite(s): Undergraduate level ARA 3110 Minimum Grade of D or Undergraduate level ARA 3120 Minimum Grade of D or Undergraduate level ARA 3210 Minimum Grade of D or Undergraduate level ARA 3220 Minimum Grade of D&lt;br&gt;U.S.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>BME6350</td>
<td>3</td>
<td>Comp Neuron Eng &amp; Hith App</td>
<td>Principles and application of computational methods and technologies to neuroergonomics and neuroengineering, including applications to healthcare; analysis of applications related to brain-system interface and augmented sensory perception; articulation of various methods of non-invasive neuroscience measurements. Department Managed Prerequisite(s): Graduate level IHE 6320 Minimum Grade of C&lt;br&gt;U.S.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>BIO1120</td>
<td>1</td>
<td>Cells and Genes</td>
<td>Introduction to basic concepts of biology. Topics include genetics and the molecular and cellular basis for the unity of life. Department Managed Prerequisite(s): Undergraduate level DEV 0280 Minimum Grade of P&lt;br&gt;U.S.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>ATH6100</td>
<td>3</td>
<td>Spec Topics-Cultural ATH</td>
<td>Intensive study of selected topics in graduate-level cultural anthropology. Topics vary.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>TH3730</td>
<td>3</td>
<td>MT History/Lit II</td>
<td>Covers history of the Musical Theatre beginning with the Golden Age of the Musical in the mid-Twentieth century through the birth of the Rock Musical to the present state of the art form. Reading, viewing and discussing significant examples from major periods while studying historical, artistic and social contexts for these works. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>OIS2150</td>
<td>2.5</td>
<td>Job Search/Port Dev</td>
<td>Job hunting skills, resume writing, interviewing techniques, and effective employment seeking skills.</td>
<td>UG</td>
<td>LL</td>
<td>Lecture/Lab Combinatio</td>
<td></td>
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<tr>
<td>KNH1460B</td>
<td>1</td>
<td>Rape Def Strat: Intermed</td>
<td>Intermediate level of skills and knowledge in Rape Defense Strategies: Intermediate. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
<td></td>
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</tr>
<tr>
<td>CEG8920</td>
<td>3</td>
<td>Intro Study in CEG</td>
<td>Independent study in computer engineering.</td>
<td>GR</td>
<td>IS</td>
<td>Independent Study</td>
<td></td>
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</tr>
<tr>
<td>ENG6760</td>
<td>3</td>
<td>English</td>
<td>Investigates key concepts and underlying theories in the field of language assessment. Looks at purposes and types of assessment with a focus on the development and use of authentic assessment for English language learners.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>MUS4140</td>
<td>4</td>
<td>Intro to Research in Music</td>
<td>Methods of scholarly investigation in music history, theory, and education: music bibliography; emphasis on individual projects and reports.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>PLS4630</td>
<td>3</td>
<td>International Conflict</td>
<td>Relationship of power, alliances, arms races, etc. to the initiation, prosecution, and aftermath of interstate war. Effects of an increasingly globalized world on war. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
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</tr>
<tr>
<td>REL3420</td>
<td>3</td>
<td>Japanese Religions</td>
<td>Survey of historical and contemporary religious life in Japan. Primary focus will be on both early Shinto and later nationalistic Shinto, the varieties of Japanese Buddhism, and Japanese New religions. Topics examined include religious doctrine, faith and devotion, self-cultivation and enlightenment, monasticism, and religion and the state.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>LRS1000</td>
<td>1</td>
<td>Special Topics</td>
<td>Life and recreational skills course at the Lake Campus. Topic varies by term and instructor.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
<td></td>
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</tr>
<tr>
<td>LEP0350</td>
<td>0.5</td>
<td>List &amp; Speak - Level 3</td>
<td>Listening, speaking and pronunciation for high-intermediate ESL students. This course has a fee that is non-refundable once the term begins.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>KNH1670</td>
<td>1</td>
<td>Swimming: Intermediate</td>
<td>Intermediate level of skills and knowledge in Swimming: Intermediate. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
<td></td>
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</tr>
<tr>
<td>SOC4091</td>
<td>1</td>
<td>Studies in Selected Subj</td>
<td>Problems, approaches, and topics in the field of sociology. Topics vary. Credits will not be awarded for repetition of course with identical topic titles. Integrated Writing course. Department Managed Prerequisite(s): Undergraduate level SOC 2000 Minimum Grade of D or Undergraduate level SOC 2200 Minimum Grade of D&lt;br&gt;U.S.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Department</td>
<td>Prerequisites</td>
<td>Type</td>
<td>Notes</td>
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<tr>
<td>BIO3120L</td>
<td>3</td>
<td>General Microbiology</td>
<td>BIO Biology</td>
<td>Required laboratory for BIO 3120.</td>
<td>Lab</td>
<td></td>
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</tr>
<tr>
<td>SPN3420</td>
<td>4</td>
<td>Seminar in Spanish-American Literature</td>
<td>SPN Spanish</td>
<td>Topics vary. Department Managed Prerequisite(s): (Undergraduate level SPN 3210 Minimum Grade of D or Undergraduate level SPN 3250 Minimum Grade of D) and (Undergraduate level SPN 3310 Minimum Grade of D or Undergraduate level SPN 3320 Minimum Grade of D).</td>
<td>UG</td>
<td>Seminar, Lecture/Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUR7354</td>
<td>3</td>
<td>Clinical Education of NUR</td>
<td>NUR Nursing</td>
<td>Examination and application of the art, principles, theories, models, and strategies of evaluation in nursing education. Role of nurse educator in classroom and clinical is explored.</td>
<td>GR</td>
<td>Lecture, Lab</td>
<td></td>
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</tr>
<tr>
<td>PLS640</td>
<td>6</td>
<td>Political Leadership Theories</td>
<td>PLS Political Science</td>
<td>Study of political attitude development and acquisition of basic political orientations and values, beginning with childhood and proceeding through adolescence and adulthood. Investigation of the role of various socializing agents.</td>
<td>GR</td>
<td>Lecture, Lab</td>
<td></td>
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</tr>
<tr>
<td>DOS9015</td>
<td>9</td>
<td>Doctor Org Studies</td>
<td>DOS Doctor Org Studies</td>
<td>Focus on historical and contemporary leadership models and theories, and current developments that affect leaders today. Strengths, weaknesses, and methodological contributions will be analyzed to provide foundational knowledge for continuous study of leadership.</td>
<td>GR</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>GER4420</td>
<td>4</td>
<td>German Language</td>
<td>GER German</td>
<td>History of the German language from the age of migration to the present. Linguistic and social history of the German language and Swiss and Austrian variations. Department Managed Prerequisite(s): Undergraduate level GER 3110 Minimum Grade of D and (Undergraduate level GER 3210 Minimum Grade of D or Undergraduate level GER 3250 Minimum Grade of D).</td>
<td>UG</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>HST4860</td>
<td>4</td>
<td>History and New Media</td>
<td>HST History</td>
<td>Examines the impact of new media on access to primary sources, public programs, history education, scholarship, and the ways in which historians engage with each other. Presents productions in a variety of media. Integrated Writing course.</td>
<td>UG</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>ENG7520</td>
<td>7</td>
<td>TESOL: Read/Write</td>
<td>ENG English</td>
<td>Reading, research, reports, and discussion on topics dealing with TESOL reading and writing. Emphasis placed on examining the relationships between language and writing theory and practices in TESOL reading and writing. Department Managed Prerequisite(s): (Graduate level ENG 7030 Minimum Grade of C or Graduate level ENG 7020 Minimum Grade of C or Graduate level ENG 7010 Minimum Grade of C or Graduate level HUM 7000 Minimum Grade of C) and (Undergraduate level ENG 4710 Minimum Grade of C or Graduate level ENG 6710 Minimum Grade of C).</td>
<td>GR</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>ENG7210</td>
<td>7</td>
<td>Teaching College Comp II</td>
<td>ENG English</td>
<td>Introduction to the theory and pedagogy of research writing and argumentation and the teaching of ENG 2100. Requires concurrent teaching or tutorial experience. Department Managed Prerequisite(s): Graduate level ENG 7200 Minimum Grade of B.</td>
<td>GR</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>ENG7430</td>
<td>7</td>
<td>Seminar: Comp. Theories</td>
<td>ENG English</td>
<td>Reading, research and discussion of current theories in the field of composition and rhetoric focusing on topics such as composition studies, literacy studies, social nature of language, and politics of assessment.</td>
<td>GR</td>
<td>Lecture, Lab</td>
<td></td>
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</tr>
<tr>
<td>ART4680</td>
<td>4</td>
<td>Adv Printmg: Lithograph</td>
<td>ART Art</td>
<td>Development of personalized concepts and individual aesthetic expression in printmaking. This course has a fee that is non-refundable once the term begins. Department Managed Prerequisite(s): Undergraduate level ART 3680 Minimum Grade of D.</td>
<td>UG</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>ANT7210</td>
<td>7</td>
<td>Human Microanatomy</td>
<td>ANT Anatomy</td>
<td>Detailed microanatomy of human cells, tissues, and organ systems.</td>
<td>GR</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>OL3990</td>
<td>3</td>
<td>Special Topics in OL</td>
<td>OL Organizational Leadership</td>
<td>Seminar in special topics such as women in leadership, leadership in the public sector, or non-profit leadership. Topics vary.</td>
<td>UG</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>ECO5140</td>
<td>5</td>
<td>Evry Consmer Know</td>
<td>ECO Center for Economic Educ.</td>
<td>The course explores consumer economic topics while assisting K-12 teachers with methods to introduce and teach them to students. This course has a fee that is non-refundable once the term begins.</td>
<td>GR</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>PSY7020</td>
<td>7</td>
<td>Dgn Psychology</td>
<td>PSY Psychology</td>
<td>Continuation of PSY 7010. Department Managed Prerequisite(s): Graduate level PSY 7010 Minimum Grade of D.</td>
<td>GR</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>ART5010</td>
<td>5</td>
<td>Independ Study in Art</td>
<td>ART Art</td>
<td>Special studies for qualified students. Intensive individually directed work in art with faculty consultation and supervision.</td>
<td>GR</td>
<td>Independent Study</td>
<td></td>
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</tr>
<tr>
<td>KNH1770B</td>
<td>17</td>
<td>Water Safety Instruction</td>
<td>KNH Kinesiology &amp; Health</td>
<td>National American Red Cross standards training for teaching American Red Cross Swimming and Diving and Water Safety courses.</td>
<td>UG</td>
<td>Lecture, Lab</td>
<td></td>
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</tr>
<tr>
<td>PHL5900</td>
<td>5</td>
<td>Topics in Phil of Relig</td>
<td>PHL Philosophy</td>
<td>Examination of selected topics related to the philosophy of religion.</td>
<td>GR</td>
<td>Lecture, Lab</td>
<td></td>
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<tr>
<td>DOS9980</td>
<td>9</td>
<td>Qualify Prep Org Studies Doc</td>
<td>DOS Doctor Org Studies</td>
<td>Independent research and writing related to Qualifying Process for Doctoral Program in Organizational Studies.</td>
<td>GR</td>
<td>Independent Study</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>Code</td>
<td>Credits</td>
<td>Title</td>
<td>Department</td>
<td>Grading</td>
<td>Type</td>
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<td>EE7150</td>
<td>7150</td>
<td>3</td>
<td>Digital Image Processing</td>
<td>EE</td>
<td>GR</td>
<td>Electrical</td>
<td></td>
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<tr>
<td>CEG7580</td>
<td>7580</td>
<td>3</td>
<td>Digital Image Processing</td>
<td>CEG</td>
<td>GR</td>
<td>Engineering</td>
<td></td>
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<tr>
<td>ART5110</td>
<td>5110</td>
<td>3</td>
<td>Study of Ancient/Classical Music</td>
<td>ART</td>
<td>GR</td>
<td>Art</td>
<td></td>
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<tr>
<td>MUS3250</td>
<td>3250</td>
<td>2</td>
<td>Choral Conducting</td>
<td>MUS</td>
<td>UG</td>
<td>Choral</td>
<td></td>
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<tr>
<td>PTX9000</td>
<td>9000</td>
<td>3</td>
<td>Intro to Research</td>
<td>PTX</td>
<td>GR</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>CNL7800L</td>
<td>7800</td>
<td>0</td>
<td>Sys Tech in Man &amp; Fam Lab</td>
<td>CNL</td>
<td>GR</td>
<td>Lab</td>
<td></td>
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<tr>
<td>ANT6040</td>
<td>6040</td>
<td>2</td>
<td>Biomedical Experimental Design</td>
<td>ANT</td>
<td>GR</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>EDL7711</td>
<td>7711</td>
<td>3</td>
<td>Lit &amp; Schol Imprvmt STEM</td>
<td>EDL</td>
<td>GR</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>EDL7510</td>
<td>7510</td>
<td>3</td>
<td>Statistics and Research</td>
<td>EDL</td>
<td>GR</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>HST3100</td>
<td>3100</td>
<td>3</td>
<td>Survey European History</td>
<td>HST</td>
<td>GR</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>PTX7001</td>
<td>7001</td>
<td>3</td>
<td>Cellular Pharm &amp; Toxicology</td>
<td>PTX</td>
<td>GR</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>MUS1140</td>
<td>1140</td>
<td>3</td>
<td>Fund of Musicianship I</td>
<td>MUS</td>
<td>GR</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>PSI9510</td>
<td>9510</td>
<td>3</td>
<td>Dev. Behavioral Peds I</td>
<td>PSI</td>
<td>GR</td>
<td>Lecture</td>
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<tr>
<td>PLS4400</td>
<td>4400</td>
<td>3</td>
<td>Constitutional Law</td>
<td>PLS</td>
<td>GR</td>
<td>Lecture</td>
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<tr>
<td>PSY7900</td>
<td>7900</td>
<td>1</td>
<td>Independent Research</td>
<td>PSY</td>
<td>GR</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>REL3540</td>
<td>3540</td>
<td>3</td>
<td>Asian Religions Ecology</td>
<td>REL</td>
<td>UG</td>
<td>Lecture</td>
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<tr>
<td>ME4260L</td>
<td>4260</td>
<td>1</td>
<td>Intro Robotics Lab</td>
<td>ME</td>
<td>UG</td>
<td>Lab</td>
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<tr>
<td>PTX9100</td>
<td>9100</td>
<td>1</td>
<td>Pharmacology Grad Resaen</td>
<td>PTX</td>
<td>GR</td>
<td>Lab</td>
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<tr>
<td>URS7070</td>
<td>7070</td>
<td>3</td>
<td>MPA Capstone Project</td>
<td>URS</td>
<td>GR</td>
<td>Lecture</td>
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<tr>
<td>MLB4010</td>
<td>4010</td>
<td>0.5</td>
<td>Topics in Med Lab Sci</td>
<td>MLB</td>
<td>UG</td>
<td>Lab</td>
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<tr>
<td>URS4320</td>
<td>4320</td>
<td>3</td>
<td>Managing Volunteer Org</td>
<td>URS</td>
<td>UG</td>
<td>Lecture</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Description</td>
<td>Pre-Requisites</td>
<td>Offerings</td>
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<tr>
<td>ME6520</td>
<td>Hydropower</td>
<td>3</td>
<td>Topics covered are hydraulics of turbomachines for power generation, hydrologic analysis for hydropower development for run-of-the-river systems and reservoir systems, dams and environmental impacts, environmental impact assessment, operations of reservoir systems, and economics of hydropower generation.</td>
<td>Department Managed Prerequisite(s): Undergraduate level ME 3350 Minimum Grade of C or Undergraduate level ME 5350 Minimum Grade of C</td>
<td>Fall 2022</td>
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<tr>
<td>HST4500</td>
<td>Latin American History</td>
<td>4</td>
<td>Examines selected Latin American nations and regions (e.g., Mexico, Argentina) and particular topics (e.g., Authoritarianism) in detail. Topics vary. Integrated Writing course.</td>
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<td>Fall 2022</td>
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<tr>
<td>ENG4700</td>
<td>TEFL Theory and Culture</td>
<td>3</td>
<td>Builds awareness of cultural similarities and differences and addresses the impact of cultural and personal variables on English language learning in an international setting. Provides an understanding of the language acquisition process.</td>
<td>Department Managed Prerequisite(s): Undergraduate level ENG 4710 Minimum Grade of D (ENG 4710 can be taken concurrently)</td>
<td>Fall 2022</td>
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<tr>
<td>CHM7460</td>
<td>Elements of Org Reaction</td>
<td>2</td>
<td>Discussion of the more important organic reactions including their scope, limitations, and mechanisms.</td>
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<td>Fall 2022</td>
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<tr>
<td>MUS6800</td>
<td>Workshops in Music</td>
<td>1</td>
<td>Selected topics or problems in music, or special areas of music teaching. Titles vary.</td>
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<td>Fall 2022</td>
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<tr>
<td>BMS7080</td>
<td>Digital Signal Process</td>
<td>3</td>
<td>Introduces principles and applications of digital signal processing (DSP) from the design and implementation perspective. Introduction to advanced digital signal processing design concepts. Focus on time and frequency domain algorithms. Methods include multirate signal processing, filter banks, time-frequency analysis, and wavelets.</td>
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<td>Fall 2022</td>
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<tr>
<td>ME7060</td>
<td>Structural Reliability</td>
<td>3</td>
<td>Analyze the uncertainties associated with mechanical and structural design. Methods to model various uncertainties in a design using probabilistic analysis tools. Computation of safety index and structural reliability using efficient techniques for implicit functions.</td>
<td>Department Managed Prerequisite(s): Graduate level ME 7100 Minimum Grade of D and Graduate level ME 6120 Minimum Grade of D</td>
<td>Fall 2022</td>
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<tr>
<td>ATH3320</td>
<td>Human Variation and Adpt</td>
<td>3</td>
<td>An exploration of biological variation in contemporary human populations and an examination of the genetic, physical, and cultural foundations of human biological diversity. Reviews selected population adaptations to specific environmental conditions. Emphasis on the interaction of biology and culture in human variation and adaptation. Considers the link between human variation science and U.S. society and culture.</td>
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<td>Fall 2022</td>
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<tr>
<td>CHM4020</td>
<td>Environmental Chemistry</td>
<td>3</td>
<td>Environmental sampling and analysis using instrumental techniques. Chemical fate prediction by measurement and examination of physical and chemical properties.</td>
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<td>Fall 2022</td>
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<tr>
<td>MBA7800</td>
<td>Supply Chain Mgmt</td>
<td>3</td>
<td>Explores the fundamentals of supply chain management, including the strategic role of the supply chain, key drivers of supply chain performance, and analytical tools and techniques for supply chain analysis. Cases and in-class exercises.</td>
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<td>Fall 2022</td>
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<tr>
<td>EGR4980L</td>
<td>Special Topics in EGR Lab</td>
<td>0</td>
<td>Required laboratory for EGR 4980.</td>
<td></td>
<td>Fall 2022</td>
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<tr>
<td>FR6030</td>
<td>Adv Studies: Lang Civil</td>
<td>3</td>
<td>Course content will vary. Topic chosen by instructor. Conducted in French. Department Managed Prerequisite(s): Graduate level FR 5110 Minimum Grade of C or Graduate level FR 5120 Minimum Grade of C or Graduate level FR 5210 Minimum Grade of C or Graduate level FR 5220 Minimum Grade of C</td>
<td></td>
<td>Fall 2022</td>
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<tr>
<td>SPN2500</td>
<td>Int Span II Study Abroad</td>
<td>3</td>
<td>Intensive course on the culture of Puerto Rico in which the classroom has no walls. On-site lectures will be given throughout the two-week program on the island. The main objective of this course is to transport students to another culture so that intellectual learning is replaced with a visual and authentic understanding of the people, places, ideas, art, and events that transformed Puerto Rico and impacted the world on a cultural, social and historical level.</td>
<td>Department Managed Prerequisite(s): Undergraduate level SPN 2010 Minimum Grade of D</td>
<td>Fall 2022</td>
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<tr>
<td>NEU3400</td>
<td>Adv Neuro Tech Micro</td>
<td>4</td>
<td>How microscopes work. Techniques and skills necessary for preparing tissue for imaging. Optimizing images for visualization and quantification. Integrated Writing course.</td>
<td></td>
<td>Fall 2022</td>
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<tr>
<td>EC7100</td>
<td>Math Methods for Econ</td>
<td>3</td>
<td>This course will introduce students to the major mathematical methods that are used to represent economic theories in modern economics, and how these methods are used to analyze problems posed in economics.</td>
<td>Department Managed Prerequisite(s): Graduate level EC 5090 Minimum Grade of D and Graduate level EC 5100 Minimum Grade of D</td>
<td>Fall 2022</td>
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<tr>
<td>ED6450</td>
<td>AYA Intern Pr I Mth M</td>
<td>1</td>
<td>Candidates, mentored by a mathematics educator, shall assist in the planning, organizing, delivering, and assessing of instruction in a 7-12th grade setting applying pedagogical content knowledge from mathematics content and methods courses.</td>
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<td>Fall 2022</td>
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<tr>
<td>LEP0150</td>
<td>List &amp; Speak - Level 1</td>
<td>0</td>
<td>Listening, speaking and pronunciation for beginning level ESL students. This course has a fee that is non-refundable once the term begins.</td>
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<td>Fall 2022</td>
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<tr>
<td>PSY8290</td>
<td>Learning w/ Disabilities</td>
<td>3</td>
<td>This course will introduce students to the major perspectives and cross-disciplinary theories in the area of human learning, to provide a foundation for the consideration of physical activities in this process. Upon completion of this course, students will be able to analyze learning activities for their joint cognitive, physical and social components, thereby extending contemporary theories of learning to the unique demands of learning with disabilities.</td>
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<td>Fall 2022</td>
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<tr>
<td>Course Code</td>
<td>Title</td>
<td>Credits</td>
<td>Format</td>
<td>Description</td>
<td>Department Managed Prerequisite(s)</td>
<td>Notes</td>
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<tr>
<td>EES6240</td>
<td>Oceanography</td>
<td>6</td>
<td>Lecture</td>
<td>Introduction to the interrelated, geology, physics, chemistry, and biology of the ocean.</td>
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<tr>
<td>PSI9430</td>
<td>Psychodynnamic Psychother</td>
<td>9</td>
<td>Lecture</td>
<td>Presents contemporary psychodynamic theory and practice.</td>
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<tr>
<td>DAN2310</td>
<td>Intermediate Jazz II</td>
<td>2</td>
<td>Lecture</td>
<td>Second-year intermediate jazz dance technique. Focus on technical diversity, musicality, artistry, and performance and on increasing body strength, flexibility, and kinesthetic awareness.</td>
<td>UG ST Studio</td>
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<tr>
<td>NUR7611</td>
<td>Psych MH NP Prac I</td>
<td>7</td>
<td>Lecture</td>
<td>The focus is on comprehensive symptom assessment and diagnostic reasoning in the management of individuals and families with acute and chronic alterations in psychiatric/mental health status across the lifespan. Health promotion, health behaviors, and disease prevention strategies are emphasized with respect to epidemiology, risks, and growth and development. Therapeutic communication, ethics, and cultural competency are emphasized. Advanced practice role development is incorporated.</td>
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<tr>
<td>FAS2030</td>
<td>Intro Animal Science</td>
<td>2</td>
<td>Lecture/Lab</td>
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<tr>
<td>CHI5120</td>
<td>Adv Chinese Conversation</td>
<td>5</td>
<td>Lecture</td>
<td>A continuation of Chinese 3110/5110 pursuing a balance of the four basic language skills: reading, writing, listening, and speaking in Chinese with a focus on conversation.</td>
<td>Department Managed Prerequisite(s): Undergraduate level CHI 3110 Minimum Grade of D or Graduate level CHI 5110 Minimum Grade of D or Undergraduate level CHI 5110 Minimum Grade of D</td>
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<tr>
<td>ME7080</td>
<td>Multidisc Strctri Opnm</td>
<td>7</td>
<td>Lecture</td>
<td>Structural optimization of large scale systems with constraint approximations, sensitivity analysis, and design variable linking methods. Primal, dual, and optimality criteria methods for shape and size optimization, 3 hour lecture.</td>
<td>Department Managed Prerequisite(s): Graduate level ME 6080 Minimum Grade of D and Graduate level ME 6120 Minimum Grade of D and Graduate level ME 7100 Minimum Grade of D</td>
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<tr>
<td>PL5430</td>
<td>Civil Liberties II</td>
<td>5</td>
<td>Lecture/Lab Combinatio</td>
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<tr>
<td>HST7815</td>
<td>Records and Info Management</td>
<td>7</td>
<td>Lecture</td>
<td>Examines traditional and emerging concepts, practices, and methodologies related to the management of records and information in a variety of institutional settings.</td>
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<tr>
<td>PHL5150</td>
<td>Philosophy of Language</td>
<td>5</td>
<td>Lecture</td>
<td>A study of major issues such as sense and reference, theories of meaning and truth, language games, nature of grammar and syntax, language and thought.</td>
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<tr>
<td>HST6210</td>
<td>British History</td>
<td>6</td>
<td>Lecture</td>
<td>Examines particular periods of British history (e.g., modern Britain) or topics (e.g., British constitutional history). Topics vary.</td>
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<tr>
<td>ME6840</td>
<td>Mat Set for Mech Design</td>
<td>6</td>
<td>Lecture</td>
<td>Principles of materials-limited design. Lectures, case histories, open-ended assignments and computer based materials selection tools. Procedures for selection of optimum material(s) under constraints resulting from functional, reliability, safety, cost and environmental issues.</td>
<td>Department Managed Prerequisite(s): (Undergraduate level ME 2700 Minimum Grade of D and Graduate level ME 5120 Minimum Grade of D or Undergraduate level ME 5120 Minimum Grade of D)</td>
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<tr>
<td>BME6704</td>
<td>Advanced Medical Imaging</td>
<td>6</td>
<td>Lecture</td>
<td>Generation, effects, and detection of ionizing radiation and its application to plain radiographic imaging in medicine. Successful completion of this course entitles students to be registered users of radioactive isotopes and radiation-generating equipment.</td>
<td>Department Managed Prerequisite(s): Undergraduate level BME 4703 Minimum Grade of D or Graduate level BME 6703 Minimum Grade of D</td>
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<tr>
<td>GER4100</td>
<td>Baroque German Lit.</td>
<td>4</td>
<td>Lecture</td>
<td>Representative German authors of the period.</td>
<td>Department Managed Prerequisite(s): Undergraduate level GER 3110 Minimum Grade of D or Undergraduate level GER 3210 Minimum Grade of D or Undergraduate level GER 3250 Minimum Grade of D or Undergraduate level GER 3260 Minimum Grade of D or Undergraduate level GER 3310 Minimum Grade of D or Undergraduate level GER 3320 Minimum Grade of D or Undergraduate level GER 3350 Minimum Grade of D or Undergraduate level GER 3410 Minimum Grade of D or Undergraduate level GER 3450 Minimum Grade of D or Undergraduate level GER 3510 Minimum Grade of D or Undergraduate level GER 3550 Minimum Grade of D or Undergraduate level GER 3610 Minimum Grade of D or Undergraduate level GER 3650 Minimum Grade of D or Undergraduate level GER 3710 Minimum Grade of D or Undergraduate level GER 3750 Minimum Grade of D</td>
<td>UG LE Lecture</td>
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<tr>
<td>PL56160</td>
<td>Sex and the Law</td>
<td>3</td>
<td>Lecture</td>
<td>Addresses how government uses law to regulate sex as activity, expression, and identity.</td>
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<tr>
<td>BIO6550</td>
<td>Plant Systematics</td>
<td>3</td>
<td>Lecture</td>
<td>The diversity of vascular plant species with an emphasis on angiosperms, phylogenetic relationships and methods, terminology pertinent to taxonomic classification and nomenclature.</td>
<td></td>
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</tr>
<tr>
<td>PPH7530</td>
<td>Health Systems Comm</td>
<td>2</td>
<td>Lecture</td>
<td>The course introduces principles and practices of communication in health systems settings. Students develop knowledge in communication styles, interpersonal relations, conflict management, grant writing, consensus building, conducting meetings, correspondence, and community communications with the media, interviews, and risk communication. Case studies are used from healthcare and other sectors. The course is presented by an interdisciplinary team of faculty and community leaders.</td>
<td></td>
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</tr>
<tr>
<td>Fall 2022</td>
<td>BIO3160</td>
<td>Vertebrate Zoology</td>
<td>BIO Biology</td>
<td>4</td>
<td>Basic structures of vertebrates: anatomy and functional morphology, major adaptations and phylogenetic constraints. Major radiations of vertebrate groups during geological, climatic, and biological events. Current threats to various vertebrate groups, such as habitat loss, loss of genetic diversity.</td>
<td>UG LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW7650</td>
<td>SW Field Ed Seminar II</td>
<td>SW Social Work</td>
<td>1</td>
<td>Integrates Field Education II experiences and coursework. Offered concurrently with advanced generalist fieldwork and competencies.</td>
<td>GR SE Seminar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY8025</td>
<td>Intro to MATLAB</td>
<td>PSY Psychology</td>
<td>2</td>
<td>This course will introduce students to the use of MATLAB in psychological research. We will cover the basics of the MATLAB environment, including the interface, data types, control flow, and plotting.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY4370</td>
<td>Psychology of Aging Cap</td>
<td>PSY Psychology</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge on theories, methods, and research related to human aging. Focus on both current research and applications from psychology. Integrated Writing course.</td>
<td>UG SE Seminar</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHY7990</td>
<td>Minor Problems</td>
<td>PHY Physics</td>
<td>1</td>
<td>Students pursue a narrow topic on a tutorial basis or be trained in a specific laboratory or computational technique. Cannot be used for thesis credit. A maximum of 6 credits may be counted toward the MS degree.</td>
<td>GR IS Independent Study</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS1180L</td>
<td>Computer Science I Lab</td>
<td>CS Computer Science</td>
<td>0</td>
<td>Required laboratory for CS 1180. Integrated Writing course.</td>
<td>UG LB Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>DAN4310</td>
<td>Pointe Class</td>
<td>DAN Dance</td>
<td>1</td>
<td>Emphasizes pointe work for the female dancer to develop strength on pointe for classical ballet.</td>
<td>UG ST Studio</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDS6080</td>
<td>Dysl Multi Sensory Instruction</td>
<td>EDS Education - Special Education</td>
<td>3</td>
<td>Provides insight/in-depth knowledge regarding dyslexia: history, theory, brain-based research, methodologies, instructional strategies, effective instruction, assistive technology, structured language and phonics knowledge, research supported instructional procedures and an overall holistic understanding of learners with dyslexia.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW6740</td>
<td>Child Welfare II</td>
<td>SW Social Work</td>
<td>3</td>
<td>Addresses the developmental and permanence needs of children in the child welfare system.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW3750</td>
<td>Hum Behav Soc Envi - Macro</td>
<td>SW Social Work</td>
<td>3</td>
<td>Analysis of groups, systems, and community organizations in order to guide assessment, intervention, and evaluation of social work practice. Includes theories such as systems theory, social justice, oppression, and basic human rights.</td>
<td>UG LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MTE6400</td>
<td>History of Mathematics</td>
<td>MTE Mathematics - Teacher Education</td>
<td>3</td>
<td>Mathematics as an on-going human activity. Historical development and contributions from diverse cultures of: number systems; measurement; algebra; Euclidean and non-Euclidean geometries; calculus; discrete mathematics; and statistics and probability.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME6750</td>
<td>Pathogenic Mechanisms</td>
<td>Mi Microbiology &amp; Immunology</td>
<td>4</td>
<td>(Also listed as BMS 7750) This advanced level course will expand the knowledge of basic microbiology by focusing on human-microbial pathogen interactions. The molecular basis of the pathogenic mechanisms will be emphasized. In addition, the student will gain a better appreciation and understanding of the complexities of interactions between microbes and their human hosts.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE4470</td>
<td>Antenna Theory &amp; Design</td>
<td>EE Electrical Engineering</td>
<td>3</td>
<td>Linear dipole antennas, antenna arrays, thin-wire antennas, moment method analysis examples (vee dipole, folded dipole, etc.), and broadband and frequency-independent antennas. Computer-aided design and analysis of wire antennas, feed networks, and antenna arrays using antenna CAD software.</td>
<td>UG LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MGT6250</td>
<td>Compensation and Benefits</td>
<td>MGT Management</td>
<td>3</td>
<td>Application of compensation and benefits theory to local small businesses, job analyses, job descriptions, wage and benefit surveys, market pricing, point-factor job evaluations, graded salary structure, and related policies.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MI4200</td>
<td>Neu-InmSys Crs-Tik Hmsts</td>
<td>Mi Microbiology &amp; Immunology</td>
<td>3</td>
<td>Multidirectional interactions between the nervous and immune systems have been documented in homeostasis and pathologies ranging from multiple sclerosis to autism, and from leukemia to acute and chronic inflammation. This course focuses on neuro-immune interactions at barrier surfaces—mostly the gut, but also including the skin and the airways, areas densely populated by neurons and immune cells that constantly sense and adapt to tissue-specific environmental challenges.</td>
<td>UG LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME7750</td>
<td>Adv Egr Materials</td>
<td>ME Mechanical and Materials Engr</td>
<td>3</td>
<td>This course will define and explain crystalline structure of materials, different types of amorphous structures, polarization, band structures and thermal properties, nanostructures, magnetic behavior of materials, and optical phenomena.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>AVI2000</td>
<td>Intro to Aviation</td>
<td>AVI Aviation</td>
<td>3</td>
<td>Introduction to aviation systems and careers: airlines, business, freight, flight test, and military flight operations. Introduces aviation systems including aircraft, airports, airspace, and regulatory environment for the broad range of aviation activities.</td>
<td>UG LE Lecture</td>
<td></td>
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</tr>
<tr>
<td>Fall 2022</td>
<td>MLB4411</td>
<td>Hemostasis Lab</td>
<td>MLB Medical Laboratory Science</td>
<td>0.5</td>
<td>Blood vessel contraction, platelet activation and formation, and activation of coagulation factors, and their use in diagnosing coagulation defects and monitoring anticoagulant therapy. This course has a fee that is non-refundable once the term begins.</td>
<td>UG LB Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LDR8020</td>
<td>Strat Planning in Orgs</td>
<td>LDR Leadership</td>
<td>3</td>
<td>Study of organizational strategic planning theory and practices. Includes development of strategic plans for organizations.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>COM3330</td>
<td>Persuasion &amp; Rhet Theory</td>
<td>COM Communication</td>
<td>3</td>
<td>Delineation of the concept of persuasion together with an overview of general rhetorical theory. Preparation and presentation of persuasive communication. Integrated Writing course.</td>
<td>UG LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHI1020</td>
<td>Beginning Chinese II</td>
<td>CHI Chinese</td>
<td>3</td>
<td>Communicative introduction to Chinese. Study of the vocabulary and structure of the Chinese language; practice in conversation, reading, and writing.</td>
<td>UG LE Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL5540</td>
<td>Asian RELS and Ecology</td>
<td>REL Religion</td>
<td>3</td>
<td>An examination of Asian religious perspectives (Confucianism, Daoism, Buddhism, and Shinto) on the meaning and value of the natural world and the relationship between human beings and nature. Focuses on environmental ethics in comparative Asian perspective.</td>
<td>GR LE Lecture</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Fall 2022
ED4800 4800
AYA Prof Seminar
ED Education 3
Seminar accompanying AYA Student Teaching focusing on pedagogical content knowledge and the and completion of and submission of the edTPA.
UG SE Seminar

Fall 2022
CS2570R 2570R
Recitation for MTH 2570
CS Computer Science 1
Recitation for MTH 2570.
UG RE Recitation

Fall 2022
SCM7880 7880
Foundations of SCM
SCM Supply Chain Management 3
Strategic role of integrated supply chain management; supply chain design and dynamics; supply chain frameworks and customer-focused design. This course has a fee that is non-refundable once the term begins.
GR LE Lecture

Fall 2022
SPN6810 6810
Ind Read Grad Students
SPN Spanish 3
Independent reading for graduate students. <b>Department Managed Prerequisite(s):</b> Graduate level SPN 5110 Minimum Grade of D or Graduate level SPN 5120 Minimum Grade of D or Graduate level SPN 5210 Minimum Grade of D or Graduate level SPN 5220 Minimum Grade of D.
GR IS Independent Study

Fall 2022
EE7490 7490
Antenna Theory & Design
EE Electrical Engineering 3
The course introduces the fundamental principles of antenna theory, covering radiation integrals, auxiliary potential functions, fundamental parameters of antennas, linear wire antennas, loop antennas, antenna arrays, microstrip antennas, and traveling wave antennas. Antenna teaching lab will be developed to assist students to learn the design, fabrication, and characterization of various types antenna.
GR LE Lecture

Fall 2022
BIO3120 3120
General Microbiology
BIO Biology 5
Morphology, cultivation, and biochemical activities of microorganisms. Viruses, bacteria, blue-green algae, fungi and their diversity in natural environments.
UG LE Lecture

Fall 2022
TMG2040 2040
Fund of Management
TMG Technical Management 3
Management skills, global management skills, organizational behavior, communication and technology management skills.
UG LE Lecture

Fall 2022
ART3010 3010
Independent Study in Art
ART Art 1
Special studies and intensive individual work with faculty supervision.
UG IS Independent Study

Fall 2022
REL3930 3930
Faith and Reason
REL Religion 3
Introduction to issues in philosophy of religion. Topics vary.
UG LE Lecture

Fall 2022
AFS3000 3000
History of Africa
AFS Afr /Afr Amer Studies 3
General introduction to African history. Covers the culture and history of the region from early time periods to the modern era.
UG LE Lecture

Fall 2022
ED4340 4340
Large Arts Meths for MCE
ED Education 3
A developmental and integrated approach to teaching language arts (reading, writing, speaking & listening, and language) for middle level classroom, grades 4-9. Includes development of appropriate objectives, planning, resources and facilities, evaluation, and trends.
UG LE Lecture

Fall 2022
PLS6910 6910
Independent Research
PLS Political Science 1
Supervised individual research on a selected topic arranged between the student and faculty member directing the study.
GR IS Independent Study

Fall 2022
ED4830 4830
Resch to Imp Class Inst
ED Education 2
Introduction to reading educational research, including applied and theoretical and qualitative and quantitative. Differentiation of quality/applicability of research articles. Understanding researchable questions and how questions determine the methodology. Searching for appropriate literature.
GR SE Seminar

Fall 2022
P&N8990 8990
Physiology Research
P&N Physiology & Neuroscience 1
Supervised thesis research.
GR IS Independent Study

Fall 2022
ACCT7470 7470
Current Topics Acctg
ACC Accountancy 3
This course is an overview of issues directly impacting the accounting profession or issues impacting business that indirectly effect the accounting profession.
GR SE Seminar

Fall 2022
ASM7572 7572
Aerospace Skills II
ASM Aerospace Medicine 2
This is the second in a series of three courses designed to bridge traditional didactic knowledge obtained in the classroom with the post-graduation operational aerospace environment. Areas studied include human factors concepts and their integration and application to aerospace accident investigation. Contemporary accident investigation classification systems and utilization of the Divisions flight simulator will be employed in recreating mishaps to further strengthen learning outcomes.
GR SE Seminar

Fall 2022
PN6300 6300
Med Cell Bio & Phys
PN Physiology & Neuroscience 3
This is an interdisciplinary course that brings together fundamental concepts of biochemistry, molecular biology, cell biology and cell physiology of eukaryotic cells and applies this knowledge to explaining disease mechanisms.
GR LE Lecture

Fall 2022
ENG7200 7200
Teaching College Comp
ENG English 3
Introduction to the theory and pedagogy of college-level writing courses. Requires concurrent teaching or tutorial experience. Required of all first-year English teaching assistants.
GR LE Lecture

Fall 2022
NUR7613 7613
Psych MH NP Pract II
NUR Nursing 7
The focus is on synthesis of knowledge and implementation of the role of the Psychiatric-Mental Health Nurse Practitioner (PMHNP).Experiences emphasize clinical decision making in an inter-professional environment with focus on the PMHNP as a principle provider of care for individuals with acute and chronic psychiatric/mental health disorders across the lifespan.
GR LE Lecture

Fall 2022
EDL9950 9950
Dist Lv Lic Prog: Mdpt
EDL Educational Leadership 1
Candidates explore various educational leadership topics/issues and their relationship to praxis.
GR SE Seminar

Fall 2022
MTH4990 4990
Selected Topics in Math
MTH Mathematics 1
Selected topics in mathematics.
UG IS Independent Study

Fall 2022
EDL8580 8580
Advanced Ed Measurement
EDL Educational Leadership 3
School district level interpretation of assessments, evaluation, accountability measures, standardization, validation, reliability, item analysis, norm setting, criterion referencing, standardized tests, and the development of district level long-range improvement and accountability systems.
GR SE Seminar

Fall 2022
CSD2870 2870
CSD Practicum I
CSD Community Services Development 1
Application of theory and practice in Community Development/Services settings. Individual supervised learning experiences and on-site seminars under the direction of instructor and site staff.
UG PR Practicum
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Title</th>
<th>Department</th>
<th>Credits</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>BIO3150L</td>
<td>Invertebrate Zoology Lab</td>
<td>BIO Biology</td>
<td>0</td>
<td>Required laboratory for BIO 3150.</td>
</tr>
<tr>
<td>FIN4810</td>
<td>Internship in Finance</td>
<td>FIN Finance</td>
<td>1</td>
<td>Faculty-supervised internship in finance. Students work in a firm or public agency, participate in seminars, and submit reports. Topics vary.</td>
</tr>
<tr>
<td>MUE2930</td>
<td>Men's Chorale</td>
<td>MUE Music Ensembles</td>
<td>1</td>
<td>Development of advanced choral and vocal skills. Emphasis on advanced choral literature from a wide range of historical and compositional styles. Audition required.</td>
</tr>
<tr>
<td>NUR7351</td>
<td>Issues in Analytical Engineering</td>
<td>NUR Nursing</td>
<td>3</td>
<td>Issues, approaches, and topics in the field of gender and sexuality studies. Titles and topics vary.</td>
</tr>
<tr>
<td>ASL3010</td>
<td>Deaf Culture &amp; Community</td>
<td>ASL American Sign Language</td>
<td>3</td>
<td>Major concepts and issues in the field of deafness, integrating the disciplines of history, anthropology, linguistics, creative arts, and literature as they apply to deaf culture and the deaf community and the current cultural trends and issues.</td>
</tr>
<tr>
<td>SCM3070</td>
<td>Ops &amp; Supply Chain Management</td>
<td>SCM Supply Chain Management</td>
<td>3</td>
<td>Examine the major management decision areas in the design and offering of goods and services. Major topics include operations strategy, planning and control systems, quality management, and project management.</td>
</tr>
<tr>
<td>PHL5510</td>
<td>Scientific Revolutions</td>
<td>PHL Philosophy</td>
<td>3</td>
<td>A look at dramatic paradigm shifts in the history of science including Newton, Einstein, Darwin, quantum theory and emerging ideas today.</td>
</tr>
<tr>
<td>PHY5500</td>
<td>Advanced Physics Lab - I</td>
<td>PHY Physics</td>
<td>2</td>
<td>Laboratory projects designed to introduce the participant to modern physics laboratory techniques by doing standard measurements or reproducing historic experiments.</td>
</tr>
<tr>
<td>URS6500</td>
<td>Issues in Metro Planning</td>
<td>URS Urban Affairs</td>
<td>3</td>
<td>Examination of a range of topics related to planning metropolitan environments. Topics include housing, growth and regionalism.</td>
</tr>
<tr>
<td>EES4570</td>
<td>Site Remed &amp; Management</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>3</td>
<td>Physical, chemical, and biological methods used to remediate contamination in soils and groundwater, emphasizing practical applications. Strategies and technologies to address contamination, including the natural attenuation, containment techniques, pump-and-treat, and in situ technologies. Sufficient technical detail so the student can apply basic engineering design equations.</td>
</tr>
<tr>
<td>CEG8930</td>
<td>PhD Qualifying Exam</td>
<td>CEG Computer Engineering</td>
<td>1</td>
<td>Examination that tests understanding of the fundamentals necessary to begin concentrated study in a chosen Ph.D. research area.</td>
</tr>
<tr>
<td>PHL4200</td>
<td>Symbolic Logic II</td>
<td>PHL Philosophy</td>
<td>3</td>
<td>Standard notations, principles of inference, formal systems, and methods of proof. Focus on first-order predicate logic. Students who have taken PHL 3230 cannot take PHL 4200.</td>
</tr>
<tr>
<td>FAS2010</td>
<td>Agricultural Economics</td>
<td>FAS Food and Agricultural Systems</td>
<td>3</td>
<td>Fundamentals of economic issues relevant to the agricultural industry. Topics include agricultural production and distribution, markets, international trade, entitlement programs, and commodity contracts/trading.</td>
</tr>
<tr>
<td>HPR2430</td>
<td>Motor Dev &amp; Learning</td>
<td>HPR Health Phy Educ &amp; Recreation</td>
<td>4</td>
<td>Examination of the factors influencing the development, performance and learning of motor skills.</td>
</tr>
<tr>
<td>NUR7351</td>
<td>Curriculum Development</td>
<td>NUR Nursing</td>
<td>3</td>
<td>Analysis of learning theories and models of nursing curriculum design. Development and evaluation of nursing curriculum and educational programs.</td>
</tr>
<tr>
<td>PLS4030</td>
<td>Campaigns and Elections</td>
<td>PLS Political Science</td>
<td>3</td>
<td>American political electoral institutions and processes, and campaigns. Emphasis on readings, discussion, and research. Integrated Writing course.</td>
</tr>
<tr>
<td>IT2240</td>
<td>Fund of Weblog Design</td>
<td>IT Information Technology</td>
<td>3</td>
<td>Creating a weblog for the purpose of communicating or promoting an idea and evaluating the effectiveness of a weblog using visitor comments and web analytics.</td>
</tr>
<tr>
<td>BIO7000</td>
<td>Prin Instruction Biology</td>
<td>BIO Biology</td>
<td>1</td>
<td>Survey of available instructional materials and discussion of educational theory and techniques leading to more effective instruction.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Title</td>
<td>Description</td>
<td>Credits</td>
<td>Component(s)</td>
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<tr>
<td>TH3760</td>
<td>Design Studio</td>
<td>TH Theatre</td>
<td>3</td>
<td>UG</td>
</tr>
<tr>
<td>RHB2010</td>
<td>Intro to Rehab Services</td>
<td>RHB Rehabilitation</td>
<td>3</td>
<td>UG</td>
</tr>
<tr>
<td>PSY6941</td>
<td>Animal Beh Cmp w/FlstSdyAbt</td>
<td>PSY Psychology</td>
<td>5</td>
<td>GR</td>
</tr>
<tr>
<td>BME6730</td>
<td>Neurophotic &amp; Optical BrainMap</td>
<td>BME Biomedical Engineering</td>
<td>3</td>
<td>GR</td>
</tr>
<tr>
<td>BIO4880</td>
<td>Independent Reading</td>
<td>BIO Biology</td>
<td>1</td>
<td>UG</td>
</tr>
<tr>
<td>ARA4210</td>
<td>Intro to Media Arabic</td>
<td>ARA Arabic</td>
<td>3</td>
<td>UG</td>
</tr>
<tr>
<td>EES4480</td>
<td>Plate Tectonics</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>3</td>
<td>UG</td>
</tr>
<tr>
<td>ED5070</td>
<td>MCE Gen Math Instruction</td>
<td>ED Education</td>
<td>3</td>
<td>UG</td>
</tr>
<tr>
<td>TH2100</td>
<td>Theatre Technology</td>
<td>TH Theatre</td>
<td>2</td>
<td>UG</td>
</tr>
<tr>
<td>MIS7800</td>
<td>Mgt of Tech Services</td>
<td>MIS Management Information Systems</td>
<td>3</td>
<td>UG</td>
</tr>
<tr>
<td>PSY3230</td>
<td>Cognition &amp; Learning Mth</td>
<td>PSY Psychology</td>
<td>4</td>
<td>UG</td>
</tr>
<tr>
<td>CEG3410</td>
<td>Intro Digital Forensics</td>
<td>CEG Computer Engineering</td>
<td>3</td>
<td>UG</td>
</tr>
<tr>
<td>IHE7920</td>
<td>MEIE Team Project II</td>
<td>IHE Industrial &amp; Hum Fac Engr</td>
<td>3</td>
<td>GR</td>
</tr>
<tr>
<td>PLS4440</td>
<td>Topics Criminal Justice</td>
<td>PLS Political Science</td>
<td>3</td>
<td>UG</td>
</tr>
<tr>
<td>EDL8630</td>
<td>Adv Curr Anlys &amp; Account</td>
<td>EDL Educational Leadership</td>
<td>3</td>
<td>GR</td>
</tr>
<tr>
<td>REL3310</td>
<td>Introduction to Islam</td>
<td>REL Religion</td>
<td>3</td>
<td>UG</td>
</tr>
<tr>
<td>MIS3000</td>
<td>Fundamentals of Info Sys</td>
<td>MIS Management Information Systems</td>
<td>3</td>
<td>UG</td>
</tr>
<tr>
<td>Semester</td>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Prerequisites</td>
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<tr>
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</tr>
<tr>
<td>Fall 2022</td>
<td>PSY3510 3510</td>
<td>3</td>
<td>Social Psychology, Psychology</td>
<td>Current theories and experimental findings examining the situational and social causes underlying people's attitudes, beliefs, and behaviors.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATH3310 3310</td>
<td>3</td>
<td>Human Evolution, Anthropology</td>
<td>Review of the fossil and archaeological records and the genetic evidence for human evolution, and examination of evolutionary principles and current issues addressed by paleoanthropology. Department Managed Prerequisite(s): Undergraduate level ATH 2100 Minimum Grade of D.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHIL3020 5020</td>
<td>3</td>
<td>Medieval Philosophy, Philosophy</td>
<td>History of philosophy from Augustine to Ockham. Topics vary.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG3530 3530</td>
<td>3</td>
<td>Young Adult Literature, English</td>
<td>Introduction to various genres of young adult literature with an emphasis on the selection and analysis of books for adolescents.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDS3320 3320</td>
<td>3</td>
<td>Teaching Strategies, Education - Special Education</td>
<td>Interpreting information for identification/placement of individuals with exceptional learning needs within the middle school curriculum. Organizing strategies/Interventions based on student assessment. Field experiences required.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW7620 7620 80</td>
<td>2</td>
<td>SW Field Ed II, Social Work</td>
<td>Completion of 300 hours of field education experience in the community. Provides the opportunity for students to engage in selected and organized activities, with or on behalf of clients, that apply the social work skills, knowledge, and values learned in the classroom.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES2550L 2550L</td>
<td>0</td>
<td>Earth History Lab, Earth &amp; Environmental Sciences</td>
<td>Required laboratory for EES 2550.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME4550 4550</td>
<td>4</td>
<td>Biomedical Engineering</td>
<td>Various electrodes, transducers, chemical sensors, special circuits, devices and methods for measuring biological signals and variables; therapeutic and prosthetic devices; electrical safety.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>DOS9035 9035</td>
<td>3</td>
<td>Doctor Org Studies</td>
<td>This course focuses on theory, research, and current trends related to organizational theory from the individual, team, and organizational perspectives.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL7645 7645</td>
<td>3</td>
<td>Action Research for Tchr Ldrs, Educational Leadership</td>
<td>This course employs action research techniques and processes to lead fellow educators in schools, emphasizing reflective practices, basic quantitative and qualitative data analysis techniques for leading instruction, and making data driven decisions.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FAS2400 2400</td>
<td>3</td>
<td>Food Microbiology</td>
<td>Microorganisms of importance to the food industry: their characteristics, utilization and control.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS6440 6440</td>
<td>3</td>
<td>Topics Criminal Justice, Political Science</td>
<td>Problems, approaches, and topics in the field of criminal justice and legal studies. Topics vary.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR7733 7733</td>
<td>6</td>
<td>NNP Practice 1, Nursing</td>
<td>The clinical focus is on beginning clinical competencies in the neonatal intensive care unit. The course begins the study of embryology, neonatal pathophysiology, and management of disease process. Students will learn a new role as a member of an interprofessional team, the use of documentation systems, patient rounds, patient management, database development, discharge planning, x-ray interpretation, and the provision of culturally competent care.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>STT3666 3666</td>
<td>1</td>
<td>Actuarial Prob Exam Prep, Statistics</td>
<td>Seminar course that assists students who wish to prepare to sit for the Society of Actuaries (SOA) Exam P. It is expected that students enrolling in this course will already have taken courses in probability and statistics that have covered all or most of the topics in this ACTEX Manual and/or the Part P syllabus posted on the SOA website. Virtually all class time will be spent discussing solution techniques for sample problems of the type expected to be encountered on Exam P.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH4370 4370</td>
<td>3</td>
<td>Musical Actor Seminar, Theatre</td>
<td>Mastery of professional placement and career development skills in musical theatre and other acting professions. Includes preparation of varied audition selections and promotional materials.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME3870 3870</td>
<td>3</td>
<td>Machining, Mechanical and Materials Engr</td>
<td>Fundamentals of machining with an emphasis on engineering models of machinability, chip formation, cutting forces and power, and lubrication. Introduction to numerical control machining. Department Managed Prerequisite(s): Undergraduate level BME 3212 Minimum Grade of D.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUE4900 4900</td>
<td>1</td>
<td>University Chorus, Music Ensembles</td>
<td>Development of choral and vocal skills. Choral literature from a wide range of historical and compositional styles. No auditions required.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO7020 7020</td>
<td>1</td>
<td>Intro Research Biology, Biology</td>
<td>The class will emphasize building talents and skills required to succeed in the Biology M.S. program. Special emphasis will be placed on the components of proposal writing that are required for degree completion. The class will also emphasize how to conduct responsible and ethical research. This will include obtaining the necessary approvals required by the university.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO7020 7020</td>
<td>1</td>
<td>Microbiology Seminar, Microbiology &amp; Immunology</td>
<td>Learn contemporary topics in the field of microbiology and immunology through in-depth class discussions of state-of-the-art research articles. Gain knowledge of the scientific method and explore new methodologies in the field. Understand how to critically evaluate scientific literature, synthesize new concepts, and communicate ideas to others. Topics vary each semester and course can be repeated for credit.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SAA6651 6651</td>
<td>3</td>
<td>Study Abroad in SAHE, Student Affairs in Higher Ed</td>
<td>Provides students with foundational knowledge and skills in study abroad practice and research in higher education.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MTH6240</td>
<td>6240 Coding Theory</td>
<td>MTH Mathematics</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>PTX7200</td>
<td>7200 Biokinetics/Bio dynamics</td>
<td>PTX Pharmacology/Toxiology</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG4750</td>
<td>4750 Information Security</td>
<td>CEG Computer Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO6720</td>
<td>6720 Ornithology</td>
<td>BIO Biology</td>
<td>4</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES3240</td>
<td>3240 American Environmental History</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1420A</td>
<td>1420A Orienteering/Land Navigation</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EC2500</td>
<td>2500 Econ Sys of Glob South</td>
<td>EC Economics</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW8610</td>
<td>8610 SW Field Ed I</td>
<td>SW Social Work</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUE4990</td>
<td>4990 Collegiate Chorale</td>
<td>MUE Music Ensembles</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4340</td>
<td>4340 Political Leadership</td>
<td>PLS Political Science</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR2600</td>
<td>2600 Circpt Pathophysiology Lifespan</td>
<td>NUR Nursing</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1290A</td>
<td>1290A H2O Zumba</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG3810</td>
<td>3810 Anthoch Writers Workshop</td>
<td>ENG English</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>FAS2810</td>
<td>2810 Intro Precision Agriculture</td>
<td>FAS Food and Agricultural Systems</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LAT4530</td>
<td>4530 Roman History and Bio Latin</td>
<td>LAT Latin</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CRT2030</td>
<td>2030 Probation and Parole</td>
<td>CRT Corrections</td>
<td>3</td>
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<tr>
<td>Quarter</td>
<td>Course Code</td>
<td>Title</td>
<td>Description</td>
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<tr>
<td>Fall 2022</td>
<td>MBA 5400</td>
<td>Survey of Law</td>
<td>Course offers MBA students without prior course work in business law a survey of topics related to domestic and international business law with the focus on practical applications of basic legal principles. The course offers direct experience with the tools of legal analysis in order to provide students with the fundamentals for making well-grounded business decisions. Subject areas include contracts, torts, constitutional, employment law, corporations, LLCs and other aspects of commercial law.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL 9930</td>
<td>Sch Dist Finance Bus Mgt</td>
<td>Guiding principles for developing adequate district fiscal programs; study of local, state, and federal revenue sources; and, procedures in management of district funds.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS 6700</td>
<td>Database Management Systems</td>
<td>Logical and physical aspects of database management systems are surveyed. Data models including entity-relationship (ER) and relational models are presented. Physical implementation (data organization and indexing) methods are discussed. Query languages including SQL, relational algebra, relational calculus, and QBE are studied. Database schema design methods are presented.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>IHE 6820</td>
<td>Supp Ch Analy &amp; Des</td>
<td>Develops an understanding of the strategic issues of facility planning and determination of facility requirements; quantitative models for complex facility design, location, and planning decisions are presented, as well as an overview of material handling equipment design and selection. (Undergraduate level IHE 6711 Minimum Grade of C)</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>APS 4260</td>
<td>Trends Issues in Health Care</td>
<td>This course provides a foundation in Health Services Administration. The course introduces students to the structure and functions of the US Health Care System.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE 7840</td>
<td>Computer Vision</td>
<td>Algorithms for low- and mid-level vision, including noise filtering, edge detection, image segmentation, texture analysis, feature extraction, stereo depth perception, camera calibration, 3-D reconstruction, shape from shading.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL 5900</td>
<td>Topics in Phil of Relig</td>
<td>Examination of selected topics related to the philosophy of religion.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MKT 7100</td>
<td>Digital Marketing</td>
<td>This course highlights key fundamentals of successful integrated online/offline marketing with an emphasis on using the Internet &amp; other marketing tools and technologies. Objectives are to understand basic principles of marketing; how to design an e-commerce web site using Internet marketing principles &amp; various Internet Business Models; the legal, social &amp; ethical issues faced by Internet marketers; global implications &amp; how to use technologies in marketing.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG 5120</td>
<td>Design of Info Tech Sys</td>
<td>Uses modern language features and software development practices to design and develop a distributed information technology system. (Undergraduate level CS 1181 Minimum Grade of D)</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED 6650</td>
<td>AYA: Int Math Methods</td>
<td>This course will examine curriculum, methods, and materials in the teaching of mathematics for grades 7-12. This includes lesson planning, assessment, differentiation, technology, and content for algebra and geometry courses.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS 6890</td>
<td>Foreign Service Seminar</td>
<td>Learn about foreign service and prepare for the U.S. foreign service exam. Will review components of the exam, learn about the exam process and available jobs, and practice interviewing and other skills necessary to pass the exam.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH 8990</td>
<td>Phys Ed Research</td>
<td>Under the supervision of a thesis committee and chair, students select a physical education problem, prepare a proposal detailing the research question, complete the research, write their thesis with full documentation and defend their work before the committee.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ART 2310</td>
<td>Painting for Non-Majors</td>
<td>Introduction to the materials, techniques, concepts and practice of painting. Using acrylic paint, students will explore the fundamentals of observational painting with an emphasis on drawing, tonality, color mixing and composition.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MTH 6150</td>
<td>Scientific Computation</td>
<td>Modern computational techniques for simulating scientific phenomena. (Undergraduate level MTH 3140 Minimum Grade of D or Undergraduate level MTH 4160 Minimum Grade of D) and (Undergraduate level MTH 3060 Minimum Grade of D)</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NEU 3200</td>
<td>How Nerv Sys Works I</td>
<td>How the nervous system works among and between neural networks to elicit behavioral responses to external and internal stimuli. Topics will include 1) how the brain interacts with the world, 2) higher levels of interaction, and 3) motivated behaviors. Integrated Writing course.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATH 5600</td>
<td>Neuroscience</td>
<td>Intensive graduate-level study of selected topics in neuroscience. Topics vary.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PTX 8060</td>
<td>Six Sigma, Green Belt</td>
<td>This course is an introduction to the tools and techniques of the lean six sigma philosophy of management that focuses on eliminating defects through practices that emphasize understanding, measuring, and improving processes.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHIL 5100</td>
<td>American Philosophy</td>
<td>A look at the American Pragmatist tradition from Pierce, James and Dewey to more recent American philosophers such as Quine, Davidson, Putnam and Rorty.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHY 2460</td>
<td>Concepts in Physics MCE</td>
<td>Fundamental concepts and applications of physics designed for middle childhood education majors. Topics are integrated with mathematics and include laboratory experiences, demonstrations, and projects. Students may use either PHY 2450 or PHY 2460, but not both courses, to satisfy the requirements of the WSU Core.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUS 5020</td>
<td>Intro Res in Music Ed</td>
<td>A comprehensive introduction to research in Music Education and its value and contribution to the development of historical data, pedagogy, ethnographic research and understanding of contemporary issues in music instruction and performance.</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Department</td>
<td>Prerequisites</td>
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<tr>
<td>MUS2260</td>
<td>2</td>
<td>Band Methods Voice/Str.</td>
<td>Music</td>
<td></td>
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<tr>
<td>WGS6500</td>
<td>4</td>
<td>Lectures</td>
<td>Materials</td>
<td></td>
</tr>
<tr>
<td>EES4300</td>
<td>4</td>
<td>Introduction to VLSI System and Subsystem Design</td>
<td>Materials</td>
<td></td>
</tr>
<tr>
<td>LDR8700</td>
<td>3</td>
<td>Workshop in Leadership</td>
<td>Leadership</td>
<td></td>
</tr>
<tr>
<td>WGS6500</td>
<td>3</td>
<td>Topics in Feminist Theory</td>
<td>Women's Studies</td>
<td></td>
</tr>
<tr>
<td>EDS6570</td>
<td>3</td>
<td>Inst &amp; Beh Manage Interv Spec</td>
<td>Education - Special Education</td>
<td></td>
</tr>
<tr>
<td>LE1010</td>
<td>3</td>
<td>Criminal Law for Law Enforcement</td>
<td>Law Enforcement</td>
<td></td>
</tr>
<tr>
<td>IHE7930</td>
<td>1</td>
<td>Non-Thesis Resrch in IHE</td>
<td>Industrial &amp; Hum Fac Engr</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Course Title</td>
<td>Type</td>
<td>Component</td>
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<td>TMG2100</td>
<td>2100</td>
<td>Personnel Management</td>
<td>TMG</td>
<td>Technical Management</td>
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<tr>
<td>CNTL2700</td>
<td>7270</td>
<td>Coun Life-Span Develop</td>
<td>CNL</td>
<td>Counseling</td>
</tr>
<tr>
<td>NUR7003</td>
<td>7003</td>
<td>Hlth Policy &amp; Politics</td>
<td>NUR</td>
<td>Nursing</td>
</tr>
<tr>
<td>RELS4900</td>
<td>5490</td>
<td>Hindu Goddesses</td>
<td>REL</td>
<td>Religion</td>
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<tr>
<td>ABS7603</td>
<td>7603</td>
<td>Sem CJ Issues &amp; Policy</td>
<td>ABS</td>
<td>Applied Behavioral Science</td>
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<tr>
<td>PSY6310</td>
<td>6310</td>
<td>Clinical Psychology</td>
<td>PSY</td>
<td>Psychology</td>
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<tr>
<td>PHY7100</td>
<td>7100</td>
<td>Quantum Mechanics I</td>
<td>PHY</td>
<td>Physics</td>
</tr>
<tr>
<td>CHM7510</td>
<td>7510</td>
<td>Chemical Kinetics</td>
<td>CHM</td>
<td>Chemistry</td>
</tr>
<tr>
<td>EE4820</td>
<td>4820</td>
<td>Part-Time CPT in EE</td>
<td>EE</td>
<td>Electrical Engineering</td>
</tr>
<tr>
<td>PPH7910</td>
<td>7910</td>
<td>Independent Study</td>
<td>PPH</td>
<td>Population &amp; Public Health</td>
</tr>
<tr>
<td>IHE8950</td>
<td>8950</td>
<td>Resch IHE Research Methods I</td>
<td>IHE</td>
<td>Industrial &amp; Hum Fac Engr</td>
</tr>
<tr>
<td>ABS7100</td>
<td>7100</td>
<td>Research Methods I</td>
<td>ABS</td>
<td>Applied Behavioral Science</td>
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<td>NUR7114</td>
<td>7114</td>
<td>Nursing Elective</td>
<td>NUR</td>
<td>Nursing</td>
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<td>MES5350</td>
<td>5350</td>
<td>Fluid Dynamics</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
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<td>PHL6710</td>
<td>6710</td>
<td>Philosophy of Science</td>
<td>PHL</td>
<td>Philosophy</td>
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<tr>
<td>EES6100</td>
<td>6100</td>
<td>Earth Science Research</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
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<tr>
<td>PSY4640</td>
<td>4640</td>
<td>Psych Religion Capstone</td>
<td>PSY</td>
<td>Psychology</td>
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<tr>
<td>M&amp;H2600</td>
<td>2600</td>
<td>Immunology &amp; Immunology</td>
<td>M&amp;H</td>
<td>Microbiology &amp; Immunology</td>
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<tr>
<td>DAN3990</td>
<td>3990</td>
<td>Studies Selected Subject</td>
<td>DAN</td>
<td>Dance</td>
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<td>IT2300</td>
<td>2300</td>
<td>E-Commerce Advertising</td>
<td>IT</td>
<td>Information Technology</td>
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<td>PHL5050</td>
<td>5050</td>
<td>Analytic Philosophy</td>
<td>PHL</td>
<td>Philosophy</td>
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<td>IHE7850</td>
<td>7850</td>
<td>Lean Proc Imp for Engr</td>
<td>IHE</td>
<td>Industrial &amp; Hum Fac Engr</td>
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<td>3020</td>
<td>APS Leadership</td>
<td>APS</td>
<td>Applied Studies</td>
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<td>Department</td>
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<td>GR5530</td>
<td>5530</td>
<td>Readings in Greek Poetry</td>
<td>GR Greek</td>
<td>3</td>
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<tr>
<td>KNH1450A</td>
<td>1450</td>
<td>Rape Defense Strategies Basic</td>
<td>KNH</td>
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<tr>
<td>EES4470</td>
<td>4470</td>
<td>Astronomy for K-12 Teachers</td>
<td>EES</td>
<td>2</td>
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<tr>
<td>SOC4650</td>
<td>4650</td>
<td>Girl, Sex &amp; Hum Rights</td>
<td>SOC</td>
<td>3</td>
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<td>TH3540</td>
<td>3540</td>
<td>Speech II</td>
<td>TH</td>
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<tr>
<td>CST220</td>
<td>7220</td>
<td>Computability/Complexity</td>
<td>CS</td>
<td>3</td>
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<tr>
<td>TH1240</td>
<td>1240</td>
<td>Theatre Graphics I Fund</td>
<td>TH</td>
<td>3</td>
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<td>PSY3070</td>
<td>3070</td>
<td>Tests &amp; Measures</td>
<td>PSY</td>
<td>3</td>
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<td>OIS1010</td>
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<td>Professional Devel I Office Information Systems</td>
<td>OIS</td>
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<td>PHL3000</td>
<td>3000</td>
<td>Critical Thinking</td>
<td>PHL</td>
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<td>CEG4330</td>
<td>4330</td>
<td>Microproc Embedded Sys</td>
<td>CEG</td>
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<tr>
<td>ENG3060</td>
<td>3060</td>
<td>Intro to Literary Study</td>
<td>ENG</td>
<td>3</td>
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<tr>
<td>ATR7600</td>
<td>7600</td>
<td>Neuroscience in Athletic Trng</td>
<td>ATR</td>
<td>3</td>
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<tr>
<td>EE4460</td>
<td>4460</td>
<td>Microwave Eng II</td>
<td>EE</td>
<td>3</td>
</tr>
<tr>
<td>NUR4890</td>
<td>4890</td>
<td>Ldhsp &amp; Mgmt I</td>
<td>NUR</td>
<td>3</td>
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<tr>
<td>CS1300</td>
<td>1300</td>
<td>Data Science for Everyone</td>
<td>CS</td>
<td>4</td>
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<td>EDL7570</td>
<td>7570</td>
<td>Student Assessment</td>
<td>EDL</td>
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<td>NUR7115</td>
<td>7115</td>
<td>Independent Study</td>
<td>NUR</td>
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<tr>
<td>SLI3400</td>
<td>3400</td>
<td>Linguistics of ASL</td>
<td>SLI</td>
<td>3</td>
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<tr>
<td>REL5750</td>
<td>5750</td>
<td>New Testament Intro</td>
<td>REL</td>
<td>3</td>
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<tr>
<td>EDS4510</td>
<td>4510</td>
<td>Foundations of Special Education</td>
<td>EDS</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
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<tr>
<td>CHM2110</td>
<td>Organic Chemistry I</td>
<td>2110</td>
<td>CHM</td>
<td>Principles, theories, and applications of the chemistry of carbon compounds.</td>
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<tr>
<td>UG LE Lecture</td>
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<tr>
<td>EDL9700</td>
<td>Practicum I: Supt.</td>
<td>9700</td>
<td>EDL</td>
<td>Educational Leadership</td>
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<td>PR Practicum</td>
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<tr>
<td>SCM7990</td>
<td>SCM Supply Chain Management</td>
<td>7990</td>
<td>SCM</td>
<td>The practicum provides significant opportunities for candidates to synthesize and apply the knowledge and skills identified in the district-level standards through substantial, sustained, standards-based work in real settings.</td>
</tr>
<tr>
<td>UG LE Lecture</td>
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<tr>
<td>TH1510</td>
<td>Intro to Perf. Program</td>
<td>1510</td>
<td>TH</td>
<td>Introduction to the working methods of the actor and director. Includes exploration of process through acting and directing exercises as well as discussion of the director's collaboration with the production's design team.</td>
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<tr>
<td>UG LE Lecture</td>
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<tr>
<td>KNH7100</td>
<td>PE for Chdnn w/Spec Need</td>
<td>7100</td>
<td>KNH</td>
<td>Provides an overview of the etiological, physical, and psychological considerations of disabilities in an education setting. This course contains methods of adapting activities in physical education for individuals with disabilities.</td>
</tr>
<tr>
<td>UG LE Lecture</td>
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</tr>
<tr>
<td>GER6810</td>
<td>Ind Read for Grad Student</td>
<td>6810</td>
<td>GER</td>
<td>Independent reading for graduate students. Taught in German.</td>
</tr>
<tr>
<td>IS Lecture</td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>EE6540</td>
<td>VLSI Design</td>
<td>6540</td>
<td>EE</td>
<td>Electrical Engineering</td>
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<tr>
<td>UG LE Lecture</td>
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<tr>
<td>MUS3550</td>
<td>Keyboard Musicianship</td>
<td>3550</td>
<td>MUS</td>
<td>This course provides vocal performance education majors with functional and technical keyboard skills.</td>
</tr>
<tr>
<td>UG LE Lecture</td>
<td></td>
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<tr>
<td>GR4550</td>
<td>Readings Greek Politics</td>
<td>4550</td>
<td>GR</td>
<td>Lysias, Demosthenes, Isocrates, Old Oligarch, Plato, Xenophon, and Aristotle. Topics include development of political ideas and vocabulary, nonliterary sources for our knowledge of Greek civil life, and influences on Roman theories and practices.</td>
</tr>
<tr>
<td>UG LE Lecture</td>
<td></td>
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<td></td>
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<tr>
<td>ME4520</td>
<td>Hydropower</td>
<td>4520</td>
<td>ME</td>
<td>Mechanical and Materials Eng.</td>
</tr>
<tr>
<td>UG LE Lecture</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>EDT8120</td>
<td>Inst Design Digital Lmg</td>
<td>8120</td>
<td>EDT</td>
<td>Participants will learn the basic concepts and elements of an instructional design model. The course teaches the backward design approach and alignment to ensure that courses design focus on the big ideas.</td>
</tr>
<tr>
<td>GR LE Lecture</td>
<td></td>
<td></td>
<td></td>
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</tr>
<tr>
<td>NUR4880</td>
<td>Cri Reason in Hlth Sys</td>
<td>4880</td>
<td>NUR</td>
<td>Examines system and organizational theories for the practice of professional nursing to incorporate safety and quality improvement initiatives that improving quality patient outcomes across complex health care systems.</td>
</tr>
<tr>
<td>UG LE Lecture</td>
<td></td>
<td></td>
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<tr>
<td>CTE4450</td>
<td>Essentials of CTE</td>
<td>4450</td>
<td>CTE</td>
<td>Explores the development of CTE. Federal legislation, legal issues, special needs, professional and student organizations, current issues, and the philosophy of CTE. Integrated writing course.</td>
</tr>
<tr>
<td>UG LE Lecture</td>
<td></td>
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<tr>
<td>SOC4911</td>
<td>Intensive Alcohol Educ. Prg</td>
<td>4911</td>
<td>SOC</td>
<td>Observation of and participation in intensive alcohol education program which presents individuals with factual material about the effects of substance abuse.</td>
</tr>
<tr>
<td>UG LE Lecture</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED7850</td>
<td>Act Research Adv Studies</td>
<td>7850</td>
<td>ED</td>
<td>Course provides introduction to teacher-based action research. Students learn: types of research, types of data, research methodologies, data analyses, and data interpretation within the context of education.</td>
</tr>
<tr>
<td>GR LE Lecture</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>PTX7400</td>
<td>Laboratory Management</td>
<td>7400</td>
<td>PTX</td>
<td>The topics are designed to give students laboratory management experience along with a short weekly lecture that will provide background information on the theory behind the project.</td>
</tr>
<tr>
<td>GR LE Lecture</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>ANT7890</td>
<td>Continining Registration</td>
<td>7890</td>
<td>ANT</td>
<td>Methods, curriculum, and materials for teaching adolescent school science: emphasis on philosophy, planning and implementation, evaluation, resources and facilities, and historical and contemporary curricular trends in science education.</td>
</tr>
<tr>
<td>GR IS Independent Study</td>
<td></td>
<td></td>
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<tr>
<td>ED6660</td>
<td>AYA, Science Methods</td>
<td>6660</td>
<td>ED</td>
<td>Focuses on the prescriptive knowledge of pharmacologic agents used in the treatment of common pediatric health care problems and stable chronic disease states of children. Emphasis will be placed on indications, mechanisms of action, drug interactions, side effects and parent and child.</td>
</tr>
<tr>
<td>UG LE Lecture</td>
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<tr>
<td>NUR7123</td>
<td>Pedi Pharm</td>
<td>7123</td>
<td>NUR</td>
<td>Explores technology applications of emergency management.</td>
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<tr>
<td>UG LE Lecture</td>
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<tr>
<td>KNH3500</td>
<td>Tech &amp; Emergency Mgmt</td>
<td>3500</td>
<td>KNH</td>
<td>Explores technology applications of emergency management.</td>
</tr>
<tr>
<td>UG LE Lecture</td>
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<tr>
<td>MUS6460</td>
<td>Medieval &amp; Renaissance</td>
<td>6460</td>
<td>MUS</td>
<td>Study of music and critical analysis of representative works from major composers of Medieval and Renaissance music.</td>
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<tr>
<td>UG LE Lecture</td>
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<tr>
<td>EET7160</td>
<td>Multisensor Info Fusion</td>
<td>7160</td>
<td>EE</td>
<td>Sensor characteristics, sensor information processing, management, modeling, and coordination. Statistical, Bayesian and Fisher, weighted least-square, dynamic distributed and centralized, rule-based and adaptive sensor fusion. Fusion with out-of-sequence measurements.</td>
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<tr>
<td>GR LE Lecture</td>
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<tr>
<td>Course Code</td>
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<td>Division</td>
<td>Title/Abbreviation</td>
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<tr>
<td>Fall 2022</td>
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<tr>
<td>PTX7030</td>
<td>7030</td>
<td>Ranch Mtd Anlys Genome Prjct</td>
<td>PTX</td>
<td>Pharmacology/Tax</td>
</tr>
<tr>
<td>ENG7550</td>
<td>7550</td>
<td>Study of World Englishes</td>
<td>ENG</td>
<td>English</td>
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<tr>
<td>PSY4020</td>
<td>4020</td>
<td>Adv Exp Design: Programs</td>
<td>PSY</td>
<td>Psychology</td>
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<tr>
<td>EDL9740</td>
<td>9740</td>
<td>Ltr, Law, and Spec Pop</td>
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<td>Educational Leadership</td>
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<tr>
<td>EES4540L</td>
<td>4540</td>
<td>Subsurface Fluid Flow Lab</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
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<tr>
<td>ENG4780</td>
<td>4780</td>
<td>Studies TESOL Education</td>
<td>ENG</td>
<td>English</td>
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<tr>
<td>SOC4410</td>
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<td>Applications Rch Mtd</td>
<td>SOC</td>
<td>Sociology</td>
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<tr>
<td>ART3770</td>
<td>3770</td>
<td>Fab/Construction Process</td>
<td>ART</td>
<td>Art</td>
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<td>ENG6520</td>
<td>520</td>
<td>TA Practicum I</td>
<td>ENG</td>
<td>English</td>
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<tr>
<td>MUE2990</td>
<td>2990</td>
<td>Collegiate Chorale</td>
<td>MUE</td>
<td>Music: Ensembles</td>
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<tr>
<td>CEG5310L</td>
<td>5310</td>
<td>Computer Organization Lab</td>
<td>CEG</td>
<td>Computer Engineering</td>
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<td>PPH7640</td>
<td>7640</td>
<td>Princ. of Emerg. Mgmt</td>
<td>PPH</td>
<td>Population &amp; Public Health</td>
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<td>LEPO230</td>
<td>0230</td>
<td>Grammar - Level 2</td>
<td>LEP</td>
<td>LEAP</td>
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<td>ISE3540</td>
<td>3540</td>
<td>Intro to Comp for ISE</td>
<td>ISE</td>
<td>Industrial &amp; Systems Engr</td>
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<tr>
<td>SW6800</td>
<td>6800</td>
<td>Gerontology Practicum</td>
<td>SW</td>
<td>Social Work</td>
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<td>ANT3120L</td>
<td>3120L</td>
<td>Human Structure Func II Lab</td>
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<td>Anatomy</td>
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<tr>
<td>KNH1440A</td>
<td>1440A</td>
<td>Phys Ed for Disabled</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
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<td>EES6500</td>
<td>5600</td>
<td>Water and Solid Waste</td>
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<td>Earth &amp; Environmental Sciences</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
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<td>IB4780</td>
<td>International Business</td>
<td>3</td>
<td>Explores an area of particular interest in international business. Student, faculty member, chair, and Director of University Honors will agree on course objectives, methodology, timeline, output medium, and evaluation criteria.</td>
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<tr>
<td>EED3750</td>
<td>Writing Methods P-5</td>
<td>3</td>
<td>The study of writing development, writing theory, writing genres, writing assessment, instructional pedagogy, and materials in elementary language arts program development, and the integration of literature and language arts across P-5 grade curricula. Integrated Writing course.</td>
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<tr>
<td>EC7250</td>
<td>Econ Social &amp; Eco Sys</td>
<td>3</td>
<td>Economies as subsystems of social systems and ecosystems. Karl Polanyi's and Douglass North's analysis of institutions and feedbacks between economy and culture. Human ecology and ecological economics perspectives on feedbacks between economy and ecology.</td>
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<tr>
<td>OIS2400</td>
<td>Independent Study OIS</td>
<td>1</td>
<td>Leading the pupil personnel service aspects of school operation, including ethical considerations, special education requirements, student attendance and accounting, guidance, counseling, health and wellness, discipline, and extracurricular co-curricular activities.</td>
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<tr>
<td>EDL7940</td>
<td>Bigd Budget, Mgmt, SS</td>
<td>3</td>
<td>EDL Educational Leadership</td>
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<tr>
<td>REL3820</td>
<td>Sociology of Religion</td>
<td>3</td>
<td>REL Religion</td>
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<td>PSY2130</td>
<td>Environmental Psychology</td>
<td>3</td>
<td>PSY Psychology</td>
<td>3</td>
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<tr>
<td>GR1010</td>
<td>Beginning Greek I</td>
<td>3</td>
<td>GR Greek</td>
<td>3</td>
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<tr>
<td>FR5310</td>
<td>Survey of French Lit</td>
<td>3</td>
<td>FR French</td>
<td>3</td>
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<tr>
<td>KNH1200</td>
<td>Fencing: Beginning</td>
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<td>KNH Kinesiology &amp; Health</td>
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<td>HLT2000</td>
<td>Intro to Professional Nursing</td>
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<td>HLT Health</td>
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<td>EES4410</td>
<td>Phy Geol Nat Hist Ohio</td>
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<td>EES Earth &amp; Environmental Sciences</td>
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<td>EES7490</td>
<td>Modeling Sub Fluid Flow</td>
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<td>EES Earth &amp; Environmental Sciences</td>
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<td>ASM7771</td>
<td>Fund Aerospace Med I</td>
<td>3</td>
<td>ASM Aerospace Medicine</td>
<td>3</td>
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<tr>
<td>CRT1000</td>
<td>Intro to Corrections</td>
<td>3</td>
<td>CRT Corrections</td>
<td>3</td>
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<tr>
<td>URS7040</td>
<td>Human Resources in PA</td>
<td>3</td>
<td>URS Urban Affairs</td>
<td>3</td>
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<tr>
<td>PHY3300</td>
<td>Intro to Astrophysics</td>
<td>3</td>
<td>PHY Physics</td>
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<tr>
<td>ART3150</td>
<td>Studies in 19th Century Art</td>
<td>3</td>
<td>ART Art</td>
<td>3</td>
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<tr>
<td>ART2280</td>
<td>Drawing II</td>
<td>3</td>
<td>ART Art</td>
<td>3</td>
</tr>
<tr>
<td>URS6210</td>
<td>Pub, Leadership &amp; Change</td>
<td>3</td>
<td>URS Urban Affairs</td>
<td>3</td>
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<tr>
<td>Code</td>
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<td>4421</td>
<td>1210B</td>
<td>Crit Reason Lifespan</td>
<td>NUR Nursing</td>
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<td>KNH1210B</td>
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<td>4430</td>
<td>Aeronautics</td>
<td>KNH Kinesiology &amp; Health</td>
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<td>TH1450</td>
<td>1450</td>
<td>3020</td>
<td>Acting I</td>
<td>TH Theatre</td>
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<tr>
<td>GEO4200</td>
<td>4200</td>
<td>1800</td>
<td>Remote Sensing Apps</td>
<td>GEO Geography</td>
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<td>ART5180</td>
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<td>3350</td>
<td>Art Theory and Criticism</td>
<td>ART Art</td>
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<td>ME4430</td>
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<td>Mechanical &amp; Materials Engr</td>
<td>ME Mechanical &amp; Materials Engr</td>
</tr>
<tr>
<td>ATH3020</td>
<td>3020</td>
<td>4300</td>
<td>Peoples/Culture So Asia</td>
<td>ATH Anthropology</td>
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<tr>
<td>SOC4300</td>
<td>4300</td>
<td>3350</td>
<td>Immigration &amp; Ingrtn</td>
<td>SOC Sociology</td>
</tr>
<tr>
<td>MP3350</td>
<td>3350</td>
<td>3400</td>
<td>Screenwriting Short Film</td>
<td>MP Motion Picture</td>
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<td>TH3400</td>
<td>3400</td>
<td>1800</td>
<td>Movement III</td>
<td>TH Theatre</td>
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<td>KNH1980</td>
<td>1980</td>
<td>3450</td>
<td>Zumba</td>
<td>KNH Kinesiology &amp; Health</td>
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<td>COM4250</td>
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<td>3450</td>
<td>Communication</td>
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<td>CS1180</td>
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<td>1100</td>
<td>Computer Science I</td>
<td>CS Computer Science</td>
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<td>ITA2010</td>
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<td>Intermediate Italian I</td>
<td>ITA Italian</td>
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<td>LE1130</td>
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<td>1100</td>
<td>Police Academy 4</td>
<td>LE Law Enforcement</td>
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<td>TH1100</td>
<td>1100</td>
<td>6280</td>
<td>Production Practicum I</td>
<td>TH Theatre</td>
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<td>EES6280</td>
<td>6280</td>
<td>7010</td>
<td>Colloquium</td>
<td>EES Earth &amp; Environmental Sciences</td>
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<tr>
<td>BMB7010</td>
<td>7010</td>
<td>5180</td>
<td>Selected Topics - Biochem</td>
<td>BMB Biochem &amp; Molecular Biology</td>
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<tr>
<td>PSI9960</td>
<td>9960</td>
<td>3350</td>
<td>Selected Topics</td>
<td>PSI Professional Psychology</td>
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<tr>
<td>WGS6990</td>
<td>6990</td>
<td>3100</td>
<td>Women, Gender, and Sexuality</td>
<td>WGS Women, Gender, and Sexuality</td>
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<td>REL5620</td>
<td>New Religious Movements</td>
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<tr>
<td>URS3000</td>
<td>Intro to Cities &amp; Communities Project</td>
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<tr>
<td>DAN4920</td>
<td>Advanced work in creative dance projects.</td>
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<tr>
<td>EES2010</td>
<td>Hydrology and the distribution and availability of water resources; natural and anthropogenic processes that influence water quantity and quality; water quality and contamination issues; water resources and water-richt conflicts.</td>
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<tr>
<td>CIL7330</td>
<td>Sem Culturally Informed Counsel</td>
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<td>ED8200</td>
<td>Adv Lab Sem III: Capstone Project</td>
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<td>CL4720</td>
<td>Advanced Microbiology</td>
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<td>WGS4050</td>
<td>Topics Gender &amp; Sexuality</td>
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<tr>
<td>PSY2640</td>
<td>Evolution and Psychology</td>
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<td>Clin Trial Coord Journal Club2</td>
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<td>MKT7970</td>
<td>MS in Marketing Capstone</td>
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<td>Multilevel Modeling Psy</td>
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<td>ENG4920</td>
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<td>Struct Geology &amp; Tectonics</td>
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<td>Writing - Level I</td>
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<td>AYAAMA Capstone Project</td>
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<td>PSY9080</td>
<td>Item Response Theory</td>
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<td>DAN4040</td>
<td>Music Theatre Dance II</td>
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<td>PSI9980</td>
<td>Prof Dissertation</td>
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<tr>
<td>TH4330</td>
<td>Comp Graphics Theatre II</td>
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</table>
Study of the romantic movement with representative works of Schlegel, Novalis, Wackenroder, Tieck, Eichendorff, Hoffmann, and others. Department Managed Prerequisite(s): Undergraduate level GER 3110 Minimum Grade of D or Undergraduate level GER 3120 Minimum Grade of D or Undergraduate level GEF 3210 Minimum Grade of D or Undergraduate level GER 3220 Minimum Grade of D or Undergraduate level GER 3250 Minimum Grade of D or Undergraduate level GER 3260 Minimum Grade of D or Undergraduate level GER 3310 Minimum Grade of D or Undergraduate level GER 3320 Minimum Grade of D or Undergraduate level GER 3510 Minimum Grade of D or Undergraduate level GER 3610 Minimum Grade of D.

Emphasis on electromagnetic field theory and mathematical techniques.

Topics vary. Department Managed Prerequisite(s): (Undergraduate level FR 3210 Minimum Grade of D or Undergraduate level FR 3220 Minimum Grade of D).

This course extends the theoretical understanding of human capabilities to the analysis of human behavior in complex work settings. The course covers the ergonomic, cognitive and socio-technical aspects of human behavior that influence any realistic working setting.

Study of the international aspects of financial management. Topics include foreign exchange management, international capital budgeting, international financing, tax planning, and working capital management.

Further development of personal concepts and aesthetic expression in sculpture. Emphasis on individualized approach to sculptural problems using media selected by the students. This course has a fee that is non-refundable once the term begins. Department Managed Prerequisite(s): Undergraduate level ART 3750 Minimum Grade of D and Undergraduate level ART 3760 Minimum Grade of D and Undergraduate level ART 3770 Minimum Grade of D and Undergraduate level ART 3780 Minimum Grade of D.

Individual and group study of ongoing social sciences research.

Survey of Confucianism in Chinese history, including classical expressions of Confucian thought, influential Neo-Confucian thinkers and the modern fate of Confucianism in Chinese society and culture. Topics include Heaven, human nature and self-cultivation, conceptions of the sage, and Confucian political philosophy.

Study of the policy development process and its relationship to past and current urban issues. Focuses on a current urban issue through discussion, reading, and research.

Original research of a quality that is publishable in refereed journals. Research must be acceptable to the supervisory committee, submitted in writing and defended by public oral examination. This course has a fee that is non-refundable once the term begins.

Importance of wellness and stress management to maximize their career potential in the social service field.

Participants will learn the basic concepts and elements of an instructional design model. The course teaches the "backward design" approach and "alignment" to ensure that courses design focus on the "big ideas."

Advanced strategies for writing in multiple and mixed genres.
<table>
<thead>
<tr>
<th>Fall 2022</th>
<th>ISM8000</th>
<th>8000</th>
<th>Research &amp; Career Dev. I</th>
<th>ISM</th>
<th>Interdisc. Appl. Sci. and Math</th>
<th>3</th>
<th>This course teaches the key basic skills of mapping and measurement with a Brunton compass as applied to field presentations by ISM faculty. It will introduce ISM students to research related topics including literature research, data analysis, written presentations, and oral presentations. This course will aid the student in the selection of his/her research advisor. It will also consider research ethics which will emphasize the evaluation of hypothetical ethical scenarios in research.</th>
<th>GR</th>
<th>LE</th>
<th>Lecture</th>
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<tr>
<td>Fall 2022</td>
<td>ABS7604</td>
<td>7604</td>
<td>Sem Social Problems</td>
<td>ABS</td>
<td>Applied Behavioral Science</td>
<td>1</td>
<td>In-depth coverage of special topics in applied behavioral science/social problems. Topics vary. 1-2 credit hours.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<td>Fall 2022</td>
<td>EES6340</td>
<td>6340</td>
<td>Mapping Methods</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>2</td>
<td>This course teaches the key basic skills of mapping and measurement with a Brunton compass as applied to field studies in the earth and environmental sciences. Key skills include pace &amp; compass traverse mapping, triangulation, bearing and reverse bearings, measurement of lines and planes.</td>
<td>GR</td>
<td>LL</td>
<td>Lecture/Lab Combinatio</td>
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<tr>
<td>Fall 2022</td>
<td>BMST330</td>
<td>7330</td>
<td>Adv Inorganic Chem I</td>
<td>BMS</td>
<td>Biomedical Sciences</td>
<td>2</td>
<td>Study of the modern theories of valence, structural inorganic chemistry, and the chemistry of nonmetals.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>CEG3500</td>
<td>3500</td>
<td>Intro Augment Virtual Reality</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>3</td>
<td>Introduces students to extended reality (XR) technologies and their use. Extended Reality includes augmented reality (AR) and virtual reality (VR) among others. The course will explore different technologies, concepts, and development environments that can be used for these types of content delivery. Students will directly apply these principles to design different prototypes using the available equipment.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<td>4430L</td>
<td>Vertebrate Histology Lab</td>
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<td>0</td>
<td>Required laboratory for BIO 4430.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
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<td>Fall 2022</td>
<td>MBA7220</td>
<td>7220</td>
<td>Economics for Managers</td>
<td>MBA</td>
<td>MBA</td>
<td>3</td>
<td>Applies economic theory and methods to business and administrative decision making. Prescribes rules for improving managerial decisions. Tells managers how things should be done to achieve organizational objectives efficiently. Also helps managers recognize how macroeconomic forces affect organizations, and describes the economic consequences of managerial behavior. Special attention is paid to the operation of the firm in a global economy.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<td>Fall 2022</td>
<td>GER4320</td>
<td>4320</td>
<td>20th Cent German Drama</td>
<td>GER</td>
<td>German</td>
<td>3</td>
<td>Readings and reports in 20th-century drama. Representative works of Schnitzler, Hofmannsthal, Kaiser, Toller, Brecht, and others. Department Managed Prerequisite(s): Undergraduate level GER 3110 Minimum Grade of D or Undergraduate level GER 3120 Minimum Grade of D or Undergraduate level GER 3210 Minimum Grade of D or Undergraduate level GER 3250 Minimum Grade of D or Undergraduate level GER 3260 Minimum Grade of D or Undergraduate level GER 3310 Minimum Grade of D or Undergraduate level GER 3320 Minimum Grade of D or Undergraduate level GER 3510 Minimum Grade of D or Undergraduate level GER 3610 Minimum Grade of D.&lt;b&gt; Department Managed Prerequisite(s): Undergraduate level GER 3110 Minimum Grade of D or Undergraduate level GER 3120 Minimum Grade of D or Undergraduate level GER 3210 Minimum Grade of D or Undergraduate level GER 3250 Minimum Grade of D or Undergraduate level GER 3260 Minimum Grade of D or Undergraduate level GER 3310 Minimum Grade of D or Undergraduate level GER 3320 Minimum Grade of D or Undergraduate level GER 3510 Minimum Grade of D or Undergraduate level GER 3610 Minimum Grade of D.&lt;b&gt;</td>
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<td>Lecture</td>
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<td>Fall 2022</td>
<td>KNHT400</td>
<td>7400</td>
<td>Admin Interscholastic Ath</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>3</td>
<td>Ways of directing interscholastic athletic programs. Emphasis on personnel administration, program development, facility management, fiscal management, and winning community and professional support.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>SW4890</td>
<td>4890</td>
<td>SW Field Seminar II</td>
<td>SW</td>
<td>Social Work</td>
<td>3</td>
<td>Faculty-field liaison utilizes individual and group feedback to assist students in applying generalist social work practice knowledge while planning, implementing, and processing activities at their practicum sites. Department Managed Prerequisite(s): Undergraduate level SW 4860 Minimum Grade of D and Undergraduate level SW 4870 Minimum Grade of D.&lt;b&gt;</td>
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<td>SE</td>
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<tr>
<td>Fall 2022</td>
<td>MUS4360</td>
<td>4360</td>
<td>Counterpoint</td>
<td>MUS</td>
<td>Music</td>
<td>3</td>
<td>Introduction to contrapuntal techniques. Exercises in species counterpoint, imitation and fugal devices. Analysis of examples from the Renaissance to the 20th century.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<td>Fall 2022</td>
<td>PN4990</td>
<td>4990</td>
<td>Spec Prob in Physiology</td>
<td>PN</td>
<td>Physiology &amp; Neuroscience</td>
<td>1</td>
<td>Exploration of potential careers in physiology. Studies may vary from working with instructor on an ongoing physiological research project to analysis of data obtained from completed research project.</td>
<td>UG</td>
<td>IS</td>
<td>Independent Study</td>
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<tr>
<td>Fall 2022</td>
<td>ED4700</td>
<td>4700</td>
<td>MA Prof Seminar</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>Seminar accompanying Multi Age Student Teaching focusing on pedagogical content knowledge and completion of and submission of the edTPA.</td>
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<td>SE</td>
<td>Seminar</td>
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<td>IS</td>
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<td>EDE830</td>
<td>8330</td>
<td>Theoretic Views Ed Psych</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>Focuses on the principal theoretical frameworks that guide learning and motivation as well as the measurement and assessment processes in educational settings.</td>
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<td>Fall 2022</td>
<td>SCM3300</td>
<td>3300</td>
<td>Quality &amp; Process Mgmt</td>
<td>SCM</td>
<td>Supply Chain Management</td>
<td>3</td>
<td>Principles of process and quality improvement using Six Sigma principles, value stream mapping, and Baldrige assessment.</td>
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<td>6420</td>
<td>Archaeology of Conflict</td>
<td>ATH</td>
<td>Anthropology</td>
<td>3</td>
<td>Discussion of large scale forms of conflict of the past 500 years such as warfare, structural violence, and state terrorism, as well as archaeological excavations and theories that describe and explain them. Integrated Writing course.</td>
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<td>LE</td>
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<td>5220</td>
<td>Juvenile Delinquency</td>
<td>SOC</td>
<td>Sociology</td>
<td>3</td>
<td>Problems of definition and treatment of delinquency; preparation for further study and work with delinquents.</td>
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<td>LE</td>
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<td>5140 Studies in Baroque Art</td>
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<td>PPH</td>
<td>Population &amp; Public Health</td>
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<tr>
<td>Fall 2022</td>
<td>SOC6320</td>
<td>6320 Neighborhood &amp; Commn &amp; Plur Soc</td>
<td>SOC</td>
<td>Sociology</td>
<td>GR</td>
<td>Lecture</td>
<td>LE</td>
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<td>MUS4010</td>
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<td>MUS</td>
<td>Music</td>
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<td>Fall 2022</td>
<td>KNH1180B</td>
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<td>KNH</td>
<td>Kinesiology &amp; Health</td>
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<td>Lecture</td>
<td>LB Lab</td>
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<td>Fall 2022</td>
<td>PSY2530</td>
<td>2530 Influence and Persuasion</td>
<td>PSY</td>
<td>Psychology</td>
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<td>LB Lab</td>
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<td>6850 Nano-scale Sci and Engr</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
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<td>HST4050</td>
<td>4050 Medieval History</td>
<td>HST</td>
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<td>8630 Psychometrics</td>
<td>PSY</td>
<td>Psychology</td>
<td>GR</td>
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<td>2120 IntSprint: LawEnfcmntSo cWk</td>
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<td>Lecture</td>
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<td>Fall 2022</td>
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<td>6422</td>
<td>Secure Computing Pract</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>3</td>
<td>This course describes computing practices that one should adopt to improve security in all computer work. It describes the use of cryptography, without getting into crypto algorithms, such as MD5, SHA1. Topics include secure deletion of files, secure wireless connections, Covert channels, Steganography, Sandboxes, Zombie Machines, DDoS and Man-in-the-Middle Attacks. Lab work uses tools such as ssh, TrueCrypt, GnuPGP, virtual-box.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<td>6380</td>
<td>Distrib Sys &amp; Cloud Comp</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>3</td>
<td>Study of process communication, core distributed algorithms, distributed file systems, cloud computing, and massive scale data-parallel processing.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUE4460</td>
<td>4460</td>
<td>University Saxophone Quartet</td>
<td>MUE</td>
<td>Music Ensembles</td>
<td>1</td>
<td>Performs saxophone quartet repertoire ranging from classic to jazz to contemporary. Audition required.</td>
<td>UG</td>
<td>LL</td>
<td>Lecture/Lab Combination</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GEO4410</td>
<td>4410</td>
<td>Cartography</td>
<td>GEO</td>
<td>Geography</td>
<td>4</td>
<td>Basic concepts of cartography, including components of maps, coordinate system, spatial projections, and map design. Special emphasis on data, computational methods and ethical cartographic practices.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>DEV0450</td>
<td>0450</td>
<td>Found Quant Reasoning</td>
<td>DEV</td>
<td>Developmental Education</td>
<td>3</td>
<td>Review of basic arithmetic and algebra concepts and skills including numbers and the number line, operations on numbers, equations, graphing points and lines in two dimensions, and reading tables and graphs and approximating areas. The context and examples will be from quantitative reasoning (statistics, number sense, functions). The content will be delivered to provide “just in time” remediation for MTH 1450. This course is taught as a co-requisite course for MTH 1450.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ARA5210</td>
<td>5210</td>
<td>Adv ARA Syntax &amp; Gramm I</td>
<td>ARA</td>
<td>Arabic</td>
<td>3</td>
<td>A course based in western approaches to Arabic morphology and grammar, designed to prepare students to engage primary texts, both modern and classical.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM7500</td>
<td>7500</td>
<td>Intro to Quantum Chem</td>
<td>CHM</td>
<td>Chemistry</td>
<td>3</td>
<td>Introduction to the ideas and mathematical techniques of quantum theory, including applications to some simple chemical systems.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BMS7350</td>
<td>7350</td>
<td>Human Cont Engineering</td>
<td>BMS</td>
<td>Biomedical Sciences</td>
<td>3</td>
<td>Modeling, design and analysis of the physiological and cognitive performance of the human operator. Human-environmental interactions are characterized as biothermal control systems. Human-technological interactions are characterized as informative control systems.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ML2020</td>
<td>2020</td>
<td>Chinese Culture in Film</td>
<td>ML</td>
<td>Modern Languages</td>
<td>3</td>
<td>Chinese culture and traditions in film, with special emphasis on issues related to nationhood, modernity, education, gender roles, family values, equality, and globalization.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM8990</td>
<td>8990</td>
<td>Thesis Defense</td>
<td>CHM</td>
<td>Chemistry</td>
<td>2</td>
<td>Public defense of a written thesis that is based on original research in a CHM faculty laboratory.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY2870</td>
<td>8270</td>
<td>Cognitive Neuroscience</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
<td>This graduate course will introduce students to current topics and controversies in cognitive neuroscience. The course will demonstrate how different research traditions are integrated to inform and advance present-day understanding of the relationship between brain and behavior.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG3440</td>
<td>3440</td>
<td>Black Lit &amp; Culture</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Representative works in English from the Black diaspora.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1610A</td>
<td>1610A</td>
<td>Strengthen &amp; Tone</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Strengthen &amp; Tone. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SLI3900</td>
<td>3900</td>
<td>Interpr Prof Readiness</td>
<td>SLI</td>
<td>Sign Language Interpreting</td>
<td>3</td>
<td>Preparation for practicum - reading and discussing current events and topics within the field, development of professional portfolio, resume, work samples, practicum goals and planning with 30 hour field-based observations and experience journal.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDS4690</td>
<td>4690</td>
<td>Clinical Pract Remediate</td>
<td>EDS</td>
<td>Education - Special Education</td>
<td>3</td>
<td>Use assessment data to plan and implement remediation in a school setting. Write professional case study integrating assessment and tutoring data. Includes a minimum of 24 hours in a P-12 school setting.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>URS4470</td>
<td>4470</td>
<td>PubHum Service Trans</td>
<td>URS</td>
<td>Urban Affairs</td>
<td>3</td>
<td>Principles of developing and managing public and human service transportation systems including its role in society, the history and geography of public transportation, and funding, organizational, cost benefit, labor, and customer service issues.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PTX8080</td>
<td>8080</td>
<td>Wound Healing</td>
<td>PTX</td>
<td>Pharmacology/Toxology</td>
<td>3</td>
<td>This is a translational medicine class that connects wound healing (skin anatomy and physiology phases of wound healing) with wound care (wound closure and the reconstructive ladder in plastic surgery.).</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>GEO4430</td>
<td>4430</td>
<td>Geographic Info Systems</td>
<td>GEO</td>
<td>Geography</td>
<td>4</td>
<td>Principles, structure and application of macro and micro spatial analytical techniques. Use of state-of-the art software to create map layers that can be stacked and interpreted.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>IHE6150</td>
<td>6150</td>
<td>Adv Prob &amp; Stats for Engineers</td>
<td>IHE</td>
<td>Industrial &amp; Hum Fac Engr</td>
<td>3</td>
<td>Topics in probability and statistics with an emphasis on solving engineering problems. Following this course, students will be able to analyze data, design and analyze statistically valid experiments, and draw statistically valid conclusions. Topics include probability, sampling distributions, probability distributions, confidence intervals, hypothesis testing, regression and correlation, analysis of variance (ANOVA), design of experiments, statistical process control, classification, and computer software for basic statistical analysis.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Code</td>
<td>Credits</td>
<td>Title</td>
<td>Description</td>
<td>Type</td>
<td>Hours</td>
<td>Prerequisites</td>
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<tr>
<td>NUR7720</td>
<td>7720</td>
<td>Pri Cr to Age 2 Form III</td>
<td>This course is for students enrolled in the neonatal nurse practitioner concentration in the MS in Nursing program. The focus of this course is on the growth and development of former preterm and critically ill infants and the impact of morbidity that originated in the newborn period. Differential diagnosis and treatment plans will be directed towards achieving the highest level of wellness obtainable.</td>
<td>GR LE</td>
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<tr>
<td>ME2700</td>
<td>2700</td>
<td>Struck&amp;Prop of Mat. I</td>
<td>This course covers the fundamentals of the structures of solids and their effect on the mechanical properties of metals, polymers, and ceramics. Additional topics include phase diagrams and heat treatment. An overview of engineering materials is also presented. Department Managed Prerequisite(s): Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level PHY 2400 Minimum Grade of D.&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level PHY 2400 Minimum Grade of D.&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level PHY 2400 Minimum Grade of D.&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level PHY 2400 Minimum Grade of D.</td>
<td>UG LE</td>
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<tr>
<td>SPN3260</td>
<td>3260</td>
<td>Business Spanish II</td>
<td>Study of the business culture behind Spanish. Development of the communication skills and intercultural understanding. Use of Spanish in international business. Integrated Writing course.</td>
<td>UG LE</td>
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<tr>
<td>EC2900</td>
<td>2900</td>
<td>Global Econ Bus Social</td>
<td>Analyzes controversy and diversity of opinions regarding global economic, business, and social issues, including social security, health care, poverty, labor discrimination, pollution, and business ethics. Integrated Writing course.</td>
<td>UG LE</td>
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<tr>
<td>PSY2150</td>
<td>2150</td>
<td>Psy Principles in Films</td>
<td>Studies principles of psychology and their application through commercial films.</td>
<td>UG LE</td>
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<tr>
<td>SAA7650</td>
<td>7650</td>
<td>Internship I in SAHE</td>
<td>This field-based experience provides students with practice and supervision in areas of interest in SAHE.</td>
<td>GR IN</td>
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<tr>
<td>SOC3200</td>
<td>3200</td>
<td>Explore Social Problems</td>
<td>Focuses on specific social problems. Topics vary.</td>
<td>UG LE</td>
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<tr>
<td>KNH1060B</td>
<td>1060B</td>
<td>Backpacking</td>
<td>Fundamental skills and knowledge of Backpacking. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG LB</td>
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<tr>
<td>BMS7136</td>
<td>7136</td>
<td>Inst for Radiation Msr</td>
<td>Theoretical and practical consideration of radiation detectors and associated instrumentation, with focus on measurement of gamma radiation in the diagnostic energy range. Identification of metrics used to characterize system performance; quality assurance of imaging components.</td>
<td>GR LL</td>
<td>3</td>
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<tr>
<td>SLI4800</td>
<td>4800</td>
<td>Advanced Interpreting II</td>
<td>Continues enhancement of ability to produce an equivalent message, working between ASL and English. Interpreting culturally rich language will be investigated, and expanded to idiomatic expressions, higher registers, and working segments of discourse.</td>
<td>UG LE</td>
<td>4</td>
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<tr>
<td>ECO5690</td>
<td>5690</td>
<td>Insurance Basics Teachrs</td>
<td>This course is designed for teachers with minimal knowledge of insurance principals and to provide middle and high school teachers with sufficient knowledge to teach basic property and casualty insurance principals. Topics include property damage, home owners insurance, and term life insurance. This course has a fee that is non-refundable once the term begins.</td>
<td>GR LL</td>
<td>3</td>
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<tr>
<td>SOC6640</td>
<td>6640</td>
<td>Gender and Sexuality</td>
<td>Explores gender and sexuality constructions from a global perspective. Topics include the effects of globalization, colonization and imperialism, as well as transnational feminist and LGBTQIA activism. Department Managed Prerequisite(s): Undergraduate level SOC 3610 Minimum Grade of D or Undergraduate level SOC 4600 Minimum Grade of D or Undergraduate level WMS 2000 Minimum Grade of D.</td>
<td>GR LE</td>
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<tr>
<td>PLS4490</td>
<td>4490</td>
<td>Gender Violence Inl Pol</td>
<td>Cross-cultural examination of gender violence. Considers the range of violence, its sources, and solutions. Topics include domestic abuse, rape, female genital surgeries, prostitution, and reproductive rights. Integrated Writing course.</td>
<td>UG LE</td>
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<tr>
<td>EES3460</td>
<td>3460</td>
<td>Concept Earth Sci II Educators</td>
<td>Processes that impact the Earth system such as volcanic eruptions, global climate change and ice ages, and the resulting interactions between air, land, water and life in the Earth system.</td>
<td>UG LL</td>
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<tr>
<td>PSY6230</td>
<td>6230</td>
<td>Problem Solving Cap</td>
<td>Writing and oral communication intensive seminar integrating knowledge on problem solving and reasoning.</td>
<td>GR SE</td>
<td>3</td>
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<tr>
<td>PSY6120</td>
<td>6120</td>
<td>Applied Sports Psy Cap</td>
<td>Communication-intensive seminar integrating knowledge within Sports Psychology.</td>
<td>GR SE</td>
<td>3</td>
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<tr>
<td>BIO1150L</td>
<td>1150L</td>
<td>Organisms &amp; Ecosystems Lab</td>
<td>Required laboratory for BIO 1150.</td>
<td>UG LB</td>
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<tr>
<td>NUR2300C</td>
<td>2300C</td>
<td>Nursing Fundamentals II Clinic</td>
<td>Clinical and lab experience for NUR 2300</td>
<td>UG CL</td>
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<tr>
<td>PHY2400R</td>
<td>2400R</td>
<td>General Physics I Recitation</td>
<td>Required recitation for PHY 2400.</td>
<td>UG RE</td>
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<tr>
<td>NUR6903</td>
<td>6903</td>
<td>School Nursing Practicum</td>
<td>Within the school environment, the school nurse student will focus on meeting the needs of the entire school community by applying and demonstrating the corresponding competencies which meet the standards of professional school nurse practice. School nurse students will apply strategies that support academic success of the school student through health promotion, health management, evidence based practice, care coordination, quality student centered care, and specific population health efforts.</td>
<td>GR PR</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>SOC3110 3110</td>
<td>Sociology of Religion</td>
<td>SOC Sociology</td>
<td>3</td>
<td>Explores the influence that various religions have on society and, in turn, on the effect of social structure and culture on religion. Attention given to American religiosity as well as religion in other cultures.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>IHE7020 7020</td>
<td>Industrial &amp; Hum Fac Engr</td>
<td>IHE Industrial &amp; Hum Fac Engr</td>
<td>3</td>
<td>Explores students to the design of systems and tools for the analysis of complex technological systems. &lt;b&gt;Department Managed Prerequisite(s): Graduate level IHE 6150 Minimum Grade of C&lt;/b&gt;</td>
<td>GR LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>HST4900 4900</td>
<td>History</td>
<td>HST History</td>
<td>3</td>
<td>Tools and techniques for preparing a significant research paper in conformity with contemporary standards. Integrated Writing course.</td>
<td>UG SE Seminar</td>
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<tr>
<td>Fall 2022</td>
<td>EE3260 3260</td>
<td>Electrical Engineering</td>
<td>EE Electrical Engineering</td>
<td>3</td>
<td>Practical introduction to random events, characterization of stochastic signals, first and second order moment descriptions of random processes, and input/output descriptions of random signals and noise in linear systems.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>URS4280 4280</td>
<td>Urban Affairs</td>
<td>URS Urban Affairs</td>
<td>3</td>
<td>Examines bureaucratic and scientific management theory, as well as human relations and system theory, to understand the structure, functions, culture and behavior of criminal justice organizations. Examines motivation, group behavior and communication and leadership with such organizations.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>FIN4780 4780</td>
<td>Finance</td>
<td>FIN Finance</td>
<td>1</td>
<td>Research in finance for fulfillment of the Honors program project requirement.</td>
<td>UG IS Indepen 1 Study</td>
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<tr>
<td>Fall 2022</td>
<td>CEG4500 4500</td>
<td>Computer Engineering</td>
<td>CEG Computer Engineering</td>
<td>3</td>
<td>Raster graphics algorithms, geometric primitives and their attributes, clipping, antialiasing, geometric transformations, structures and hierarchical models, input devices, and interactive techniques. Students develop interrelated programs to design a three-dimensional hierarchical model, manipulate, and view it.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>HPR3030 3030</td>
<td>Health Phy Educ &amp; Rec</td>
<td>HPR Health Phy Educ &amp; Rec</td>
<td>3</td>
<td>Models best teaching practices in net/wall games such as badminton, tennis and volleyball. Students are required to demonstrate skill proficiency.</td>
<td>UG LL Lecture/Lab Combinatio n</td>
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<tr>
<td>Fall 2022</td>
<td>MGT4950 4950</td>
<td>Management</td>
<td>MGT Management</td>
<td>3</td>
<td>Address timely and important issues for human resource professionals. This course requires extensive team work, effective communication through writing and presentations, and a high degree of professionalism. Integrated Writing course within the Human Resource Management Major.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>CNE801 801</td>
<td>Counseling</td>
<td>CNL Counseling</td>
<td>3</td>
<td>Overview of issues associated with trauma, stress, crisis, and disaster experiences and the importance of differentiating their varying characteristics. Emphasis on knowledge and skills of different types of interventions.</td>
<td>GR LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>MTH4510 4510</td>
<td>Modern Algebra I</td>
<td>MTH Mathematics</td>
<td>3</td>
<td>Elementary number theory: divisibility, prime numbers, congruences, quadratic reciprocity, and number theoretic functions. Introduction to rings, integral domains, and fields.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PLS6740 6740</td>
<td>Political Science</td>
<td>PLS Political Science</td>
<td>3</td>
<td>Examines the political behavior of women in terrorism, including an analysis of the roles females play in different groups, and differing theories to explain recent changes in the field.</td>
<td>GR SE Seminar</td>
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<tr>
<td>Fall 2022</td>
<td>SLI4560 4560</td>
<td>Sign Language Interpreting</td>
<td>SLI Sign Language Interpreting</td>
<td>3</td>
<td>Introduces the American legal system and interpreting for the Deaf in that setting. Arrest, Miranda Warning, questioning, and court settings will be discussed including ethical issues and interpretation practice.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>CS5250 5250</td>
<td>Computer Science</td>
<td>CS Computer Science</td>
<td>3</td>
<td>Introduction to the representation, manipulation, and analysis of large datasets from a user's perspective. Topics include data filtering, clustering, classification, and data mining. The basic principles behind each technique are first introduced and then numerical experiments demonstrate their applicability. Standard software and programming languages are utilized.&lt;b&gt; Department Managed Prerequisite(s): (Undergraduate level MTH 2300 Minimum Grade of D or Undergraduate level MTH 2280 Minimum Grade of D or Undergraduate level MTH 2240 Minimum Grade of D) and (Undergraduate level CS 1160 Minimum Grade of D or Undergraduate level CS 1180 Minimum Grade of D or Undergraduate level CEG 2170 Minimum Grade of D) and (Undergraduate level STT 1600 Minimum Grade of D or Undergraduate level STT 3600 Minimum Grade of D or Undergraduate level ISE 2211 Minimum Grade of D or Undergraduate level EE 3260 Minimum Grade of D)&lt;/b&gt;</td>
<td>GR LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>REL3470 3470</td>
<td>Religion</td>
<td>REL Religion</td>
<td>3</td>
<td>Survey of the history, doctrines, and practices of Zen Buddhism in China, Japan, and the West. Focus on important contributions and innovations of seminal figures. Particular attention also devoted to Zen meditative practices.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PHL3410 3410</td>
<td>Philosophy</td>
<td>PHL Philosophy</td>
<td>3</td>
<td>Exploration of philosophical theories of art. Students will critically examine their aesthetic and philosophical languages and develop a richer sense of why we value the arts. Integrated Writing course.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>AFS3890 3890</td>
<td>Afr /Afr Amer Studies</td>
<td>AFS Afr /Afr Amer Studies</td>
<td>3</td>
<td>Examines variable topics that pertain to the African African American experience. Integrated Writing course.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PSY3410 3410</td>
<td>Psychology</td>
<td>PSY Psychology</td>
<td>3</td>
<td>Survey of psychological theories and research used in the study of human development to understand development from conception to death. Emphasis is placed on normal growth and milestones achieved in the physical, cognitive, social and emotional systems.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PHY1120R 1120R</td>
<td>Physics</td>
<td>PHY Physics</td>
<td>0</td>
<td>Required recitation for PHY 1120.</td>
<td>UG RE Recitation</td>
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<tr>
<td>Fall 2022</td>
<td>BMB7630 7630</td>
<td>Biochem &amp; Molecular Biology</td>
<td>BMB Biochem &amp; Molecular Biology</td>
<td>3</td>
<td>Also listed as BMS 7630 and BME 7630. Discusses the applications of NMR spectroscopy to the study of tissue metabolism in vivo. The fundamental theory of magnetic resonance imaging, with a survey of clinical applications, is also presented.</td>
<td>GR LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>MUS329OL 329OL</td>
<td>Music</td>
<td>MUS Music</td>
<td>1</td>
<td>Builds upon the previously gained conducting experiences and knowledge.</td>
<td>UG LL Lecture/Lab Combinatio n</td>
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<td>Code</td>
<td>Title</td>
<td>Division</td>
<td>Credits</td>
<td>Description</td>
<td>Type</td>
<td>Department</td>
<td>Lecture/Lab Combinations</td>
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<tr>
<td>EE7440</td>
<td>RF Power Amplifiers</td>
<td>EE</td>
<td>3</td>
<td>The course covers the fundamental theory of radio frequency (RF) power amplifiers and their applications in wireless communications, radars, and radio and TV broadcasting. RF power passive and active devices are discussed.</td>
<td>Lecture</td>
<td>Electrical</td>
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<tr>
<td>PPH4990</td>
<td>n in Population &amp; Public Health</td>
<td>PPH</td>
<td>1</td>
<td>Undergraduate biomedical research and seminar. Students will participate in hands-on research as well as reading primary literature, presenting scientific talks, and exploring the social and ethical implications of scientific research.</td>
<td>Lecture</td>
<td>Public Health</td>
<td>Lab/Study</td>
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<tr>
<td>MUS6860</td>
<td>Counterpoint</td>
<td>MUS</td>
<td>3</td>
<td>Introduction to contrapuntal techniques. Exercises in species counterpoint, imitation and fugal devices. Analysis of examples from Renaissance to the 20th century.</td>
<td>Lecture</td>
<td>Music</td>
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<tr>
<td>NUR2400C</td>
<td>Intro Clin Nursing</td>
<td>NUR</td>
<td>0</td>
<td>Required clinical for NUR 2400.</td>
<td>Clinical</td>
<td>Nursing</td>
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<tr>
<td>STT4310</td>
<td>Stat Meth Clinical Trial</td>
<td>STT</td>
<td>3</td>
<td>Basic clinical design methodology, types of clinical trials, analysis of trial data, and statistical issues that commonly arise in clinical trials.</td>
<td>Lecture</td>
<td>Statistics</td>
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<tr>
<td>CHI1010</td>
<td>Beginning Chinese</td>
<td>CHI</td>
<td>3</td>
<td>Communicative introduction to Chinese. Study of the vocabulary and structure of the Chinese language; practice in speaking, listening, reading, and writing.</td>
<td>Lecture</td>
<td>Chinese</td>
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<tr>
<td>BIO6470</td>
<td>Pop &amp; Comm Ecology</td>
<td>BIO</td>
<td>3</td>
<td>Derivation and use of deterministic and stochastic population models, methods of analyzing community structure, composition, and dynamics.</td>
<td>Lecture</td>
<td>Biology</td>
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<tr>
<td>ME4770</td>
<td>Mech. Behavior of Metals</td>
<td>ME</td>
<td>3</td>
<td>Crystal plasticity and single crystal behavior. Introduction to dislocation theory. Strengthening mechanisms and polycrystalline behavior. Introduction to fracture, fatigue, and creep of materials. Department Managed Prerequisite(s): Undergraduate level ME 2700 Minimum Grade of C and Undergraduate level ME 5120 Minimum Grade of D.&lt;b&gt;</td>
<td>Lecture</td>
<td>Mechanical Engr</td>
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<tr>
<td>NUR6902</td>
<td>Child/Adol Hlth Schools</td>
<td>NUR</td>
<td>3</td>
<td>Roles and responsibilities of the school nurse in managing care for children and adolescents with health needs in the school setting.</td>
<td>Lecture</td>
<td>Nursing</td>
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<tr>
<td>MUE4930</td>
<td>University Men's Chorale</td>
<td>MUE</td>
<td>1</td>
<td>Development of advanced choral and vocal skills. Emphasis on advanced choral literature from a wide range of historical and compositional styles. Audition required.</td>
<td>Lecture</td>
<td>Music</td>
<td>Lab/Study</td>
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<tr>
<td>EC4260</td>
<td>Econ Poverty &amp; Discrimination</td>
<td>EC</td>
<td>3</td>
<td>Analysis of economic causes, effects, and cures for poverty and discrimination. Study of trends, economic explanations, and current programs and legislation.</td>
<td>Lecture</td>
<td>Economics</td>
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<tr>
<td>ED8800</td>
<td>Theor Issue Lifespan Dev</td>
<td>ED</td>
<td>3</td>
<td>Focuses on theoretical views of lifespan human development, mechanisms underpinning development, and the influence of nature and nurture in human development.</td>
<td>Lecture</td>
<td>Education</td>
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<tr>
<td>EE4550</td>
<td>IC Hker Secrty &amp; Trust</td>
<td>EE</td>
<td>3</td>
<td>Analyze hardware security/trust and be able to implement various countermeasures to improve trust for hardware IC systems. Topics include IC design flow/lifecycle, trust issues at each stage of the IC lifecycle, attack methodologies that threaten HW IC systems, countermeasures to improve trust for HW IC systems, improving Trust for both ASIC and FPGA based systems.</td>
<td>Lecture</td>
<td>Electrical Engineering</td>
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<tr>
<td>ME3120</td>
<td>Mechanics of Materials</td>
<td>ME</td>
<td>3</td>
<td>Introduction to stress and deformation in deformable solids. Topics include axial loading, torsion, pure bending, shear stresses in beams, design of beams under transverse loading, thin-wall pressure vessels, transformation of stress, stresses under combined loadings, deflection of beams and buckling. Department Managed Prerequisite(s): Undergraduate level ME 2120 Minimum Grade of C and (Undergraduate level ME 1020 Minimum Grade of D or Undergraduate level DEG 2170 Minimum Grade of D)&lt;b&gt;</td>
<td>Lecture</td>
<td>Mechanical Engr</td>
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<tr>
<td>URS4950</td>
<td>Urban Affairs Internship</td>
<td>URS</td>
<td>3</td>
<td>Senior-level internship in the offices of a local public agency.</td>
<td>Internship</td>
<td>Urban Affairs</td>
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<tr>
<td>ECT240</td>
<td>Develmnt of Ec Thought</td>
<td>EC</td>
<td>3</td>
<td>Historical development of economic thought and philosophies. Department Managed Prerequisite(s): Graduate level EC 5000 Minimum Grade of D and Graduate level EC 5010 Minimum Grade of D and Graduate level EC 5210 Minimum Grade of D&lt;b&gt;</td>
<td>Lecture</td>
<td>Economics</td>
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<tr>
<td>TH1440</td>
<td>Acting I</td>
<td>TH</td>
<td>3</td>
<td>Introduction to fundamental aspects of acting, including imagination, personalization, pursuit of the objective, use of tactical choices and beginning use of text with introduction to script analysis.</td>
<td>Lecture</td>
<td>Theatre</td>
<td>Lab/Study</td>
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<tr>
<td>EC7820</td>
<td>Research in Economics II</td>
<td>EC</td>
<td>1</td>
<td>Titles vary. Intensive reading or research in selected fields of economics. Department Managed Prerequisite(s): Graduate level EC 5090 Minimum Grade of D and Graduate level EC 5100 Minimum Grade of D and Graduate level EC 5210 Minimum Grade of D and Graduate level EC 5220 Minimum Grade of D&lt;br&gt;</td>
<td>Independent</td>
<td>Economics</td>
<td>Study/Project</td>
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<tr>
<td>MUS2270</td>
<td>Woodwind Pedagogy Research Methods</td>
<td>MUS</td>
<td>1</td>
<td>The study of materials, equipment, and class instruction in playing and teaching woodwind instruments in public school.</td>
<td>Lecture</td>
<td>Music</td>
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<tr>
<td>PSY3020L</td>
<td>Research Methods Pay II Lab</td>
<td>PSY</td>
<td>0</td>
<td>Required laboratory for PSY 3020.</td>
<td>Lab</td>
<td>Psychology</td>
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<tr>
<td>ATH3910</td>
<td>Internship-Anthropology</td>
<td>ATH</td>
<td>3</td>
<td>Directed and supervised experience in an employment setting relevant to one of the major subdisciplines in anthropology. Must be prearranged with student's faculty advisor, a minimum GPA of 3.0, and Junior or Senior standing required.</td>
<td>Internship</td>
<td>Anthropology</td>
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<tr>
<td>Fall 2022</td>
<td>Course Code</td>
<td>Course Name</td>
<td>Division</td>
<td>Course Title</td>
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<tr>
<td>EE5450L</td>
<td>5450L Electromagnetics Lab</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>Laboratory supporting EE 5450. Students will experience hands on learning in lab environment.</td>
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<tr>
<td>PLS3700</td>
<td>3700 International Theory</td>
<td>PLS</td>
<td>Political Science</td>
<td>3 Inclusive classical and contemporary contending theoretical perspectives in international relations and their critique. Integrated Writing course.</td>
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<tr>
<td>TH4410</td>
<td>4410 Movement IV</td>
<td>TH</td>
<td>Theatre</td>
<td>2 Training in three weapons styles in preparation for the Skills Proficiency Test at the end of the semester. Adjudicator from Society of American Fight Directors evaluates rehearsed and choreographed fight scenes performed publicly by students.</td>
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<tr>
<td>EE7560</td>
<td>7560 Advanced Robotics</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>Detailed study of the dynamics and control of robotic systems and robot programming languages and systems. Material covered includes rigid-body dynamics; linear, nonlinear, adaptive, and force control of manipulators; and robot programming languages. Sensors, low-level and higher level vision techniques, task planning including obstacle avoidance and artificial intelligence and expert systems as applied to robotic systems. Department Managed Prerequisite(s): (Graduate level EE 6560 Minimum Grade of D and Graduate level EE 6560L Minimum Grade of D) or (Undergraduate level EE 4560 Minimum Grade of D and Undergraduate level EE 4560L Minimum Grade of D)</td>
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<tr>
<td>AED6780</td>
<td>6780 MA: Visual Arts: C&amp;M II</td>
<td>AED</td>
<td>Art Education</td>
<td>3 Theoretical / practical methods of teaching multi-age visual arts. Integration of artistic and educational ideas into creative programs as a continuum of issues/skills for the developing art educator with mentorship by master teachers.</td>
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<tr>
<td>BMB2500</td>
<td>2500 Human Nutrition</td>
<td>BMB</td>
<td>Biochem &amp; Molecular Biology</td>
<td>3 Nutrition as an integrated science emphasizing biochemical and physiological principles. Topics include nutritional energetics, specific nutrients, and nutrition and physiology. Relation of basic concepts to clinical situations and to nutritional management of specific disease conditions.</td>
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<tr>
<td>TH1070</td>
<td>1070 Music Theory Actors II</td>
<td>TH</td>
<td>Theatre</td>
<td>2 Develops student understanding of rhythm, melody, sight-singing, and musical theatre piano in a group class.</td>
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<tr>
<td>ECO5230</td>
<td>5230 Stretch Your Buck</td>
<td>ECO</td>
<td>Center for Economic Educ</td>
<td>2 Financial planning and personal finance topics geared toward the family, with emphasis on aspects teachable in the K-12 classroom. This course has a fee that is non-refundable once the term begins.</td>
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<tr>
<td>CHM6020L</td>
<td>6020L Adv Environ Chm &amp; Analy Lab</td>
<td>CHM</td>
<td>Chemistry</td>
<td>Required laboratory for CHM 6020.</td>
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<tr>
<td>FRS830</td>
<td>5830 Applied Elementary Lang</td>
<td>FR</td>
<td>French</td>
<td>1 Graduate students assist FR 1010 or FR 1020 course instructors in conducting class. Taught in French. Department Managed Prerequisite(s): Graduate level FR 5110 Minimum Grade of D or Graduate level FR 5120 Minimum Grade of D or Graduate level FR 5220 Minimum Grade of D or Graduate level FR 5210 Minimum Grade of D</td>
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<tr>
<td>APS3000</td>
<td>3000 APS Technologies</td>
<td>APS</td>
<td>Applied Studies</td>
<td>3 This course introduces technologies relating to the business environment. The main focus is on business and technical applications of software, operating systems, communication and networks, computer security and safety, ethics, privacy and other current topics.</td>
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<tr>
<td>TH2200</td>
<td>2200 Stagecraft</td>
<td>TH</td>
<td>Theatre</td>
<td>3 In-depth study of scenery technology and its techniques. Advanced scenery construction and materials; metalworking; motorized scenery; stage rigging and its equipment; and First Aid and CPR.</td>
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<tr>
<td>EGR4980R</td>
<td>4980R Special Topics in EGR Rec</td>
<td>EGR</td>
<td>Engineering</td>
<td>Required recitation for EGR 4980.</td>
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<tr>
<td>BME1950</td>
<td>1950 Undergrad Resrch BME I</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>Undergraduate research in biomedical engineering. Topics vary.</td>
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<tr>
<td>PSY4420</td>
<td>4420 Organizational Pay Cap</td>
<td>PSY</td>
<td>Psychology</td>
<td>3 Communication-intensive seminar integrating knowledge on organizational psychology. Organizational psychology focuses on how individuals function within an organization. Topics include job satisfaction, group dynamics, and motivation. Integrated Writing course.</td>
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<tr>
<td>ED6080</td>
<td>6080 Phonics and Word Study</td>
<td>ED</td>
<td>Education</td>
<td>3 In-depth analysis of how people learn the printed word, and how to assess that knowledge with appropriate phonics and phonics-related assessment and materials. Students will apply knowledge through phonics lesson design, delivery and analysis.</td>
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<tr>
<td>EE2020</td>
<td>2020 Intro to Mechatronics</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>3 Learn to perform system level design integrated systems, program an embedded microcontroller, analyze and design basic sensor interface circuits, analyze and design drive circuits, and develop simple programs that control actuators.</td>
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<tr>
<td>BIO4720</td>
<td>4720 Ornithology</td>
<td>BIO</td>
<td>Biology</td>
<td>4 Introduction to the world of birds. Covers a range of scales from genetics that underlie evolution and phylogeny to global ecology and conservation. Students are introduced to diversity, form and function, physiology, behavior, life history, ecology and conservation of birds. Lectures are paired with labs that add hands on experience in bird research. We will work on bird identification by sound and sight.</td>
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This is a general introduction to the ethical and legal foundations underlying public health in the United States and internationally. The goal is to equip students with the basic conceptual tools they will need as professionals, whether they work in medicine, law, or public service. The readings offer a range of perspectives each week, and are essential background for Team-Based Learning activities and discussions. Written assignments include two short research papers and a final exam.

This course will cover topics in the area of high-frequency power magnetic components, such as inductors and transformers. Concepts that will be studied: such as complex permeability, eddy currents, skin effect, proximity effect, winding losses, Dowells equation, core losses, self-capacitance, area-product method, core-geometry method, integrated inductors. Optimization of conductor dimensions will be performed. Design procedures of high-frequency inductors and transformers will be presented.

This course explores various coaching models used for developing talent and improving employee performance. Students will also learn how to design and implement formal and informal mentoring programs in organizations.

To provide students with explicit (textbook) and tacit (experiential) knowledge of behavioral health service provision in an integrated primary care clinic serving a low-income population of patients. The course will be a combination of text-book readings and discussions as well as a laboratory component. The lab component will involve instructor supervision of student’s shadowing and observation of primary care providers, conducting initial consultation appointments, practicing behavioral and cognitive interventions, and providing feedback to referring providers.

Understanding the behavior of people within a work setting and the development of management competencies.

Identification, handling, and containment of potentially hazardous biological materials, including microorganisms and recombinant DNA.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Department</th>
<th>Type</th>
<th>Component</th>
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</thead>
<tbody>
<tr>
<td>MKT7700</td>
<td>International Marketing</td>
<td>3</td>
<td>Introduces the concepts and language of international marketing and examines institutional, behavioral, and managerial aspects of a cross section of national marketing systems and multinational organization operations.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>BME4703R</td>
<td>Medical Imaging Recitation</td>
<td>3</td>
<td>A recitation section that focuses on problem solving skills that apply to medical imaging.</td>
<td>UG</td>
<td>RE</td>
<td>Recitation</td>
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<tr>
<td>MIL2022</td>
<td>Found of Tacl Ldrship Lab</td>
<td>3</td>
<td>Introduction into squad member responsibilities, problems, and training exercises. Each lab is cadet-led and cadet-supervised. Mandatory participation in weekly two-hour leadership lab, three physical fitness classes, and weekend training exercises.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>CHM4350</td>
<td>Instrumental Analysis</td>
<td>3</td>
<td>Theory and practice of modern chemical instrumentation. Elementary electronics, spectrophotometry, atomic absorption, electro-chemical techniques, chromatography, and other instrumental techniques.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>EE6730L</td>
<td>Wireless Comm Lab</td>
<td>1</td>
<td>Required laboratory for EE 6730.</td>
<td>GR</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>ART3040</td>
<td>Studies in Art History</td>
<td>3</td>
<td>Problems and approaches to art and art history. Includes cross-period and interdisciplinary studies. Integrated Writing course. Required for Undergraduate level ART 2110 Minimum Grade of D and Undergraduate level ART 2120 Minimum Grade of D.&lt;br&gt;&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level ART 2110 Minimum Grade of D and Undergraduate level ART 2120 Minimum Grade of D.&lt;br&gt;&lt;br&gt;Recommended for students with no prior knowledge of art history.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>BIO3700</td>
<td>Bioethics</td>
<td>3</td>
<td>Provides an opportunity to learn/discuss contemporary issues in biology, medicine, and health; recognize, compare, contrast, approach bioethical situations and problems; acquire and separate factual knowledge from opinion; and demonstrate critical thinking. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>PSY9020</td>
<td>9020 Manual Control</td>
<td>3</td>
<td>Description of human control processes and their models. Analyses of human skills and skill typology.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>MP4990</td>
<td>Ind Study in Motion Pict</td>
<td>1</td>
<td>Independent study in motion picture history, theory, criticism, and practice.</td>
<td>UG</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>M&amp;I4750</td>
<td>Pathogenic Mechanisms</td>
<td>4</td>
<td>Human-microbial pathogen interactions, emphasizing the molecular basis of the pathogenic mechanisms. Complexities of interactions between microbes and their hosts.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>EES6060</td>
<td>Earth Sys for Educators</td>
<td>3.5</td>
<td>The course investigates the processes that impart the Earth system such as volcanic eruptions, global climate change and ice ages and the resulting interactions between air, land, water and life in the Earth system.</td>
<td>GR</td>
<td>LL</td>
<td>Lecture/Lab Combination</td>
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<tr>
<td>BIO8000</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>Topics vary but will include extensive discussion of primary, research literature.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>ME4160</td>
<td>Advanced CAD</td>
<td>3</td>
<td>Advanced course in computer-aided design reinforce and augments the fundamentals of technical blue-print reading, technical sketching, mechanical drawing, computer-aided design (CAD) of parts, assemblies, and engineering drawings, modeling and prototyping, and computer-assisted analysis.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>ANT8510</td>
<td>Biomedical Review Article</td>
<td>2</td>
<td>Graduate students will select a biomedical topic, critically analyze the scientific literature associated with it, and write a scientific review article on that topic.</td>
<td>GR</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>KNH1360B</td>
<td>Karate</td>
<td>1</td>
<td>Fundamental skills and knowledge of Karate. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
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<tr>
<td>PHY2400</td>
<td>General Physics I</td>
<td>4</td>
<td>Introductory survey of mechanics for science and engineering students. Uses of interpreting physical phenomena. Topics include vectors, kinematics, dynamics, energy, momentum, rotation, oscillation and thermodynamics.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>BIO3250</td>
<td>Basic Cell Culture Tech</td>
<td>3</td>
<td>Eukaryotic cell culture and basic techniques used to culture eukaryotic cells. Basic cell culture laboratory setup and equipment, propagation and maintenance of cell culture lines, the introduction of new genes into cell lines, and cellular staining. Students will work both in groups and independently.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>BMS8750</td>
<td>Neuroscience &amp; Physiology</td>
<td>3</td>
<td>In-depth coverage of cellular neuroscience with an emphasis on physiological concepts. Subjects include nervous system development, generation of ion gradients, ionic basis of the action potential, synaptic transmission and ion channels.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>KNH1720B</td>
<td>Tennis</td>
<td>1</td>
<td>Fundamental skills and knowledge of Tennis. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
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<tr>
<td>CS3260</td>
<td>CS Numerical Methods</td>
<td>3</td>
<td>Introduction to numerical analysis and scientific computing. Topics include Numerical solution of nonlinear equations; Linear system of equations; Matrix eigenvalue problems; Interpolation and least squares; Numerical differentiation and integration; Numerical methods for differential equations.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>BIO4760</td>
<td>Hum Parasites &amp; Mycology</td>
<td>3</td>
<td>Surveys parasites of humans worldwide with emphasis on those that occur in North and Central America and Europe. Develops a working knowledge of the anatomy, life cycle and epidemiology of each parasite covered. Compares pathogenic and opportunistic fungal infections. The epidemiology, transmission, symptoms of human mycoses and identification of pathogenic fungal infections and the available treatments.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>GEO4890</td>
<td>4890</td>
<td>Special Topics</td>
<td>GEO</td>
<td>Geography</td>
<td>1</td>
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<td>Fall 2022</td>
<td>ART4060</td>
<td>4060</td>
<td>Studies in Painting</td>
<td>ART</td>
<td>Art</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>SCM4770</td>
<td>4770</td>
<td>Special Studies in SCM</td>
<td>SCM</td>
<td>Supply Chain Management</td>
<td>1</td>
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<tr>
<td>Fall 2022</td>
<td>URS7000</td>
<td>7000</td>
<td>Foundations/Tools of PA</td>
<td>URS</td>
<td>Urban Affairs</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>HPR2120</td>
<td>2120</td>
<td>Adapted Phys Education</td>
<td>HPR</td>
<td>Health Phys Educ &amp; Recreation</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>EDS6020</td>
<td>6020</td>
<td>Lang Dev/Syst Soc Skl</td>
<td>EDS</td>
<td>Education - Special Education</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>PSY2120</td>
<td>2120</td>
<td>Human Factors and Design</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>PLS4740</td>
<td>4740</td>
<td>Politics Women Terrorist</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
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<td>Fall 2022</td>
<td>EDL9880</td>
<td>9880</td>
<td>Research &amp; Educ Leader Ohio</td>
<td>EDL</td>
<td>Educational Leadership</td>
<td>3</td>
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<td>Fall 2022</td>
<td>KNH1500</td>
<td>1500</td>
<td>Scuba &amp; Skin; Open Water</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>2</td>
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<tr>
<td>Fall 2022</td>
<td>PSY8740</td>
<td>8740</td>
<td>Teams in Organizations</td>
<td>PSY</td>
<td>Psychology</td>
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<tr>
<td>Fall 2022</td>
<td>MLB4320</td>
<td>4320</td>
<td>Advanced Hematology</td>
<td>MLB</td>
<td>Medical Laboratory Science</td>
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<td>Fall 2022</td>
<td>EC4780</td>
<td>4780</td>
<td>Hon: Ind Study Economics</td>
<td>EC</td>
<td>Economics</td>
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<td>Fall 2022</td>
<td>SOC3620</td>
<td>3620</td>
<td>Race and Ethnicity</td>
<td>SOC</td>
<td>Sociology</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>PHY3150</td>
<td>3150</td>
<td>Physics Instrumentation</td>
<td>PHY</td>
<td>Physics</td>
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<td>PSY3330</td>
<td>3330</td>
<td>Personality Research Mth</td>
<td>PSY</td>
<td>Psychology</td>
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<td>Fall 2022</td>
<td>PLS3230</td>
<td>3230</td>
<td>Government of Ohio</td>
<td>PLS</td>
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<td>PHY4830</td>
<td>4830</td>
<td>Statistical Mechanics</td>
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<td>Physics</td>
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<td>EES2510</td>
<td>2510</td>
<td>Earth Systems</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
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<td>ISE4400</td>
<td>4400</td>
<td>Engineering Economy</td>
<td>ISE</td>
<td>Industrial &amp; Systems Engr</td>
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<td>HST4450</td>
<td>4450</td>
<td>Middle Eastern History</td>
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<td>MBA5200</td>
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<td>Survey of Economics</td>
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<td>Fall 2022</td>
<td>HST7700</td>
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<td>Research in Local Hist</td>
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<td>Fall 2022</td>
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<td>Time</td>
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<td>MUS6480</td>
<td>6480</td>
<td>Classic &amp; Romantic Music</td>
<td>MUS Music</td>
<td>3</td>
<td>UG</td>
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<td>ME4350</td>
<td>4350</td>
<td>Mechanics of Viscous Fluids</td>
<td>ME Mechanical and Materials Engr</td>
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<td>PPH7991</td>
<td>7991</td>
<td>Public Hlth Integrative Ln Exp</td>
<td>PPH Population &amp; Public Health</td>
<td>3</td>
<td>IS</td>
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<td>MUS4460</td>
<td>4460</td>
<td>Medieval &amp; Renaissance Music</td>
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<td>3</td>
<td>UG</td>
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<td>PSI8410</td>
<td>8410</td>
<td>Group Psychotherapy</td>
<td>PSI Professional Psychology</td>
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<td>Developmental Neuroscience</td>
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<td>EE6460L</td>
<td>6460L</td>
<td>Microwave Egr II Lab</td>
<td>EE Electrical Engineering</td>
<td>4</td>
<td>GR</td>
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<td>EE4330</td>
<td>4330</td>
<td>Microprocessor Based Embed Sys</td>
<td>EE Electrical Engineering</td>
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<tr>
<td>EES4530</td>
<td>4530</td>
<td>Diagenesis of Sed Rocks</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>4</td>
<td>UG</td>
<td>LL</td>
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<tr>
<td>ATH6650</td>
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<td>Field School Archaeology</td>
<td>ATH Anthropology</td>
<td>3</td>
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<td>ANT2120L</td>
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<td>Human Anatomy &amp; Phys II Lab</td>
<td>ANT Anatomy</td>
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<td>ED6230</td>
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<td>Recert - Reading Recovery Crisis</td>
<td>ED Education</td>
<td>3</td>
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<td>EDS6270</td>
<td>6270</td>
<td>Practicum: PK SP NEEDS</td>
<td>EDS Education - Special Education</td>
<td>2</td>
<td>GR</td>
<td>IN</td>
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<tr>
<td>SCM4250</td>
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<td>Supply Chain Info Mgnt</td>
<td>SCM Supply Chain Management</td>
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<td>UG</td>
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<td>PTX8100</td>
<td>8100</td>
<td>Med CHMR/RAD/NUC Defense</td>
<td>PTX Pharmacology/Toxicology</td>
<td>3</td>
<td>GR</td>
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<tr>
<td>ME3600L</td>
<td>3600L</td>
<td>Exp. Meas. and Instr. Lab</td>
<td>ME Mechanical and Materials Engr</td>
<td>0</td>
<td>UG</td>
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<td>KNH1540B</td>
<td>1540B</td>
<td>Self Defense for Women</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1</td>
<td>UG</td>
<td>LB</td>
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<tr>
<td>KNH2450</td>
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<td>Checkpoint 1</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1</td>
<td>UG</td>
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<td>EES4640</td>
<td>4640</td>
<td>Risk Assessment &amp; Comm</td>
<td>EES Earth &amp; Environmental Sciences</td>
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<td>LE</td>
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<td>EDL7820</td>
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<td>School Law</td>
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<td>Educational Leadership</td>
<td>Fall 2022</td>
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<td>ATR7400</td>
<td>5</td>
<td>Therapeutic Interventions</td>
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<td>Athletic Training</td>
<td>Fall 2022</td>
<td>LE Lecture</td>
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<td>GEO4980</td>
<td>4.5</td>
<td>Special Topics</td>
<td>GEO</td>
<td>Geography</td>
<td>Fall 2022</td>
<td>LE Lecture</td>
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<tr>
<td>NUR7550</td>
<td>6</td>
<td>Peds Minor Ill/Injuries</td>
<td>NUR</td>
<td>Nursing</td>
<td>Fall 2022</td>
<td>LE Lecture</td>
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<tr>
<td>SPN5990</td>
<td>1</td>
<td>Studies in Spanish</td>
<td>SPN</td>
<td>Spanish</td>
<td>Fall 2022</td>
<td>LE Lecture</td>
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<tr>
<td>ART4140</td>
<td>3</td>
<td>Adv Studies Baroque Art</td>
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<td>Fall 2022</td>
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<td>KNH1760A</td>
<td>1</td>
<td>Walk-Jog-Run</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>Fall 2022</td>
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<tr>
<td>TH2400</td>
<td>2</td>
<td>Movement II</td>
<td>TH</td>
<td>Theatre</td>
<td>Fall 2022</td>
<td>ST Studio</td>
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<tr>
<td>ED2750</td>
<td>1</td>
<td>Fid Exp II; Intro Ed Psy</td>
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<td>Education</td>
<td>Fall 2022</td>
<td>PR Practicum</td>
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<td>SLI4540</td>
<td>3</td>
<td>Mental Health</td>
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<td>Sign Language Interpreting</td>
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<td>DAN1010</td>
<td>1</td>
<td>Ballet I</td>
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<td>CS7900</td>
<td>1</td>
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<td>CS3840</td>
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<td>FR4650</td>
<td>3</td>
<td>French/Francophone Lit</td>
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<td>French</td>
<td>Fall 2022</td>
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<td>BMB4750</td>
<td>3</td>
<td>Molec Biology of Cancer</td>
<td>BMB</td>
<td>Biochem &amp; Molecular Biology</td>
<td>Fall 2022</td>
<td>LE Lecture</td>
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<td>MGT7720</td>
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<td>Fall 2022</td>
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<td>CHM5510L</td>
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<td>Chemistry</td>
<td>Fall 2022</td>
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<td>AFS6040</td>
<td>3</td>
<td>The African Diaspora</td>
<td>AFS</td>
<td>Afr /Af Amer Studies</td>
<td>Fall 2022</td>
<td>LE Lecture</td>
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<td>Glacial Landforms</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>Fall 2022</td>
<td>LL Lecture/Lab Combinations</td>
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<td>Adv ARA Syntax &amp; Grammar II</td>
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<td>Fall 2022</td>
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<td>Mix &amp; Pub Relations Spl</td>
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<td>Sports Management</td>
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<tr>
<td>MUE2970</td>
<td>Chorale</td>
<td>MUE</td>
<td>1</td>
<td>A choral ensemble for students who desire to explore the musical style of gospel music and its roots and various forms. Includes performances of a body of literature associated with the African American church to the university and surrounding communities.</td>
<td>UG</td>
<td>LL</td>
</tr>
<tr>
<td>KNH1480A</td>
<td>Rappelling</td>
<td>KNH</td>
<td>1</td>
<td>Fundamental skills and knowledge of Rappelling. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
</tr>
<tr>
<td>FAS2870</td>
<td>Practicum I</td>
<td>FAS</td>
<td>1</td>
<td>Individual supervised learning experiences and on-site seminars under the direction of instructor and site staff.</td>
<td>UG</td>
<td>PR</td>
</tr>
<tr>
<td>HST7860</td>
<td>Historic Preservation</td>
<td>HST</td>
<td>3</td>
<td>Overview of the history and practices of architectural preservation. Introduces students to the supervision of, or participation in, the preservation program of an historical organization.</td>
<td>GR</td>
<td>LE</td>
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<tr>
<td>ART3470</td>
<td>Beginning Painting</td>
<td>ART</td>
<td>3</td>
<td>Working from still life, figure, and landscape emphasizing the use of color and drawing in visual organization. This course has a fee that is non-refundable once the term begins.</td>
<td>UG</td>
<td>LB</td>
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<tr>
<td>ART3750</td>
<td>Armature/ Figure Modeling</td>
<td>ART</td>
<td>3</td>
<td>Development of personal concepts and aesthetic expression in sculpture. Emphasis on individualized approach to sculptural problems using armature structure and figure modeling. This course has a fee that is non-refundable once the term begins.</td>
<td>UG</td>
<td>LB</td>
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<tr>
<td>P&amp;N7220</td>
<td>Ion Channels</td>
<td>P&amp;N</td>
<td>3</td>
<td>This course explores the role of ion channels in a variety of cell types with an emphasis on both electrophysiological and biochemical methods for evaluation of channel function.</td>
<td>GR</td>
<td>LE</td>
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<tr>
<td>PLS6520</td>
<td>Intl Human Rights</td>
<td>PLS</td>
<td>3</td>
<td>Examines the role of human rights in international relations. Considers conflicting definitions of human rights and debates over policy by focusing on thematic issues and case studies.</td>
<td>GR</td>
<td>LE</td>
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<tr>
<td>ME7250</td>
<td>Advanced Dynamics</td>
<td>ME</td>
<td>3</td>
<td>Fundamentals of analytical dynamics from different perspectives applicable to complex systems. Strengths and weaknesses of various approaches. Techniques such as variational principles and Hamiltonian formalism that are significant in various optimization problems.</td>
<td>GR</td>
<td>LE</td>
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<tr>
<td>EC1050</td>
<td>Elem Mth EconBus ModMath</td>
<td>EC</td>
<td>4</td>
<td>Elementary mathematical models and methods with emphasis on applications in economic and business analyses and decision-making.</td>
<td>UG</td>
<td>LE</td>
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<tr>
<td>REL6900</td>
<td>Seminar in Religion</td>
<td>REL</td>
<td>3</td>
<td>Intensive study and discussion of a significant topic in religious studies. Students will conduct semester long projects culminating in a seminar paper. Titles vary.</td>
<td>GR</td>
<td>SE</td>
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<tr>
<td>CHMS210R</td>
<td>Adv Inorg Syn &amp; Charact Rec</td>
<td>CHM</td>
<td>0</td>
<td>Required recitation for CHM 5210.</td>
<td>GR</td>
<td>RE</td>
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<tr>
<td>FAS2690</td>
<td>Ag Science Topics</td>
<td>FAS</td>
<td>1</td>
<td>Focused study in an area of interest in agricultural science.</td>
<td>UG</td>
<td>LL</td>
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<tr>
<td>GER3320</td>
<td>Survey of German Lit II</td>
<td>GER</td>
<td>3</td>
<td>Historical survey of German literature from its beginning to the present, including Classicism, Romanticism, Poetic Realism, and Modern Period. Taught in German.</td>
<td>UG</td>
<td>LE</td>
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<tr>
<td>EE4800</td>
<td>UG Special Topics in EE</td>
<td>EE</td>
<td>1</td>
<td>Undergraduate special topics in electrical engineering. Topics vary.</td>
<td>UG</td>
<td>LE</td>
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<tr>
<td>PN6100</td>
<td>Human Physiology</td>
<td>PN</td>
<td>4</td>
<td>An overview of human/mammalian organ physiology. Fundamental mechanisms and the experimental basis for current understanding is emphasized. Prerequisite: Introductory biology, chemistry, physics, or permission of instructor.</td>
<td>GR</td>
<td>LE</td>
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<tr>
<td>ENG4640</td>
<td>TopicsTechPr of Writing</td>
<td>ENG</td>
<td>3</td>
<td>Courses, seminars, or workshops in specialized topics relating to business, technical, and professional writing.</td>
<td>UG</td>
<td>LE</td>
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<tr>
<td>EE6000</td>
<td>Discrete Linear Systems</td>
<td>EE</td>
<td>3</td>
<td>Covers discrete time signals and systems, the z-Transform, input/output theory and discrete Fourier transform, IIR and FIR filter design, relationships, and sampling.</td>
<td>GR</td>
<td>LE</td>
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<tr>
<td>PHIL3060</td>
<td>Analytic Philosophy</td>
<td>PHIL</td>
<td>3</td>
<td>Survey of the analytic tradition including philosophers such as Frege, Russell, Wittgenstein, Carnap, Quine, Davidson, Kripke, Putnam, and Nagel. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
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<tr>
<td>ISE4510</td>
<td>Comp Appl in ISE</td>
<td>ISE</td>
<td>3</td>
<td>Provides students with an overview for designing and implementing ISE-focused solutions using R. Of interest are applications of operations research, specifically of probabilities, inventory models, simulation and optimization, forecasting, data analytics, and decision support system (GUI/HTML Interface).</td>
<td>UG</td>
<td>LE</td>
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<tr>
<td>ED5050</td>
<td>MCE Gen Science Instr</td>
<td>ED</td>
<td>3</td>
<td>Methods for teaching middle level science pertinent to the Ohio Learning Standards with emphasis on content, developmentally appropriate pedagogy, curricula, and materials suitable for teaching fourth through sixth grade science education.</td>
<td>GR</td>
<td>LE</td>
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<tr>
<td>EDS4400</td>
<td>Collab Differentiation</td>
<td>EDS</td>
<td>3</td>
<td>Co-teaching models with emphasis on differentiation, integration of academic instruction/behavior management; collaborative consultation and communication strategies to enhance instruction for those with exceptional learning needs. Field experiences required. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
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<td>Course Code</td>
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<td>Title</td>
<td>Type</td>
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<tr>
<td>ED6250</td>
<td>6250</td>
<td>MCE Intern Pt I: Methods</td>
<td>EDUC Education</td>
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<tr>
<td>ED6410</td>
<td>6410</td>
<td>MCE: Student Teaching</td>
<td>EDUC Education</td>
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<tr>
<td>ART4590</td>
<td>4590</td>
<td>Senior Photo Portfolio</td>
<td>ART Art</td>
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<td>ACC4390</td>
<td>4390</td>
<td>Advncd&amp;Govmmnt/Not Profit Acc</td>
<td>ACC Accountancy</td>
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<td>CS3190</td>
<td>3190</td>
<td>Prog Lang Workshop</td>
<td>CS Computer Science</td>
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<td>RHB4070</td>
<td>4070</td>
<td>Prin of Rehab Counseling</td>
<td>RHB Rehabilitation</td>
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<tr>
<td>ANT5120</td>
<td>5120</td>
<td>Adv Hum Str &amp; Func II</td>
<td>ANT Anatomy</td>
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<tr>
<td>PSY8790</td>
<td>8790</td>
<td>Legal Issues in I/O Psy</td>
<td>PSY Psychology</td>
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<tr>
<td>PSY8320</td>
<td>8320</td>
<td>Ecological Interface Des</td>
<td>PSY Psychology</td>
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<tr>
<td>UVC1020</td>
<td>1020</td>
<td>FY Service Learning</td>
<td>UVC University College</td>
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<td>EES4960</td>
<td>4960</td>
<td>Senior Thesis Research</td>
<td>EES Earth &amp; Environmental Sciences</td>
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<tr>
<td>EDS6195</td>
<td>6195</td>
<td>Pract I: Dyslexia Mthd&amp;Instrmnt</td>
<td>EDS Education - Special Education</td>
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<td>EGR6610</td>
<td>6610</td>
<td>Clinical Engr Dev World</td>
<td>EGR Engineering</td>
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<tr>
<td>SM4000</td>
<td>4000</td>
<td>Senior Capstone in ISS</td>
<td>SM Science and Mathematics</td>
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<tr>
<td>MUE2050</td>
<td>2050</td>
<td>Chamber Music</td>
<td>MUE Music: Ensembles</td>
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<tr>
<td>PHIL8010</td>
<td>8010</td>
<td>Independent Study</td>
<td>PHIL Philosophy</td>
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<tr>
<td>KNNH6890</td>
<td>6890</td>
<td>Wkshp in Health, PE&amp;Rec</td>
<td>KNNH Kinesiology &amp; Health</td>
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<tr>
<td>ME6720</td>
<td>6720</td>
<td>Engineering Polymers I</td>
<td>ME Mechanical and Materials Engr</td>
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</table>

Candidates, mentored by a middle grades teacher, shall assist in the planning, organizing, delivering, and assessing of instruction in a 4-9th grade setting applying pedagogical content knowledge from middle childhood content and methods courses.

Teacher candidates are assigned to a school for intensive teaching experience in grades 4-9 under the direct supervision of an experienced classroom teacher.

Exploration of advanced photographic materials and techniques with emphasis on producing a thematic body of work. Investigation of aesthetic possibilities of the media. Development of personal concepts and aesthetic expression in photography. This course has a fee that is non-refundable once the term begins. Department Managed Prerequisite(s): Undergraduate level ART 4580 Minimum Grade of D/<br>

Accounting for business consolidations. In addition, the course will introduce fund accounting along with accounting for not-for-profit and governmental entities.

Accounting for business consolidations. In addition, the course will introduce fund accounting along with accounting for not-for-profit and governmental entities.

Department Managed Prerequisite(s): Graduate level PSY 8630 Minimum Grade of D/<br>

Examination of critical factors in the design of effective computer interfaces, including display, from a cognitive systems engineering and ecological interface design perspective. Design principles discussed include direct perception, direct manipulation, and visual momentum.

Success within selected major. Focuses on critical thinking, faculty mentors, career exploration, professionalism, ethics, financial literacy and goal setting through service learning.

In consultation with a faculty research advisor, students design a research problem that involves data collection and analysis. Students write a senior thesis in the style of a professional scientific journal. May be taken for a letter grade or pass/unsatisfactory. Integrated Writing course.

Use assessment data to plan and implement dyslexia remediation in a professional setting. Write professional case study integrating assessment and tutoring data. Required: 30 hours field experience required.

Students will be exposed to the culture of a developing country; learn how to live and interact with the local people; gain an appreciation for a culture different from their own and of the limited technical resources of educational and healthcare facilities in a developing country; learn how to install and repair medical and other technical equipment with simple tools. Department Managed Prerequisite(s): Undergraduate level PHY 2410 Minimum Grade of D/<br>

A political, social and economic analysis that questions, critiques, and provides alternative perspectives to orthodox economic theory. Studies groups, their systematic interrelations, and their impact on political, economic and social structures, practices, and outcomes. Department Managed Prerequisite(s): Graduate level MBA 5200 Minimum Grade of C or (Undergraduate level EC 2040 Minimum Grade of D and Undergraduate level EC 2050 Minimum Grade of D)/

A survey course designed as a capstone to the Integrated Science Studies program. Invited speakers in the natural sciences will discuss their work. Students will evaluate scientific literature and present independent research projects, Integrated Writing course.

Students will be exposed to the culture of a developing country; learn how to live and interact with the local people; gain an appreciation for a culture different from their own and of the limited technical resources of educational and healthcare facilities in a developing country; learn how to install and repair medical and other technical equipment with simple tools. Department Managed Prerequisite(s): Undergraduate level PHY 2410 Minimum Grade of D/<br>

Small chamber ensembles of varying instrumentation. Audition required.

Faculty-directed, individualized study on student-selected topics. Limited to advanced students. Permission of faculty and a minimum 3.5 GPA required.

Intensive study of content, curriculum, method, or materials designed to meet the needs of pre-service and in-service professionals in health, physical education, and recreation. Titles vary.

Introduces polymers as engineering materials and covers fundamental concepts in polymer science and engineering. Includes polymerization processes, morphology and crystallinity, thermal transitions, viscoelasticity, rubber elasticity, aging, and contemporary issues in polymers. Department Managed Prerequisite(s): Undergraduate level ME 2700 Minimum Grade of C/<br>
<p>| Fall 2022 | SPN3250 | 3250 | Business Spanish I | SPN | Spanish | 3 | An introduction to the language of business Spanish with insight into Spain and Latin America within the global economy. Integrated Writing course. Department Managed Prerequisite(s): Undergraduate level SPN 2020 Minimum Grade of D or Undergraduate level SPN 2120 Minimum Grade of D&lt;br&gt; | UG | LE | Lecture |
| Fall 2022 | ENG4990 | 4990 | English Honors Tutorial | ENG | English | 2 | Second in a two-semester sequence for senior English majors who are doing an English honors project. Department Managed Prerequisite(s): Undergraduate level ENG 4980 Minimum Grade of D&lt;br&gt; | UG | IS | Independent Study |
| Fall 2022 | EES5700 | 5700 | HAZWOPER Refresher | EES | Earth &amp; Environmental Sciences | 1 | Refresher training covering management of hazardous materials and emergency response in the workplace or at spills or hazardous waste sites. This course satisfies the requirements for 8 hours of refresher training specified under OSHA 29 CFR 1910.120. | GR | LE | Lecture |
| Fall 2022 | ENG6820 | 6820 | Adv Poetry Writing Seminar | ENG | English | 3 | Advanced practice in writing and revising poems, refining craft and style, with the aim of producing poetry of superior merit; group discussion of manuscripts; and reading and discussion of modern poetry and poetics. | GR | SE | Seminar |
| Fall 2022 | PSY9900 | 9900 | Independent Research | PSY | Psychology | 1 | Research conducted under faculty supervision for students who have completed their Master's thesis. | GR | IS | Independent Study |
| Fall 2022 | PHY4560 | 4560 | Int. Phy Sci &amp; Math II | PHY | Physics | 4 | Integration of physics and mathematics, fulfilling science and math standards, physics education issues, inquiry teaching practices, and assessment. Applications of these to electricity, magnetism, waves, and optics. | GR | LL | Lecture/Lab Combination |
| Fall 2022 | BMS8560 | 8560 | Glial Cell Physiology | BMS | Biomedical Sciences | 2 | (Also listed as P&amp;B 6500.) Concepts of glial cell physiology based on the analysis of current primary literature. Topics include interactions between glia and other cell types and the role of glia in pathophysiology. | GR | LE | Lecture |
| Fall 2022 | ANT4990 | 4990 | Selected Topics Anatomy | ANT | Anatomy | 1 | Various anatomy topics will be discussed with an assigned advisor. | UG | IS | Independent Study |
| Fall 2022 | MGT3900 | 3900 | App Management Skill &amp; Character | MGT | Management | 3 | An advanced introduction to the competence, character, and commitment required to achieve excellence in organizations. An opportunity for students to reinterpret their goals and identify steps that can be taken while in college toward success and well-being. | UG | LE | Lecture |
| Fall 2022 | CHM5520L | 5520L | Physical Chem Lab II | CHM | Chemistry | 2 | Experimental methods of physical chemistry. | GR | LB | Lab |
| Fall 2022 | PSY3530L | 3530L | Social Psychology Mth Lab | PSY | Psychology | 0 | Required laboratory for PSY 3530. Integrated Writing course. | GR | LB | Lab |
| Fall 2022 | TH1150 | 1150 | Singing for the Actor I | TH | Theatre | 1 | Private singing lessons for acting, theatre studies and dance majors only. | UG | ST | Studio |
| Fall 2022 | ME7690 | 7690 | Vibe Test &amp; Hll Mon | ME | Mechanical and Materials Engr | 3 | Advanced theoretical and practical aspects of vibration testing including: signal analysis, windowing, transducers, exciters, modal identification techniques, rotor dynamics, and machine health monitoring. Includes extensive independent lab study. Department Managed Prerequisite(s): Graduate level ME 6210 Minimum Grade of D&lt;br&gt; | GR | LL | Lecture/Lab Combination |
| Fall 2022 | PTX7004 | 7004 | MD/MS Journal Club | PTX | Pharmacology/Toxiology | 2 | This course was developed to give the medical students in the Clinical Investigation M.S. track the opportunity to become familiar with clinical research. This course includes hands-on training at the Pharmacology Translational Unit, WSP, as well as in-depth understandings of clinical research in the current literature. | GR | LE | Lecture |
| Fall 2022 | SOC2000 | 2000 | Intro to Sociology | SOC | Sociology | 3 | Introduction to the processes through which individuals become members of groups, organizations, institutions, and societies, and how human social interactions lead to changes in social life and structures. Integrated Writing course. Multicultural Competence course. | UG | LE | Lecture |
| Fall 2022 | BIO3140R | 3140R | Molecular Bio Lab Rec | BIO | Biology | 0 | Required recitation for BIO 3140. | UG | LB | Lab |
| Fall 2022 | SAA6650 | 6650 | Career Program &amp; Service | SAA | Student Affairs in Higher Ed | 2 | Learn to develop effective career development programs and services for use with individuals and groups including diverse populations. Applying career development ethical standards and guidelines to client cases will be emphasized. | GR | LE | Lecture |
| Fall 2022 | RHB3631 | 3631 | Behavioral Analysis II | RHB | Rehabilitation | 3 | Development of applied behavioral analysis plans and assessing intervention strategies. | UG | LE | Lecture |
| Fall 2022 | SOC4640 | 4640 | Gender and Sexuality | SOC | Sociology | 3 | Explores gender and sexuality constructions from a global perspective. Topics include the effects of globalization, colonization and imperialism, as well as transnational feminist and LGBQA activism. Department Managed Prerequisite(s): Undergraduate level SOC 3610 Minimum Grade of C or Undergraduate level SOC 4600 Minimum Grade of C or Undergraduate level WGS 2000 Minimum Grade of C&lt;br&gt; | UG | LE | Lecture |
| Fall 2022 | EE6620L | 6620L | Dig Integ Chi Design Lab | EE | Electrical Engineering | 1 | Realizations, testing and evaluation of digital integrated circuits with particular emphasis on programmable logic devices. | GR | LB | Lab |
| Fall 2022 | EDT7000 | 7000 | Entry Seminar Ed Tech | EDT | Educational Technology | 1 | Introductory seminar for educational technology and library media programs. Students should take this class before or concurrently with their first educational technology or library media courses. | GR | SE | Seminar |
| Fall 2022 | PSY8780 | 8780 | Organizational Theory | PSY | Psychology | 2 | Seminar with in-depth coverage of organizational theory. | GR | SE | Seminar |
| Fall 2022 | EC2000 | 2000 | Economic Life | EC | Economics | 3 | Basic economic concepts such as resource allocation, costs, supply, demand, and public goods. Topics include American capitalism, market failures, unemployment, inflation, and taxation. Basic economic principles applied to modern society and the challenges presented by a globalized economy. Credit will not be given for EC 2000 Economic Life for students who have already successfully completed EC 2040 and EC 2050. Integrated Writing course. | UG | LE | Lecture |
| Fall 2022 | AES3340 | 3340 | ICL Lab | AES | Aerospace Studies | 0 | Application of leadership/management concepts learned in Field Training and in previous Aerospace Studies courses and labs to assist in training the GMC cadets. Requires participation in two weekly physical training sessions. | UG | LB | Lab |
| Fall 2022 | UVC1010 | 1010 | First Year Seminar | UVC | University College | 1 | Students experience opportunities to build their collegiate identity by clarifying their values while engaging the campus community and experiencing diversity. Students also explore learning strategies to set goals, plan their courses, develop their communication skills, and explore careers while learning to achieve overall health and wellness. | UG | SE | Seminar |
| Fall 2022 | EES6500 | 6500 | Carbonate Sed &amp; Petrolog | EES | Earth &amp; Environmental Sciences | 4 | An introduction to the origin, composition, and diageneis of ancient and modern carbonate rocks. Topics include the macroscopic and microscopic identification of rock constituents and a survey of depositional models for modern carbonate environments, with an emphasis on Floridian and Bahamian carbonates facies. Four hours lecture/lab combination. | GR | LL | Lecture/Lab Combination |
| Fall 2022 | PHL3250 | 3250 | Inductive Logic | PHL | Philosophy | 3 | Introduction to the techniques of inductive and probabilistic reasoning with emphasis on the problems encountered in attempting to justify those techniques. Students who have taken PHL 2150 cannot take PHL 3250. | UG | LE | Lecture |
| Fall 2022 | KNH1050 | 1050 | Army Fitness Training II | KNH | Kinesiology &amp; Health | 1 | Fundamental skills and knowledge of Army Fitness Training. Competency-based approach. Course may accommodate disabled students when appropriate. | UG | LB | Lab |
| Fall 2022 | STT7400 | 7400 | Categoric Data Analysis | STT | Statistics | 3 | Standard techniques for analyzing and describing two-dimensional contingency tables. Logistic regression models and loglinear models developed for data structures involving categorical response variables, including model selection procedures, diagnostics, association graphs, and collapsibility. SAS procedures used for analysis of data sets. Multi-graph representations. Repeated categorical response data and generalized linear mixed effects models. | GR | LE | Lecture |
| Fall 2022 | P&amp;N6690 | 6690 | Quant Aspects Mem Trans | P&amp;N | Physiology &amp; Neuroscience | 2 | Employs a quantitative approach to the properties of solutes, water, bio-electrical phenomena, the properties of transport systems that move solutes across biological membranes, and the interactions of these solutes with membranes. Completion of calculus, cell biology, and cellular physiology and biophysics required. May be taken for letter grade or pass/unsatisfactory. | GR | LE | Lecture |
| Fall 2022 | STT2640 | 2640 | Elementary Statistics | STT | Statistics | 4 | Numerical and graphical methods for finding and summarizing important features of data. Principles of designing experiments for collecting data. Introduction to probability, confidence intervals and hypothesis testing, introduction. Applications to means, proportions, two-sample comparisons, contingency tables, linear regression, and analysis of variance. Use of statistical computing package to apply methods and illustrate concepts. | UG | LE | Lecture |
| Fall 2022 | REL3110 | 3110 | Judaism: Faith &amp; People | REL | Religion | 3 | Judaism as a religious faith and people, with special reference to formative historical, social, ethnic, and cultural factors. | UG | LE | Lecture |
| Fall 2022 | PTX8500 | 8500 | Good Laboratory Practice | PTX | Pharmacology/Toxology | 3 | GLP regulations are a set of international standards developed to ensure quality and reliability of safety data submitted to regulatory authorities. Overview of standards and principles governing the conduct of pharm/tox studies. | GR | LE | Lecture |
| Fall 2022 | CEG4360 | 4360 | Distrib Computing &amp; Sys | CEG | Computer Engineering | 3 | Study of process communication, core distributed algorithms, distributed file systems, cloud computing, and massive scale data-parallel processing. | UG | LE | Lecture |
| Fall 2022 | PPH7170 | 7170 | PH Epidemiology | PPH | Population &amp; Public Health | 3 | Through homework, readings, exercises and class projects, students will gain hands-on experience of epidemiologic research. | GR | LE | Lecture |
| Fall 2022 | URS4490 | 4490 | Issue in City &amp; Commnty Dvlpment | URS | Urban Affairs | 3 | Explores issues that impact city and community development as well as the impact of development. Topics include pollution, international development, housing and transportation. | UG | LE | Lecture |
| Fall 2022 | HEA9240 | 9240 | Thinking HI ED | HEA | Higher Education Admin | 3 | Introduction to administrative, organizational, and leadership theory and practice in the two-year and four-year college and university. Participants explore historical, current, and future plans for administration in higher education. | GR | LE | Lecture |
| Fall 2022 | PPH7030 | 7030 | Environmental Health | PPH | Population &amp; Public Health | 3 | Students taking this course will develop a broad knowledge base in the multidisciplinary field of environmental health. The class will focus on the topics of environmental health that have the greatest affect on the community, such as foodborne health hazards, zoonotic disease, housing, water treatment, and solid and hazardous waste and substances. Contemporary concerns, such as climate change, environmental disaster, and the built environment, will also be thoroughly discussed. | GR | LE | Lecture |
| Fall 2022 | BMB7650 | 7650 | Comp Tools/Strategy BMB | BMB | Biochem &amp; Molecular Biology | 2 | This is a survey course of modern high-throughput experimental approaches and computational tools used currently in cell and molecular biology, microbiology, and ecology. Students will gain knowledge of the most widely used experimental techniques and will obtain hands on laboratory-type computational experience with key software and strategies. Covered topics include genomics, gene expression profiling, phylogenetic analysis, next-generation sequencing, and biological pathway analysis. | GR LE Lecture |
| Fall 2022 | BIO4090 | 4090 | Intro to R Biology Apps | BIO | Biology | 3 | Programming biostatistics applications in the statistical software package R. | UG LE Lecture |
| Fall 2022 | NUR7104 | 7104 | Adv Hlth Asmt Lifespan | NUR | Nursing | 3 | Application of cognitive processes and psychomotor skills needed for comprehensive health assessment. Emphasis is on health history; physical, developmental, and nutritional assessment; and identification of common client problems across the life span. | GR LL Lecture/Lab Combinatio n |
| Fall 2022 | WGS6800 | 6800 | Selected Subjects | WGS | Women, Gender, and Sexuality | 3 | Issues, approaches, and topics in women's studies. Topics vary. | GR LE Lecture |
| Fall 2022 | FAS2110 | 2110 | Food Processing Unit Op | FAS | Food and Agricultural Systems | 3 | A study of selected food processes and the underlying principles behind their operation. | UG LE Lecture |
| Fall 2022 | ENG6560 | 6560 | ILA Capstone | ENG | English | 3 | Study of the integration and pedagogy of reading, writing, listening, speaking, viewing, and visually representing. Emphasis on responding to literature and introduction to interdisciplinary and thematic units.&lt;b&gt; Department Managed Prerequisite(s): (Undergraduate level ENG 3520 Minimum Grade of C or Graduate level ENG 6520 Minimum Grade of C) and (Undergraduate level ENG 3530 Minimum Grade of C or Graduate level ENG 6530 Minimum Grade of C) and Undergraduate level ENG 3560 Minimum Grade of C and (Undergraduate level ENG 3570 Minimum Grade of C or Graduate level ENG 6570 Minimum Grade of C)&lt;b&gt; | GR LE Lecture |
| Fall 2022 | PPH8120 | 8120 | HSM Practice Placement | PPH | Population &amp; Public Health | 1 | This practice placement will provide the student with the opportunity to engage in any area of population health, health systems, health policy, health economics and/or health finance. | GR PR Practicum |
| Fall 2022 | PLS4160 | 4160 | Sex and the Law | PLS | Political Science | 3 | Addresses how government uses law to regulate sex as activity, expression, and identity. Integrated Writing course. | UG LE Lecture |
| Fall 2022 | ISE3540L | 3540L | Intro to Comp for ISE Lab | ISE | Industrial &amp; Systems Engr | 0 | Required laboratory for ISE 3540. | UG LB Lab |
| Fall 2022 | CNL6610 | 6610 | Principles of Counseling | CNL | Counseling | 3 | Introduction and overview of major counseling principles, theories, techniques, historical foundations, and services. Also, addresses counseling specialties and professional organizations. | GR LE Lecture |
| Fall 2022 | SPN5450 | 5450 | Afro-Hispanic Culture | SPN | Spanish | 3 | Examination of unique African contributions, including language, music, dance, literature, art, religion, and food, to Hispanic America's complex identity from the Colonial period to the present, with special attention to struggles of Afro-descendants for inclusion, social equity, human rights, and citizenship. | GR LE Lecture |
| Fall 2022 | ME2600 | 2600 | Metallurgy | ME | Mechanical and Materials Engr | 1 | Experimental methods characterizing the microstructure of solids. Emphasis on optical microscopy and the effects of processing on properties and microstructure.&lt;b&gt; Department Managed Prerequisite(s): Undergraduate level ME 2700 Minimum Grade of D (ME 2700 can be taken concurrently)&lt;b&gt; | UG LB Lab |
| Fall 2022 | GER4060 | 4060 | Renaissance &amp; Reformation | GER | German | 3 | Representative German authors of the period. | UG LE Lecture |
| Fall 2022 | URS3450 | 3450 | Public Administration | URS | Urban Affairs | 3 | Nature and scope of public administration, administrative law, and public interest in the administrative process. | UG LE Lecture |
| Fall 2022 | HPR4850 | 4850 | Teaching MS/HS PE | HPR | Health Phy Edu &amp; Recreation | 3 | Students apply teaching and management strategies that have been linked to student learning, the design of instructional materials and techniques, and strategies for working with a diversity of learners in middle and high school. | UG LE Lecture |
| Fall 2022 | EE4800L | 4800L | Special Topics in EE Lab | EE | Electrical Engineering | 1 | Special topics in electrical engineering lab. | UG LB Lab |
| Fall 2022 | KHN1220A | 1220A | Fencing: Competitive | KHN | Kinesiology &amp; Health | 1 | Intermediate level of skills and knowledge in Fencing: Competitive. Competency-based approach. Course may accommodate disabled students when appropriate. | UG LB Lab |
| Fall 2022 | MUS4300 | 4300 | Improving Rdg Mus Core Area | MUS | Music | 3 | Provides multi-age music teachers with reading and writing strategies to help solve problems encountered in grades K-12. Language art skills and strategies are taught to help students communicate more effectively across the curriculum. | UG LE Lecture |
| Fall 2022 | KHN1020B | 1020B | Aerobic Conditioning | KHN | Kinesiology &amp; Health | 1 | Fundamental skills and knowledge of Aerobic Conditioning. Competency-based approach. Course may accommodate disabled students when appropriate. | UG LB Lab |
| Fall 2022 | EES4720 | 4720 | Epid &amp; Community Hlth | EES | Earth &amp; Environmental Sciences | 3 | Communicable and occupational diseases of contemporary importance. Epidemiological investigation, environmental considerations, and control procedures. | UG LE Lecture |
| Fall 2022 | BMB3030 | 3030 | Research Ethics | BMB | Biochem &amp; Molecular Biology | 1 | Ethical dilemmas present in scientific research including discussion of various real-life scenarios. | UG LE Lecture |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
<th>Description</th>
<th>Year</th>
<th>Type</th>
<th>Credits</th>
<th>Location</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS5900</td>
<td>5900</td>
<td>Special Topics in Computer Science</td>
<td>Special topics in computer science.</td>
<td>Fall</td>
<td>CR</td>
<td>1</td>
<td>Lecture</td>
</tr>
<tr>
<td>ED6980</td>
<td>6980</td>
<td>Cont. Sax: Multi-age/Vis Education</td>
<td>Seminar accompanying Multi-Age Visual Arts Internship focusing on pedagogical content knowledge in Visual Arts, assessment based on the Ohio Multi-Age Visual Arts Standards and the completion of the professional portfolio.</td>
<td>Fall</td>
<td>SE</td>
<td>3</td>
<td>Seminar</td>
</tr>
<tr>
<td>MLB4811</td>
<td>4811</td>
<td>Basic Immunology Lab</td>
<td>Use of antigens and antibodies in blood grouping and transfusion medicine. This course has a fee that is non-refundable once the term begins.</td>
<td>Fall</td>
<td>LB</td>
<td>1</td>
<td>Lab</td>
</tr>
<tr>
<td>EGR7980</td>
<td>7980</td>
<td>Special Topics in EGR</td>
<td>Special topics in engineering. Prerequisite: instructor approval.</td>
<td>Fall</td>
<td>LE</td>
<td>1</td>
<td>Lecture</td>
</tr>
<tr>
<td>ED3100</td>
<td>3100</td>
<td>African Amer Exp in Ed</td>
<td>Explores the diverse experiences of being African American and examines the effect of Blackness on students’ and teachers’ experiences. Facilitates examination of personal biases and effective methods for providing educational access for all.</td>
<td>Fall</td>
<td>LE</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>URS6900</td>
<td>6900</td>
<td>Transit Internship</td>
<td>A one semester supervised internship of at least 300 hours in a selected public, nonprofit or public-service transit agency. Arranged in consultation with student’s adviser or intern director.</td>
<td>Fall</td>
<td>IN</td>
<td>3</td>
<td>Internship</td>
</tr>
<tr>
<td>PLS3260</td>
<td>3260</td>
<td>Black Women and Politics</td>
<td>Role of race and gender in the political activities of black women in the US, Africa, and the diaspora. Integrated Writing course.</td>
<td>Fall</td>
<td>LE</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>FAS3210</td>
<td>3210</td>
<td>Nutrition Management</td>
<td>Provide the fundamental concepts of soil sampling, soil test interpretation, and development of nutrient recommendations for agricultural production while maintaining environmental stewardship. Additionally, this course will address common nutrient sources and forms, how to determine application rates to satisfy production requirements, storage and handling of nutrients, application methods, and timing of nutrients in various forms.</td>
<td>Fall</td>
<td>VB</td>
<td>3</td>
<td>Lab</td>
</tr>
<tr>
<td>EDS2700</td>
<td>2700</td>
<td>Cultural Exploration</td>
<td>Using tutoring experiences to explore community differences in language and culture and the impact of these on the growth of development of students with exceptional learning needs. Seminar discussions required.</td>
<td>Fall</td>
<td>SE</td>
<td>3</td>
<td>Seminar</td>
</tr>
<tr>
<td>CS6290</td>
<td>6290</td>
<td>Cryptography Data Secur</td>
<td>Mathematical principles of cryptography and data security. Preliminary algebra and number theory will be briefly introduced. Various developments in cryptography will then be discussed, including the data encryption standard (DES), public-key encryption (RSA), cryptographic hash functions, digital signatures, key safeguarding schemes, and cryptographic protocols such as key exchange and entity authentication, identification schemes, electronic elections and digital cash.</td>
<td>Fall</td>
<td>LE</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHL4710</td>
<td>4710</td>
<td>Philosophy of Science</td>
<td>Analysis of the techniques of reasoning used in both natural and social science. Exploration of the history of science and the rise of the scientific method, including an examination of important theories, discoveries, and disputes, as well as the difference between science and pseudo-science.</td>
<td>Fall</td>
<td>LE</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>MLB4111</td>
<td>4111</td>
<td>Orientation MLS Lab</td>
<td>Application of lab safety, universal precautions, specimen collection, quality assurance, phlebotomy, and other techniques fundamental to medical laboratory.</td>
<td>Fall</td>
<td>LB</td>
<td>0.5</td>
<td>Lab</td>
</tr>
<tr>
<td>NUR4461C</td>
<td>4461C</td>
<td>Lead&amp;Manage Tran Prof Nur Clin</td>
<td>Clinical course for NUR 4461.</td>
<td>Fall</td>
<td>CL</td>
<td>0</td>
<td>Clinical</td>
</tr>
<tr>
<td>NUR7002</td>
<td>7002</td>
<td>Info Tech in Hlth Care</td>
<td>This course focuses on the theoretical basis of nursing and health care informatics and the utilization of informatics and health care technologies in the management of individuals, groups and organizations to improve communication, delivery of health care, and healthcare outcomes.</td>
<td>Fall</td>
<td>LE</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>NEU4990</td>
<td>4990</td>
<td>Ind Research Neurosci</td>
<td>Students will actively participate in neuroscience research projects and gain proficiency in techniques used to study various aspects of neuroscience.</td>
<td>Fall</td>
<td>IS</td>
<td>1</td>
<td>Independent Study</td>
</tr>
<tr>
<td>PL56170</td>
<td>6170</td>
<td>App Politics and Moot Ct</td>
<td>Politics in the appellate courts and simulated appellate arguments in a moot court setting.</td>
<td>Fall</td>
<td>LE</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>ASL4020</td>
<td>4020</td>
<td>Communicatio n Variations</td>
<td>Exploration of the range of registers and signing styles of deaf persons depending on factors including age, experience, education, race, socio-economic level, degree of hearing loss.</td>
<td>Fall</td>
<td>LE</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>MTH7520</td>
<td>7520</td>
<td>Algebra II</td>
<td>Rings and modules: Noetherian rings and modules, Artinian rings and modules, and Wedderburn-Artin structure theory. Field theory-simple extensions, Galois theory, solvability by radicals, cyclotomy, finite fields, and Wedderburn's theorem.</td>
<td>Fall</td>
<td>LE</td>
<td>4</td>
<td>Lecture</td>
</tr>
<tr>
<td>PSY4050</td>
<td>4050</td>
<td>Honors Seminar Psychology</td>
<td>Primarily derived from current honors thesis research. Literature surveys, experimental designs, and special analytical problems presented and discussed by students and faculty. Topics vary.</td>
<td>Fall</td>
<td>SE</td>
<td>2</td>
<td>Seminar</td>
</tr>
<tr>
<td>PHY7520</td>
<td>7520</td>
<td>Mol. Spectra &amp; Structure</td>
<td>Theory of molecular spectra and structure with examination of experimental data as related to molecular spectra.</td>
<td>Fall</td>
<td>SE</td>
<td>3</td>
<td>Seminar</td>
</tr>
<tr>
<td>REL5720</td>
<td>5720</td>
<td>Pentateuch REL Religion</td>
<td>Examines patriarchal narratives and Mosaic legislation in the Pentateuch or Torah as the bedrock of the Bible.</td>
<td>Fall</td>
<td>LE</td>
<td>3</td>
<td>Lecture</td>
</tr>
<tr>
<td>PTX8300</td>
<td>8300</td>
<td>Integ Pharm/Tox Methods</td>
<td>This course provides basic and general principles on animal handling, caring and experimental design. It instructs basic techniques in drug dosing and administration, animal surgery, tissue sample collection. Emphasizes Biomedical Science’s current methods.</td>
<td>Fall</td>
<td>LL</td>
<td>3</td>
<td>Lecture/Lab Combinations</td>
</tr>
</tbody>
</table>
Fall 2022  HST6550  6550  U.S. Foreign Relations  HST  History  3  Examines main currents, prominent issues, key individuals and major events in the history of U.S. relations with other countries and regions. Topics vary.  GR  LE  Lecture

Fall 2022  ME7400  7400  Hypersonic Flows  ME  Mechanical and Materials Engr  3  Hypersonic flow is studied from the viewpoint of its unique fluid dynamic attributes with emphasis on classic inviscid theories, chemical kinetics, and state-of-the-art development.  Department Managed Prerequisite(s): Undergraduate level ME 4330 Minimum Grade of D or Graduate level ME 6330 Minimum Grade of D<br>GR  LE  Lecture

Fall 2022  HUM7000  7000  Grad Res Methods in Hum  HUM  Humanities  3  An introduction to graduate research in the humanities with primary emphasis on research writing.  GR  SE  Seminar

Fall 2022  PHY1060L  1060L  Astronomy Laboratory  PHY  Physics  1  Astronomical observations and experiments.  UG  LB  Lab

Fall 2022  TH1060  1060  Music Theory for Actors  TH  Theatre  2  Introduces basics of rhythm, melody, sight-singing, and musical theatre piano in a group class.  UG  LL  Lecture/Lab Combination

Fall 2022  PSY4910  4910  Psychobio of Stress Cap  PSY  Psychology  3  Communication-intensive seminar integrating knowledge on the psychobiology of stress. Students will become familiar with original scientific literature on the psychobiology of stress, how physiological systems respond to psychogenic stressors, and the current thinking on stress-related health disorders. Integrated Writing course.  UG  SE  Seminar

Fall 2022  PHY7310  7310  Solid State - E&M  PHY  Physics  3  Topics in solid state physics related to electromagnetic properties. Topics may include but are not limited to theories of electronic and spin conduction, theories of magnetism, electronic band structure, dielectric function and polarizability, theories of optical transmission and absorption, ferroelectricity, ferromagnetism, and superconductivity, spin resonance, and the mosbauer efeector.  GR  SE  Seminar

Fall 2022  BIO4430  4430  Vertebrate Histology  BIO  Biology  5  Study of structure/function relationships in vertebrate tissues, organs and organ systems.  UG  LE  Lecture

Fall 2022  BMB4020  4020  Research Perspectives  BMB  Biochem & Molecular Biology  1  Acquaints students with the research being carried out by faculty in the Biochemistry and Molecular Biology program.  UG  LE  Lecture

Fall 2022  PSY4500  4500  Social Psych Cap Interven  PSY  Psychology  3  Communication-intensive seminar integrating knowledge on social psychology. Topic will vary by title. Integrated Writing course.  UG  SE  Seminar

Fall 2022  ED6090  6090  Assessment/Intervention  ED  Education  3  Candidates will learn to use a range of literacy assessment instruments to assess student reading and writing performance and to determine best practices and interventions in order to meet student needs.  GR  LE  Lecture

Fall 2022  CS3800  3800  Web Development II  CS  Computer Science  3  Focuses on server side web development. Topics include creation of dynamic web pages, processing form data, database design and interaction, managing cookies and sessions, and security. Students will use a current server-side language such as PHP and a database management system such as MySQL.  UG  LL  Lecture/Lab Combination

Fall 2022  EDS7200  7200  Field Experience I: Interv Spe  EDS  Education - Special Education  1  Introduces students to the educational process through participation in a classroom and through an examination of classroom dynamics within a natural setting.  GR  PR  Practicum

Fall 2022  HUM7400  7400  Humanities Thesis  HUM  Humanities  1  Master's thesis under the direction of a three-member faculty committee.  GR  IS  Independent Study

Fall 2022  EC4450  4450  Political Econ of Women  EC  Economics  3  Provides feminist understanding of women's economic roles and contributions in the context of globalization. Explores how the employment, and international market relations.  Fall 2022  TH2220  2220  Theatre Production  TH  Theatre  1  Practical experience in technical theatre through serving on run crew for theatre department productions. For non-Design/Technology majors.  UG  LE  Lecture

Fall 2022  MS2040  2040  Intro to Business Stats  MS  Management Science  3  Statistical methods used in analysis of business problems, including theory and application of frequency distributions, measures of central tendency and variability, probability distributions, expectation, sampling and estimation, and one-sample hypothesis testing.  UG  LE  Lecture

Fall 2022  REL3730  3730  Genesis  REL  Religion  3  Biblical book of Genesis as the foundation of the Bible and of values and concerns of western civilization. Explores ancient Mesopotamian creation and flood myths as sources for these tales.  UG  LE  Lecture

Fall 2022  CEG6230  6230  Intro Robotics  CEG  Computer Engineering  3  (Also listed as CEG 6560 and ME 6560.) An introduction to the mathematics of robots. Topics covered include coordinate systems and transformations, manipulator kinematics and inverse kinematics, Jacobians, dynamic and trajectory planning.  GR  LE  Lecture

Fall 2022  EES4190L  4190L  Paleobiology Lab  EES  Earth & Environmental Sciences  0  Required laboratory for EES 4190.  UG  LB  Lab

Fall 2022  GEO4100  4100  Remote Sensing  GEO  Geography  3  Survey of remote sensing spatial analysis. Applications, technology, and spatial measurements used to interpret remote sensed images.  UG  LE  Lecture

Fall 2022  ACC3230  3230  Management Accounting  ACC  Accountancy  3  Application of managerial accounting concepts and techniques to complex problems in manufacturing accounting and service firms.  UG  LE  Lecture

Fall 2022  EDT8130  8130  Online Courses Interactive  EDT  Educational Technology  3  Examines the theory and practices of using educational technologies to ensure online courses include ample interaction. Class will include the knowledge and skills necessary to utilize some of these educational technologies.  GR  LE  Lecture
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Type</th>
<th>Methods</th>
</tr>
</thead>
<tbody>
<tr>
<td>PHL6240</td>
<td>Literature and Philos.</td>
<td>6</td>
<td>A study of literary texts with strong philosophical themes such as philosophy and tragedy or philosophy of science fiction.  Graded pass/unsatisfactory.</td>
<td>GR</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>PSY2610</td>
<td>Behavior Modification</td>
<td>4</td>
<td>Introduces procedures used in the field of behavior modification.</td>
<td>UG</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>ED6570</td>
<td>AYA Int Pt II: Std Y WL</td>
<td>6</td>
<td>Candidates, under the direct supervision of an experienced classroom teacher, are assigned to a school for intensive teaching experience in grades p-12 in Multi-Age World Languages. Graded pass/unsatisfactory.</td>
<td>GR</td>
<td>IN Internship</td>
</tr>
<tr>
<td>MUS1520</td>
<td>Musicianship II</td>
<td>4</td>
<td>The study of sight singing and techniques for hearing and notating melody and harmony.</td>
<td>UG</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>PHYS220</td>
<td>Optics</td>
<td>3</td>
<td>Study of optics using geometric and physical optics. Theory and applications of interferometry and light detection devices. Study of optical instruments. Brief introduction to lasers and holography.</td>
<td>GR</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>HED4850</td>
<td>Foundations Htil Ed II</td>
<td>4</td>
<td>During this culminating health methods experience, students apply health education pedagogical skills through the development of a comprehensive health education unit and health education resource plan. Graded Written course.</td>
<td>UG</td>
<td>LL Lecture/Lab Combinatio n</td>
</tr>
<tr>
<td>IHE8930</td>
<td>Non-Dissert Resrch in IHE</td>
<td>1</td>
<td>Ph.D. Non-Dissertation Research in Industrial and Human Factors Engineering</td>
<td>GR</td>
<td>IS Independent Study</td>
</tr>
<tr>
<td>SPN1010</td>
<td>Beginning Spanish I</td>
<td>3</td>
<td>Communicative introduction to Spanish language and Hispanic cultures. Study of the vocabulary and structure of the Spanish language; practice in speaking, listening, reading, and writing. Taught in Spanish.</td>
<td>GR</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>SPN3220</td>
<td>Adv SPN Conv and Writing</td>
<td>3</td>
<td>Conversational and writing techniques and grammar review; literary and/or film and/or media analysis incorporating targeted grammar, vocabulary, and stylistic devices. Taught in Spanish. Integrated Writing course.</td>
<td>GR</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>BUS1000</td>
<td>Bus. &amp; Career Opp.</td>
<td>1</td>
<td>Perspectives on an undergraduate degree in Business. Professional career opportunities, preparation for a business career, academic paths, and resources available to students through both Wright State University and the Raj Soin College of Business.</td>
<td>GR</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>GER5810</td>
<td>Applied Elem Ger Instr</td>
<td>1</td>
<td>Assist GER 1010 or GER 1020 course instructors in conducting classes. Taught in German. Instructor Permission required.</td>
<td>GR</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>ABS7800</td>
<td>Continuing Registration</td>
<td>1</td>
<td>Continuing Registration.</td>
<td>GR</td>
<td>IS Independent Study</td>
</tr>
<tr>
<td>ISE3940</td>
<td>Indus &amp; Sys Eng Intr I</td>
<td>1</td>
<td>Industrial and systems engineering internship course. Students are supervised via weekly seminars and regular feedback from employer. Must have completed all of the 2nd year courses as listed in the program guide. Minimum of 10 hours per week for each credit hour registered. A minimum total of 450 hours of work is required for 3 credits of technical elective credit.</td>
<td>GR</td>
<td>IN Internship</td>
</tr>
<tr>
<td>LAT4810</td>
<td>Independent Reading</td>
<td>1</td>
<td>Reading and discussion of selected works of Latin literature with emphasis on grammatical, rhetorical, literary, and cultural analysis and criticism. Topics vary.</td>
<td>GR</td>
<td>IS Independent Study</td>
</tr>
<tr>
<td>GER4180</td>
<td>Goethe's Faust</td>
<td>3</td>
<td>Intensive study of Faust I and Faust II. Department Managed Prerequisite(s): Undergraduate level GER 3110 Minimum Grade of D or Undergraduate level GER 3210 Minimum Grade of D or Undergraduate level GER 3250 Minimum Grade of D or Undergraduate level GER 3260 Minimum Grade of D or Undergraduate level GER 3310 Minimum Grade of D or Undergraduate level GER 3320 Minimum Grade of D or Undergraduate level GER 3350 Minimum Grade of D or Undergraduate level GER 3610 Minimum Grade of D.</td>
<td>GR</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>LEP0480</td>
<td>LEAP Test Preparation</td>
<td>0</td>
<td>This course is designed to help non-native students of English prepare for standardized English tests such as the TOEFL and IELTS. The course includes strategies for test-taking in addition to practice exams with feedback. This course has a fee that is non-refundable once the term begins.</td>
<td>GR</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>EDS4720</td>
<td>IS Internship Part I</td>
<td>1</td>
<td>Candidates, mentored by an educator, shall assist in the planning, organizing, delivering, and assessing of instruction in a K-12th grade setting applying pedagogical content knowledge from content and methods courses.</td>
<td>GR</td>
<td>IN Internship</td>
</tr>
<tr>
<td>RHB2020</td>
<td>Community Resources</td>
<td>3</td>
<td>Preparation in becoming professional consumers of rehabilitation resources. Learning how to identify, write, and submit a grant and effective strategies of teamwork are also components of course. Students will volunteer in a rehabilitation agency. Integrated Writing course. Service Learning course.</td>
<td>GR</td>
<td>LE Lecture</td>
</tr>
<tr>
<td>ME4680</td>
<td>Experimental Nanoscience</td>
<td>3</td>
<td>Laboratory experiments 1) fabrication of nanomaterials; 2) characterization of physical and chemical properties; and 3) computational modeling of nanoscale physical phenomena. Department Managed Prerequisite(s): Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CHM 1210L Minimum Grade of D and Undergraduate level PHY 1120 Minimum Grade of D and Undergraduate level PHY 1120L Minimum Grade of D or (Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CHM 1210L Minimum Grade of D and Undergraduate level PHY 2410 Minimum Grade of D and Undergraduate level PHY 2410L Minimum Grade of D).</td>
<td>GR</td>
<td>PKG Combination n</td>
</tr>
</tbody>
</table>

Fall 2022 | EDT7120 | Gamification | EDT | Educational Technology | 3 | An introduction to gamification. Students will explore Game Theory and experience games to identify the factors and motivation in successful games. No technical knowledge is needed. b>Department Managed Prerequisite(s): Graduate level EDT 7860 Minimum Grade of D | GR | LL | Lecture/Lab Combinatoi

Fall 2022 | EE7590 | CMOS RF IC Design | EE | Electrical Engineering | 3 | Introduction to the design of Radio Frequency Integrated Circuits using CMOS technology. Topics include S-parameters, noise sources in RF Integrated Circuits, low noise RF amplifiers, RF mixers, RF oscillators and synthesizers, phase lock loops and phase noise. b>Department Managed Prerequisite(s): Graduate level EE 7580 Minimum Grade of C and Graduate level CEG 7080 Minimum Grade of D | GR | LE | Lecture

Fall 2022 | TH2250 | Th Graph II Media Color | TH | Theatre | 3 | Black and white media and basic color theories, materials, and techniques used in designing for the theatre. | UG | ST | Studio

Fall 2022 | ISE4820 | Supp Ch Analy & Des | ISE | Industrial & Systems Engr | 3 | Develops an understanding of the strategic issues of facility planning and determination of facility requirements; quantitative models for complex facility design, location, and planning decisions are presented, as well as an overview of material handling equipment design and selection. | UG | LE | Lecture

Fall 2022 | SPN3450 | Afro-Hispanic Culture | SPN | Spanish | 3 | Examination of unique African contributions, including language, music, dance, literature, art, religion, and food, to Hispanic America’s complex identity from the Colonial period to the present, with special attention to struggles of Afro-descendants for inclusion, social equity, human rights, and citizenship. b>Department Managed Prerequisite(s): Undergraduate level SPN 3210 Minimum Grade of D or Undergraduate level SPN 3250 Minimum Grade of D | UG | LE | Lecture

Fall 2022 | REL3900 | Topics in Phil of Rel | REL | Religion | 3 | Selected topics in the philosophy of religion. | UG | LE | Lecture

Fall 2022 | HST4810 | African-American History | HST | History | 3 | Examines topics drawing from the African-American experience; may include black ideology and leadership, racial tension in urban society, and the civil rights movement. Topics vary. Integrated Writing course. | UG | LE | Lecture

Fall 2022 | MUE6770 | Chamber Orchestra | MUE | Music | Ensembles | 1 | Instrumental ensemble, consisting primarily of strings and varying combinations of wind and percussion instruments, devoted to the study and performance of music written for that medium. | GR | LL | Lecture/Lab Combinatoi

Fall 2022 | EE4170 | Digital Control Sys | EE | Electrical Engineering | 3 | Samples spectra and aliasing, analysis and design of digital control systems using root locus and transform techniques; discrete equivalents of continuous controller and quantization effects. | UG | LE | Lecture

Fall 2022 | GR6530 | Greek History & Biograph | GR | Greek | 3 | Herodotus, Thucydides, Xenophon, Polybius, and Plutarch. Topics include methods of composition, influences on historiography from the sophists and philosophers, the development of Greek historical writing, and supplemental evidence from inscriptions and nonliterary sources. Titles vary. | UG | LE | Lecture

Fall 2022 | EES6250 | Climate Change | EES | Earth & Environmental Sciences | 3 | This lecture course deals with the causes and variations of temperature and precipitation patterns over tens to millions of years, the mechanisms that drive them: air pollution, orbital and solar variation, plate tectonics, etc. It includes the nature of evidence for previous climatic conditions and the bases for predictions of future climate change. | GR | LE | Lecture

Fall 2022 | GR3530 | Readings in Greek Poetry | GR | Greek | 3 | Select readings in Greek epic and lyric poetry. Topics include structure and technique of oral epic, the didactic tradition, lyric and epic meters and diction, and the development of pastoral poetry. | UG | LE | Lecture

Fall 2022 | SLI1300 | Translation & Texts | SLI | Sign Language Interpreting | 3 | Analysis of spoken and signed texts for both meaning and form, comparing and contrasting the differences between ASL and English texts with an emphasis on discourse markers, register, topic shift, tense, pronominalization and affect. | UG | LE | Lecture

Fall 2022 | AES2210 | Evolution of USAF I | AES | Aerospace Studies | 1 | Air Force heritage and leaders; air and space power; communication skills. Leadership lab and two physical training sessions required per week. | UG | LE | Lecture

Fall 2022 | ENG3230 | British Texts: to 21st C | ENG | English | 3 | Representative works of major British writers from the middle of the 19th century through the beginning of the 21st century. | UG | LE | Lecture

Fall 2022 | ASM7973 | Aerospace Research | ASM | Aerospace Medicine | 1 | Independent research on a topic of aerospace medical relevance culminating with a formal presentation followed by a question and answer session. Additionally, final research reports and presentation material must be submitted electronically. | GR | IS | Independent Study

Fall 2022 | ME6880 | Experimental Nanoscience | ME | Mechanical and Materials Engr | 3 | This course will provide a series of laboratory experiments similar to the state-of-the-art R&D in nanotechnology and nanoscience. The experiments include 1) fabrication of nanomaterials such as metal nanoparticles and graphene nanoplatelets; 2) characterization of physical and chemical properties by using techniques such as Raman spectroscopy, atomic force microscopy, terahertz spectroscopy, electrochemical analyses etc; and 3) computational modeling of nanoscale physical phenomena. b>Department Managed Prerequisite(s): Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CHM 1210L Minimum Grade of D and Undergraduate level PHY 2400 Minimum Grade of D and Undergraduate level PHY 2400L Minimum Grade of D | GR | PKG | Combinatio

Fall 2022 | ED7840 | Inq to Foundations of Educ | ED | Education | 3 | An inquiry into the historical, philosophical, cultural, and social trends and issues in education in a democratic society | GR | LE | Lecture

Fall 2022 | SOC6620 | Elite Crime | SOC | Sociology | 3 | Theoretical and critical examination of the extent, cost, and control of elite crime and deviance. | GR | LE | Lecture
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Units</th>
<th>Title</th>
<th>Description</th>
<th>Offered By</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPH7230</td>
<td>2</td>
<td>HP with Indv with Disab</td>
<td>This course introduces the health disparities experience by individuals and explores the unique social, physical and political needs for health promotion interventions.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>EES4500</td>
<td>4</td>
<td>Carbonate Sediment/Petr</td>
<td>Origin, composition, and diagenesis of ancient and modern carbonate rocks. Macroscopic and microscopic identification of rock constituents. Survey of depositional models for modern carbonate environments, emphasizing Floridian and Bahamian carbonates facies.</td>
<td>UG LL Lecture/Lab Combinatior n</td>
</tr>
<tr>
<td>PSY4200</td>
<td>3</td>
<td>Cognitive Psych Cap</td>
<td>Communication-intensive seminar integrating knowledge on cognitive psychology. Topics will vary. Integrated Writing course.</td>
<td>UG SE Seminar</td>
</tr>
<tr>
<td>HST7300</td>
<td>3</td>
<td>Seminar Latin Amer Hist</td>
<td>Examines selected Latin American nations and regions (e.g., Mexico, Argentina) and particular topics (e.g., Authoritarianism) in detail. Topics vary.</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>PPH7020</td>
<td>3</td>
<td>Public Health Epidemiology</td>
<td>This is an introduction to epidemiology; including historical foundations, basic concepts, research designs, infectious diseases, screening, the influence of chance, bias, and confounding, and practical applications. The course discusses the calculation and interpretation of measures of frequency, association, and public health impact. Emphasis is placed on epidemiological principles, concepts, and methods used within public health settings. Students will complete an applied data project.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>KNH2610</td>
<td>2</td>
<td>Athletic Training</td>
<td>Introduction to athletic training and sports medicine for health and physical education.</td>
<td>UG LL Lecture/Lab Combinatior n</td>
</tr>
<tr>
<td>ART3280</td>
<td>3</td>
<td>Intermediate Drawing</td>
<td>Development of personal concepts and aesthetic expression in drawing. Emphasis on individualized approach to drawing problems that arise from the work of students. This course has a fee that is non-refundable once the term begins.</td>
<td>UG LB Lab</td>
</tr>
<tr>
<td>MGT4780</td>
<td>4</td>
<td>Honors Ind Study in Mgt</td>
<td>Honors: Independent Study in Management</td>
<td>UG IS Independen t Study</td>
</tr>
<tr>
<td>UVC1000</td>
<td>1</td>
<td>College Success Topics</td>
<td>Variable topics, including study strategies, returning to learning for veterans, returning to learning for adults, Phoenix program.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>IHE6990</td>
<td>1</td>
<td>Independent Study in IHE</td>
<td>Graduate independent studies in advanced industrial and human factors engineering. Topics vary.</td>
<td>GR IS Independen t Study</td>
</tr>
<tr>
<td>ATR7950</td>
<td>4</td>
<td>Clinical Practice V</td>
<td>Immersive clinical experience. Culminating experience allowing for mastery of all competencies and proficiencies throughout the athletic training program, including appropriate mental health counselling techniques and professional preparation.</td>
<td>GR IN Internship</td>
</tr>
<tr>
<td>MGT4200</td>
<td>3</td>
<td>Positive Grp &amp; Org Dvpt</td>
<td>Presents basic ideas, philosophies, theories and techniques of organizational development and change. Students will increase in their awareness and understanding of the complex problems an organization faces as it strives to compete in today's and tomorrow's world. They will be given opportunities to develop and practice skills needed to develop groups and organizations.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>SPN5120</td>
<td>5</td>
<td>Spanish Conversation II</td>
<td>Practice in oral use of Spanish emphasizing the culture of the Hispanic World.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>ACC4780</td>
<td>2</td>
<td>Hon: Ind Study in ACC</td>
<td>Research in accounting for fulfillment of the Honors Program project requirement.</td>
<td>UG IS Independen t Study</td>
</tr>
<tr>
<td>CEG4180</td>
<td>3</td>
<td>Obj-Oriented Progs&amp;Design</td>
<td>Study of object-oriented design and programming. Programming topics emphasize the core concepts of encapsulation, inheritance, polymorphism, and dynamic binding. Additional topics include class organization, software maintenance, and design of reusable components.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>PSY6930</td>
<td>3</td>
<td>Behav Neuro Ed Capstone</td>
<td>Communication-intensive seminar integrating knowledge on behavioral neuroscience education.</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>TH3450</td>
<td>3</td>
<td>Acting Ill</td>
<td>Training in approaches to a range of texts by playwrights from the early and late Modern period such as Ibsen, Chekhov, Shaw, Williams, Miller, O'Neill and others. Emphasis on understanding the acting conventions associated with these styles.</td>
<td>UG LL Lecture/Lab Combinatior n</td>
</tr>
<tr>
<td>EDL8720</td>
<td>2</td>
<td>Bltg-Level Leadership</td>
<td>Developing procedures of administering staff personnel aspects of school operation. Areas of recruitment, selection, induction, appraisal, development, compensation, and motivation are covered.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>EES4310</td>
<td>0.5</td>
<td>QA of Environmental Analysis</td>
<td>Fundamentals of Quality Control and Quality Assessment for analysis of environmental samples.</td>
<td>UG LL Lecture/Lab Combinatior n</td>
</tr>
<tr>
<td>STT4260</td>
<td>3</td>
<td>Survival Analysis</td>
<td>Censoring and truncation, survival and hazard functions, estimation and hypothesis tests, Cox proportional hazards model, diagnostics of the Cox model; state-of-the-art software for survival analysis models.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>ANT6040</td>
<td>2</td>
<td>Biomedical Experimental Design</td>
<td>Students must have completed Biomedical Review Article (ANT 6030) in order to take this course. ANT 6030 sets the foundation for what the Presentation will be focused on. Students will utilize the literature research completed in ANT 6030 to develop a research proposal that could, potentially, advance the selected biomedical field.</td>
<td>GR IS Independen t Study</td>
</tr>
<tr>
<td>Course</td>
<td>Code</td>
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<td>Credits</td>
<td>Prerequisites</td>
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<tr>
<td>REL3100</td>
<td></td>
<td>Topics in Judaism</td>
<td>3</td>
<td>Topics vary.</td>
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<tr>
<td>PLS4930</td>
<td>4930</td>
<td>Contemporary Problems</td>
<td>3</td>
<td>Advanced study in selected topics that frequently include new developments in the methodology or subject matter of the various sub fields of the discipline. Integrated Writing course.</td>
</tr>
<tr>
<td>ENG4940</td>
<td>4940</td>
<td>TESOL Internship</td>
<td>3</td>
<td>Supervision of students teaching English to speakers of other languages.</td>
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<tr>
<td>COM4620</td>
<td>4620</td>
<td>Mass Media Law</td>
<td>3</td>
<td>Laws and regulations affecting mass media.</td>
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<tr>
<td>PPH7820</td>
<td>7820</td>
<td>Cinci Ethics Issues&amp;Case Study</td>
<td>3</td>
<td>This course will introduce the student to a systematic method of clinical case analysis, followed by a survey of major clinical ethical issues. These will include reproductive ethics, shared decision-making and decisional capacity, neonatal and pediatric decision-making, substance abuse and addiction, end of life ethics including medically-assisted dying, and cultural and religious beliefs. Case studies will complement the historical and ethical analysis of each topic. Department Managed Prerequisite: Graduate level PPH 7810 Minimum Grade of D.</td>
</tr>
<tr>
<td>EED4200</td>
<td>4200</td>
<td>Math Methods P-5</td>
<td>3</td>
<td>Curricula and materials for teaching P-5 Mathematics emphasizing conceptual math, growth mindset, integration, and interventions to meet the needs of diverse learners. Includes development and implementation of assessments, lessons, and appropriate modifications.</td>
</tr>
<tr>
<td>HST3400</td>
<td>3400</td>
<td>Studies Asian History</td>
<td>3</td>
<td>Studies in Asian history, for example a survey of a sub-field or a specific topic. Topics vary.</td>
</tr>
<tr>
<td>ART6990</td>
<td></td>
<td>Applied Research Project</td>
<td>4</td>
<td>Involves students in the process of researching and writing a senior seminar paper. Integrated Writing course.</td>
</tr>
<tr>
<td>OIS1040</td>
<td>1040</td>
<td>Professional Devel IV</td>
<td>1</td>
<td>Professional development in office procedures, dress, personality, leadership, and other aspects of business development.</td>
</tr>
<tr>
<td>ME6880</td>
<td>6880</td>
<td>Powder Process Materials</td>
<td>3</td>
<td>Fundamental metallurgy and ceramic science of powder processing techniques. Details of current powder processing technology and methods. Hands-on laboratory experience with both metal and ceramic materials. Department Managed Prerequisite(s): Undergraduate level ME 2700 Minimum Grade of D and (Undergraduate level ME 3310 Minimum Grade of D or Graduate level ME 5310 Minimum Grade of D or Undergraduate level ME 3750 Minimum Grade of D or Graduate level ME 5750 Minimum Grade of D).</td>
</tr>
<tr>
<td>M&amp;I6990</td>
<td>6990</td>
<td>Special Problems in M&amp;I</td>
<td>2</td>
<td>Study of the physiological and biochemical processes to microorganisms and the host response to microbes. Department Managed Prerequisite(s): Undergraduate level ART 2120 Minimum Grade of D.</td>
</tr>
<tr>
<td>AFS4990</td>
<td>4990</td>
<td>Topics African Am</td>
<td>3</td>
<td>Historical and current issues in African and African American studies. Integrated Writing course.</td>
</tr>
<tr>
<td>ART6050</td>
<td>6050</td>
<td>Studies in Sculpture</td>
<td>3</td>
<td>Provides opportunities to explore special problems and approaches to sculpture including cross-media and interdisciplinary studies. Titles vary. Department Managed Prerequisite(s): Undergraduate level ART 2110 Minimum Grade of D.</td>
</tr>
<tr>
<td>REL3490</td>
<td>3490</td>
<td>Hindu Goddesses</td>
<td>3</td>
<td>Explores conceptualizations of the divine feminine in Hinduism, combines textual, historic, and anthropological resources to understand the nature of the various Hindu goddesses and how they are worshipped. Department Managed Prerequisite(s): Undergraduate level REL 2400 Minimum Grade of D.</td>
</tr>
<tr>
<td>CEG6230L</td>
<td>6230L</td>
<td>Intro Robotics Lab</td>
<td>1</td>
<td>Laboratory supporting EE 6560. Students will experience hands on learning in lab environment.</td>
</tr>
<tr>
<td>FIN3280</td>
<td>3280</td>
<td>Entrepreneuria I Finance</td>
<td>3</td>
<td>Financing of small and medium sized businesses from the perspective of both the entrepreneur and investors. Study how the financing decisions of small and medium sized private companies differ from those of public firms. They will also see how the valuation methods used in Financial Management I are applied in practice.</td>
</tr>
<tr>
<td>KNH1460A</td>
<td>1460A</td>
<td>Rape Def Strat: Interned</td>
<td>1</td>
<td>Intermediate level of skills and knowledge in Rape Defense Strategies: Intermediate. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>DAN2110</td>
<td>2110</td>
<td>Modern Dance II</td>
<td>3</td>
<td>Second-year intermediate modern dance technique class for pre-professional dancers. Emphasis on helping students become strong, versatile dancers by expanding their body’s range of motion while emphasizing alignment, coordination, strength and flexibility of the torso.</td>
</tr>
<tr>
<td>ART3130</td>
<td>3130</td>
<td>Studies Renaissance Art</td>
<td>3</td>
<td>General surveys and intensive studies of the period, major movements, and artists of the time. Integrated Writing course. Department Managed Prerequisite(s): Undergraduate level ART 2110 Minimum Grade of D and Undergraduate level ART 2120 Minimum Grade of D.</td>
</tr>
<tr>
<td>BIO5450</td>
<td>5450</td>
<td>Concepts in Bio I for ED</td>
<td>3.5</td>
<td>Introduction to biological concepts for Elementary and Middle School education majors. Structured around the National and Ohio State Science Standards and taught from an inquiry perspective. We examine approaches that attempt to teach science as a knowledge-building practice, i.e., by engaging in scientific investigations and participating in scientific practices such as designing an investigation, explanation, and working with scientific models.</td>
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<tr>
<td>Fall 2022</td>
<td>ME4570</td>
<td>4570 Energy Materials</td>
<td>ME Mechanical and Materials Engr</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>BIO3530L</td>
<td>3530L Exercise Physiology Lab</td>
<td>BIO Biology</td>
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<td>Fall 2022</td>
<td>PHL3150</td>
<td>3150 Philosophy of Language</td>
<td>PHL Philosophy</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>ACC3260</td>
<td>3260 Account Design Impl</td>
<td>ACC Accountancy</td>
<td>3</td>
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<td>Fall 2022</td>
<td>KNH7840</td>
<td>7840 Field Experience</td>
<td>KNH Kinesiology &amp; Health</td>
<td>4</td>
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<td>Fall 2022</td>
<td>EE7630</td>
<td>7630 Stochastic Signal Proc</td>
<td>EE Electrical Engineering</td>
<td>3</td>
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<td>Fall 2022</td>
<td>ME7780</td>
<td>7780 Ceramics-Advanced Appl</td>
<td>ME Mechanical and Materials Engr</td>
<td>3</td>
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<td>HST6820</td>
<td>6820 Military History</td>
<td>HST History</td>
<td>3</td>
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<td>Fall 2022</td>
<td>NUR4461</td>
<td>4461 LDshp&amp;Mgmt Train to Prof Nur</td>
<td>NUR Nursing</td>
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<td>Fall 2022</td>
<td>ED4610</td>
<td>4610 Practicum in TESOL</td>
<td>ED Education</td>
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<td>REL3530</td>
<td>3530 Asian Religious Ethics</td>
<td>REL Religion</td>
<td>3</td>
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<td>PHY7120</td>
<td>7120 Rel Quantum Mech</td>
<td>PHY Physics</td>
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<td>TH2500</td>
<td>2500 Script Analysis</td>
<td>TH Theatre</td>
<td>3</td>
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<td>Fall 2022</td>
<td>HST4220</td>
<td>4220 Russian/Soviet Hist</td>
<td>HST History</td>
<td>3</td>
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<td>BIO7890</td>
<td>7890 Continuing Registration</td>
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<td>6080 Radical Black Thought</td>
<td>PLS Political Science</td>
<td>3</td>
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<td>KNH1770A</td>
<td>1770A Water Safety Instruction</td>
<td>KNH Kinesiology &amp; Health</td>
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<td>PS18140</td>
<td>8140 Rorschach</td>
<td>PSI Professional Psychology</td>
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<td>Fall 2022</td>
<td>MKT7820</td>
<td>7820 Mkts Analytics: Tools</td>
<td>MKT Marketing</td>
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<td>Fall 2022</td>
<td>DAN3432</td>
<td>4320 Men's Ballet Dance Class</td>
<td>DAN Dance Class</td>
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<td>Fall 2022</td>
<td>BMS7860</td>
<td>7860 Lean Proc Improv for Eng</td>
<td>BMS Biomedical Sciences</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>MUA7200</td>
<td>7200</td>
<td>Applied Music</td>
<td>MUA</td>
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<td>Fall 2022</td>
<td>WGS4500</td>
<td>4500</td>
<td>Topics in Feminist Theory</td>
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<td>7202</td>
<td>Acute Adult Health Care II</td>
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<td>3710</td>
<td>Perception</td>
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<td>Roman Didactic Literature</td>
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<td>Teaching Games for Inclusion</td>
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<td>Fall 2022</td>
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<td>6640</td>
<td>Israel and Palestine</td>
<td>PLS</td>
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<td>Digital Course Development</td>
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<td>State Government</td>
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<td>6440</td>
<td>Studies in Latin American Literature</td>
<td>ENG</td>
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<td>Clinical Eng Dev World</td>
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<td>Data Structures &amp; Algorithms</td>
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<td>The Hispanic World</td>
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<td>Fall 2022</td>
<td>ENG4980</td>
<td>4980</td>
<td>English Honors Tutorial</td>
<td>ENG</td>
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<tr>
<td>Fall 2022</td>
<td>DAN3080</td>
<td>3080</td>
<td>Intermed Tap Dance II</td>
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<tr>
<td>Fall 2022</td>
<td>PLS6340</td>
<td>6340</td>
<td>Environmental Law Policy</td>
<td>PLS</td>
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<td>Fall 2022</td>
<td>EDL8720</td>
<td>8720</td>
<td>Ideas in Education</td>
<td>EDL</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW7420</td>
<td>7420</td>
<td>Advncd Polcy &amp; Social Just</td>
<td>SW</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR4820</td>
<td>4820</td>
<td>PopNursing Pol Sys</td>
<td>NUR</td>
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<tr>
<td>Fall 2022</td>
<td>GER3260</td>
<td>3260</td>
<td>Business German II</td>
<td>GER</td>
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<tr>
<td>Fall 2022</td>
<td>PHY1110L</td>
<td>1110L</td>
<td>Prin Physics Lab II</td>
<td>PHY</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PPH7210</td>
<td>7210</td>
<td>Maternal and Child Hlth</td>
<td>PPH</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CLS1500</td>
<td>1500</td>
<td>Greek and Roman Culture</td>
<td>CLS</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EGR7030</td>
<td>7030</td>
<td>Computation Egr Analysis</td>
<td>EGR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS7960</td>
<td>7960</td>
<td>Project - Cyber Security</td>
<td>CS</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY9000</td>
<td>9000</td>
<td>Multivariate Methods</td>
<td>PSY</td>
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<tr>
<td>Fall 2022</td>
<td>MTH6290</td>
<td>6290</td>
<td>Cryptography Data Secur</td>
<td>MTH</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL7400</td>
<td>7400</td>
<td>Legal &amp; Prof Issues Educ</td>
<td>EDL</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR7004</td>
<td>7004</td>
<td>Theoretical Findtns Nsg</td>
<td>NUR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>URS4340</td>
<td>4340</td>
<td>Fundraising/Grantwriting</td>
<td>URS</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO6750L</td>
<td>6750L</td>
<td>Ichthyology Lab</td>
<td>BIO</td>
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<tr>
<td>Fall 2022</td>
<td>ED7030</td>
<td>7030</td>
<td>LA and SS Grades 4/5</td>
<td>ED</td>
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<tr>
<td>Fall 2022</td>
<td>FR4640</td>
<td>4640</td>
<td>FR Canadian Lit &amp; Film</td>
<td>FR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MKT3700</td>
<td>3700</td>
<td>Create,Solve, Communicate</td>
<td>MKT</td>
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<tr>
<td>Fall 2022</td>
<td>ACC3010</td>
<td>3010</td>
<td>Intermediate Account I</td>
<td>ACC</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LDR7500</td>
<td>7500</td>
<td>Internship in Ldrship Dev</td>
<td>LDR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MTH3480</td>
<td>3480</td>
<td>Concepts in Calculus Educators</td>
<td>MTH</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LEP0340</td>
<td>0340</td>
<td>Integrated Skills - Level 3</td>
<td>LEP</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>IT3400</td>
<td>3400</td>
<td>3D Digital Modeling</td>
<td>IT</td>
</tr>
<tr>
<td>Course Code</td>
<td>Title</td>
<td>Instructor(s)</td>
<td>Units</td>
<td>Description</td>
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<tr>
<td>CS6970</td>
<td>Independent Study in CS</td>
<td></td>
<td>1</td>
<td>Independent study in computer science.</td>
</tr>
<tr>
<td>HEA9290</td>
<td>The Community College of Higher Education Admin</td>
<td>HEA</td>
<td>3</td>
<td>Explores the historical roots of the most exciting, important innovation in American higher education since the Second World War. The community college. How and why did they come into being, how do we really work, and how can we make them more effective?</td>
</tr>
<tr>
<td>SPN6110</td>
<td>SPN Instr Practicum I</td>
<td>SPN</td>
<td>1</td>
<td>Observe elementary and/or intermediate level classes; teach mini-units on culture, language, and literature using the Proficiency Method and the National Standards for Language Teaching.</td>
</tr>
<tr>
<td>CEG2900</td>
<td>Spec Topics in Comp Eng</td>
<td>CEG</td>
<td>1</td>
<td>Special topics in Computer Engineering.</td>
</tr>
<tr>
<td>PL56300</td>
<td>Am Govt and Politics Sem</td>
<td>PLS</td>
<td>3</td>
<td>Selected topics related to American government politics and processes. Emphasis on readings, discussion and research. Topics vary.</td>
</tr>
<tr>
<td>PL60300</td>
<td>Campagns and Elections</td>
<td>PLS</td>
<td>3</td>
<td>American political electoral institutions and processes, and campaigns.</td>
</tr>
<tr>
<td>HEA9291</td>
<td>Curriculum in Higher Ed</td>
<td>HEA</td>
<td>3</td>
<td>Introduction to patterns of curricular organization in the four-year college and university with attention to historical development and current models. Study of the issues governing curriculum planning, including the social, economic, political, historical, and philosophical contexts of which curriculum is formed and developed.</td>
</tr>
<tr>
<td>CNL4610</td>
<td>Principles of Counseling</td>
<td>CNL</td>
<td>3</td>
<td>An overview of major counseling principles, theories, techniques, historical foundations, and services.</td>
</tr>
<tr>
<td>LEPO625</td>
<td>Interim/High Intern Wnt Frkshp</td>
<td>LEP</td>
<td>0</td>
<td>Students further develop the writing skills which they are working on in their writing class. Students work in a computer-enabled classroom to draft, revise, edit, and format their writing assignments using typical American writing software. Students also get additional practice with topics from writing class.</td>
</tr>
<tr>
<td>EDT8590</td>
<td>LMS &amp; Evaluation</td>
<td>EDT</td>
<td>3</td>
<td>Examines the issues with integrating curriculum with educational technologies such as learning management systems and the knowledge and skills necessary to evaluate the quality of online courses.</td>
</tr>
<tr>
<td>APS4270</td>
<td>Community Leaders Serv Project</td>
<td>APS</td>
<td>3</td>
<td>Capstone learning experience for students in the Community Leadership track of the BTAS Degree. Students, under the guidance of a faculty member, will develop a group service project in partnership with community organizations and agencies.</td>
</tr>
<tr>
<td>FR6500</td>
<td>Grad Capstone Project</td>
<td>FR</td>
<td>1</td>
<td>Capstone project involving independent research with written and oral final presentations. Topics vary. Taught in French.</td>
</tr>
<tr>
<td>MUS6660</td>
<td>Vocal Literature II</td>
<td>MUS</td>
<td>3</td>
<td>Survey of vocal literature from the 18th through the 20th century emphasizing opera, and oratorio.</td>
</tr>
<tr>
<td>IHE7340</td>
<td>User Exp Ope Mobile Comptm</td>
<td>IHE</td>
<td>3</td>
<td>This course will introduce students to user experience and human factors concepts related to mobile computing. Application of mobile computing to different domains such as consumer electronics, education, healthcare, and military will be covered. The course will also provide overview of several industry practices. Students will learn to use mobile application frameworks and development environments.</td>
</tr>
<tr>
<td>SW6220</td>
<td>SW Practice II</td>
<td>SW</td>
<td>0</td>
<td>Approaches social work macro practice from an advanced generalist perspective as a way to engage organizations and communities in the larger society. Includes application, purposes and objectives of social work practice with organizations and communities with diverse populations and at-risk groups. Teaches skills to advance social and economic justice with clients in communities and organizations.</td>
</tr>
<tr>
<td>MTH5260</td>
<td>Num Mthds Comput Sci</td>
<td>MTH</td>
<td>3</td>
<td>Numerical methods for the sciences using modern programming languages. Solution of linear and nonlinear equations, symmetric matrix eigenvalue problems, interpolation and least squares. Initial value and boundary value problems for representative systems governed by ordinary and partial differential equations are also solved numerically. Department Managed Prerequisite(s): (Undergraduate level CS 1160 Minimum Grade of D or Undergraduate level CS 1180 Minimum Grade of D) and (Undergraduate level MTH 2350 Minimum Grade of D or Undergraduate level MTH 2330 Minimum Grade of D and Undergraduate level MTH 2530 Minimum Grade of D))</td>
</tr>
<tr>
<td>SW6880</td>
<td>Gero Cert Project</td>
<td>SW</td>
<td>3</td>
<td>Applied research in an agency setting that serves older adults under the guidance of the gerontology certificate director.</td>
</tr>
<tr>
<td>PL56819</td>
<td>PLS Internship</td>
<td>PLS</td>
<td>3</td>
<td>Internship for academic credit. Interns are expected to work at least 12-15 hours per week and write an assessment of the experience at the end of the semester.</td>
</tr>
<tr>
<td>ENG2320</td>
<td>Amer Acad Culture</td>
<td>ENG</td>
<td>3</td>
<td>Unique cultural norms within American higher education through critical analysis of the social, political, and economic factors which have influenced their development and continuous evolution.</td>
</tr>
<tr>
<td>RST2920</td>
<td>Regional Studies: India</td>
<td>RST</td>
<td>3</td>
<td>India's role in regional and global affairs and the impact of history, culture and politics in the development of India and South Asia. Integrated Writing course.</td>
</tr>
<tr>
<td>ME4610</td>
<td>Thermal-Fluids Lab</td>
<td>ME</td>
<td>2</td>
<td>Experiments in thermodynamics, fluid dynamics and heat transfer will be performed. Lab reports. Department Managed Prerequisite(s): Undergraduate level ME 3300 Minimum Grade of D and Undergraduate level ME 3600 Minimum Grade of D</td>
</tr>
<tr>
<td>ATR7550</td>
<td>Clinical Practice II</td>
<td>ATR</td>
<td>2</td>
<td>Clinical experience with a preceptor to practice, apply and master a variety of entry-level skills learned in the previous semester. Evaluation will occur in both the clinical and classroom settings.</td>
</tr>
</tbody>
</table>

**Course Codes:**
- **CS:** Computer Science
- **ME:** Mechanical Engineering
- **MECH:** Mechanical Engineering
- **ENG:** English
- **MTH:** Mathematics
- **HUM:** Human Development
- **RST:** Regional Studies
- **FL:** Foreign Languages
- **SW:** Social Work
- **FR:** French
- **MUS:** Music
- **EDT:** Educational Technology
- **LEAP:** Learning and Academic Programs
- **LE:** Lecture
- **GR:** Graduate
- **UG:** Undergraduate
- **IS:** Independent Study
- **GRN:** Graduate Research
- **CL:** Clinical
- **ATR:** Athletic Training
- **LEAD:** Leadership
- **PRACT:** Practicum
- **P/R:** Practicum/Research
- **INTER:** Internship
- **SPS:** Special Projects
- **SMP:** Special Topics
- **SEM:** Seminar
- **WORK:** Workshop
- **WRK:** Workship
- **CAP:** Capstone
- **DV:** Drafting
- **EDU:** Education
- **HUM:** Humanities
- **TECH:** Technology

**Notes:**
- **5260:** Numerical methods for the sciences using modern programming languages. Solution of linear and nonlinear equations, symmetric matrix eigenvalue problems, interpolation and least squares. Initial value and boundary value problems for representative systems governed by ordinary and partial differential equations are also solved numerically. Department Managed Prerequisite(s): (Undergraduate level CS 1160 Minimum Grade of D or Undergraduate level CS 1180 Minimum Grade of D) and (Undergraduate level MTH 2350 Minimum Grade of D or Undergraduate level MTH 2330 Minimum Grade of D and Undergraduate level MTH 2530 Minimum Grade of D))
- **2320:** Unique cultural norms within American higher education through critical analysis of the social, political, and economic factors which have influenced their development and continuous evolution. Department Managed Prerequisite(s): Undergraduate level ME 3300 Minimum Grade of D and Undergraduate level ME 3600 Minimum Grade of D
- **6110:** Experiments in thermodynamics, fluid dynamics and heat transfer will be performed. Lab reports. Department Managed Prerequisite(s): Undergraduate level ME 3300 Minimum Grade of D and Undergraduate level ME 3600 Minimum Grade of D
- **7550:** Clinical experience with a preceptor to practice, apply and master a variety of entry-level skills learned in the previous semester. Evaluation will occur in both the clinical and classroom settings.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Course Title</th>
<th>Description</th>
<th>Meeting Type</th>
<th>Notes</th>
<th>Prerequisites</th>
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</thead>
<tbody>
<tr>
<td>EE4830</td>
<td>4.000</td>
<td>Internship in EE</td>
<td>Practical work experience in undergraduate level electrical engineering.</td>
<td>UG</td>
<td></td>
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</tr>
<tr>
<td>PSY8000</td>
<td>4.000</td>
<td>Graduate HIF/O Seminar</td>
<td>Weekly discussions of topics in Human Factors or Industrial/Organizational Psychology.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>ME4900</td>
<td>4.000</td>
<td>Capstone Design in ME I</td>
<td>First of a two-course sequence affording students an experience in the methodology of solving realistic engineering design problems. Both courses require research of professional literature, application of systems engineering principles, and reporting of technical results. The student becomes acquainted with the demands of initiative, knowledge, intuition, and resourcefulness required for the successful solution of interdisciplinary open ended engineering problems. Integrated Writing course.</td>
<td>UG</td>
<td>PR</td>
<td>Practicum</td>
</tr>
<tr>
<td>EE4460L</td>
<td>4.460L</td>
<td>Microwave Egr II Lab</td>
<td>Hands-on experience with active component microwave devices, subsystems, and systems.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>PSI9670</td>
<td>9.670</td>
<td>Multiprofessional Ethics</td>
<td>Physicians, psychologists and clergy must interact with a variety of professionals in their practices and in their roles as community leaders. The course will address ethical issues of common concern to these professional groups. Discussing these issues in an interprofessional context will increase understanding of the issues themselves as well as increase appreciation for the tasks and problems of professional partners.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>EE4130</td>
<td>4.130</td>
<td>Cont Control Systems</td>
<td>Introduction to continuous control systems. Block diagrams and signal-flow graphs, electromechanical modeling, time response, root locus, and design of PID controllers.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>PSY5090</td>
<td>5.090</td>
<td>Psy of Health Behavior</td>
<td>Survey of the psychology of health care. The focus is both theoretical and practical, emphasizing the integration of physiological and psychological knowledge.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>BME3512</td>
<td>3.512</td>
<td>Bioelectronics II</td>
<td>Modern electronic devices/circuits applied to human systems / biomedical applications, instrumentation, data collection. Reactive components, filters, semiconductors, op-amps, digital logic circuits in biomedical applications and devices. Hands-on laboratory component provides experience in designing, assembling, testing, and employing amplifiers, filters, digital logic circuits used for collecting and analyzing data related to biomedical engineering applications.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>SCM4800</td>
<td>4.800</td>
<td>Special Topics in SCM</td>
<td>Focuses on one area of emerging trend of supply chain management.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>EP6000</td>
<td>6.000</td>
<td>Semiconductor Physics</td>
<td>Study of crystal structure, electronic band structure, charge carriers in semiconductors, generation, recombination, and motion of charge carriers, electrical and optical properties. Covers structure and characteristics of p-n junctions, bipolar transistors, field effect transistors, and other selected devices. Design and computer modeling of devices.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>URS2000</td>
<td>2.000</td>
<td>Cities of the World</td>
<td>Interdisciplinary view of growth and change in urban societies around the globe. Case studies illustrate how urbanization, technology development and the administrative state intertwine and affect economic and population growth and change. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>APS4030</td>
<td>4.030</td>
<td>APS Finance</td>
<td>A course to provide opportunities for students to gain knowledge, practice, and study in financial management. Focus on financial management concepts such as financial goal setting, financial statements, financial analysis, credit, insurance, and financial tools.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>GER6030</td>
<td>6.030</td>
<td>Adv. Studies: Lang &amp; Civ</td>
<td>Advanced level course on German or German-American literature, culture or film. Topics and Title vary. Taught in German.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>KNH1820</td>
<td>1.820</td>
<td>Winter Camping</td>
<td>Fundamental skills and knowledge of Winter Camping. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>SOCA4710</td>
<td>4.710</td>
<td>Victimology</td>
<td>A comprehensive examination of victims of crime in both the United States and internationally. Also explores the role and impact of the criminal justice system on crime victims.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>PHYS1500</td>
<td>5.150</td>
<td>Physics Instrument Lab</td>
<td>Familiarity with the fundamentals of analog electronics as applied to scientific instrumentation. Ability to converse with electronic technicians professionally. Ability to build prototype circuits and test their operation. Familiarity with a few sensors and with methods of signal to noise enhancement.</td>
<td>GR</td>
<td>LL</td>
<td>Lecture/ Lab Combinat i on</td>
</tr>
<tr>
<td>BMS7111</td>
<td>7.111</td>
<td>Adv Biomedical Signals</td>
<td>Characteristics and measurement of various biomedical signals, time-domain and frequency-domain, continuous and discrete signal representations; applications of digital and random signal processing methods to various biomedical signals.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>OL3040</td>
<td>3.040</td>
<td>Leading Teams</td>
<td>Strategies for leading effective teams, improving teamwork, and building collaboration toward commonly shared goals.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>LEP0030</td>
<td>0.030</td>
<td>Grammar - Level 3</td>
<td>Grammar for high-intermediate ESL students. This course has a fee that is non-refundable once the term begins.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>ATH2000</td>
<td>5.200</td>
<td>Sp Topics in Cult Anth</td>
<td>Selected topics concerning the method and theory of anthropological thought and relationships to the allied disciplines of economics, linguistics, art, politics, and history. Emphasis on current trends influencing research in cultural anthropology. Topics vary.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>ENG6460</td>
<td>6.460</td>
<td>Studies Lit Genre/Theme</td>
<td>Intensive study of literary genres (e.g., poetry, the novel, satire) or of literary themes. Intended to develop an understanding of formal and structural aspects of literature.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Course Code</td>
<td>Title</td>
<td>Instructor(s)</td>
<td>Credits</td>
<td>Description</td>
<td>Type</td>
<td>Lab</td>
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<tr>
<td>Fall 2022</td>
<td>KNH1555 GRACIE Self Def/Intermed</td>
<td>KNH</td>
<td>1</td>
<td>Intermediate level of skills and knowledge in GRACIE Self Defense: Intermediate. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EC3700 Intro Robotics Lab</td>
<td>EC</td>
<td>3</td>
<td>Analyzes environmental quality from both microeconomic and systems frameworks. Emphasizes effectiveness of alternative approaches to environmental problems, including specific solutions to particular problems and general approaches to broad problems.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE4560L Intro Robotics Lab</td>
<td>EE</td>
<td>1</td>
<td>Laboratory introducing plant modeling and controller design.</td>
<td>UG</td>
<td>LB</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES4740 Fund Occup Hth &amp; Safety</td>
<td>EES</td>
<td>3</td>
<td>Accident recognition, evaluation, and control in the work environment regarding hands-on equipment use. Emphasizes methods of inspection, accident investigation, and evaluation of accident programs.</td>
<td>UG</td>
<td>LL</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO1070L Health and Disease Laboratory</td>
<td>BIO</td>
<td>0</td>
<td>Required laboratory for BIO 1070.</td>
<td>UG</td>
<td>LB</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE4190 Rfnrc Lgth&amp;Nhlk Intl Cntrl</td>
<td>EE</td>
<td>3</td>
<td>Introduction to reinforcement learning and neural networks for intelligent control. Inspired by neuroscience and bio-inspired machine learning, combines deep neural networks with a reinforcement learning architecture that enables intelligent agents to learn from their actions similar to the way humans learn from experience. Emphasis on conceptual understanding of deep reinforcement learning algorithms and their applications to practical design or intelligent control systems.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4420 Criminal Justice System</td>
<td>PLS</td>
<td>3</td>
<td>Survey of the American criminal justice system concentrating on political aspects. Topics include police, judges, attorneys, supreme court decisions, crime, and public opinion.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>URS3200 Comm/Reg Planning I</td>
<td>URS</td>
<td>3</td>
<td>Development of city planning as a professional discipline that has significantly shaped urban spaces. Explores planning practices and theories related to spatial patterns and design, including location theory and democratic processes.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG7080 CMOS MxD Sig IC Des</td>
<td>CEG</td>
<td>3</td>
<td>Introduction to the techniques, limitations, and problems in the design of CMOS analog integrated circuits. Topics include CMOS analog circuit modeling and device characterization, analog CMOS subcircuits, CMOS amplifiers, CMOS comparators, and CMOS Op Amps, CMOS Analog to Digital Converters, and CMOS Digital to Analog Converters, and Switched Capacitor Circuits. Department Managed Prerequisite(s): (Graduate level EE 4540L Minimum Grade of D and Undergraduate level EE 4540L, Minimum Grade of D) or (Graduate level EE 6540 Minimum Grade of D and Graduate level EE 6540L Minimum Grade of D).</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH4570L Singing Mus Theatre V</td>
<td>TH</td>
<td>2</td>
<td>Private singing lessons for Musical theatre.</td>
<td>UG</td>
<td>ST</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME7120 Finite Elem Method Appl</td>
<td>ME</td>
<td>3</td>
<td>Concepts of dynamic analysis using the finite element method (FEM). Application of various computational techniques to dynamic structures and thermal systems including vehicle dynamics. 3 hours lecture, 2 hours lab. Department Managed Prerequisite(s): Graduate level ME 6120 Minimum Grade of D.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1060A Backpcking</td>
<td>KNH</td>
<td>1</td>
<td>Fundamental skills and knowledge of Backpacking. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MLB4711 Basic Micro Lab</td>
<td>MLB</td>
<td>1.5</td>
<td>Study of media composition and selection, biochemical techniques used to identify bacteria and related physiology, antibiotic susceptibility of bacteria, and discussion and identification of parasites. This course has a fee that is non-refundable once the term begins.</td>
<td>UG</td>
<td>LB</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATR3840 Lower Body Assessment</td>
<td>ATR</td>
<td>2</td>
<td>Clinical/practicum emphasizing lower body injury assessment skills.</td>
<td>UG</td>
<td>CL</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EED4210 EED Internship Part II</td>
<td>EED</td>
<td>1</td>
<td>Candidates, mentored by an elementary educator, assume additional responsibilities in planning, organizing, delivering, and assessing of instruction in a P-5 grade setting applying pedagogical content knowledge from elementary methods courses.</td>
<td>UG</td>
<td>IN</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EED8320 Action Resrch Practicum</td>
<td>EDL</td>
<td>1</td>
<td>Implement and analyze an action research project.</td>
<td>GR</td>
<td>LL</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>IHE4620 Innov &amp; Entrep Sem</td>
<td>IHE</td>
<td>1</td>
<td>Seminars meet once a week. Guest lecturers from high-tech companies provide insight on entrepreneurship and innovation. Students gain an understanding of the associated challenges, as well as the resources available within the community.</td>
<td>GR</td>
<td>SE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BMS5730 Adv Inorganic Chem II</td>
<td>BMS</td>
<td>2</td>
<td>Thorough examination of the chemistry of metals stressing the transition elements, ligand field theory, and mechanisms of inorganic reactions.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CTE3650 Essentials of CTE</td>
<td>CTE</td>
<td>3</td>
<td>Explores a historical timeline from vocational apprentice to CTE, federal legislation, legal issues, special needs, professional and student organizations, current issues, and the philosophy of CTE.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE6170 Digital Cont Sys</td>
<td>EE</td>
<td>3</td>
<td>Samples spectra and aliasing, analysis and design of digital control systems using root locus and transform techniques, discrete equivalents of continuous controller and quantization effects.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH3570 Singing Mus Theatre V</td>
<td>TH</td>
<td>2</td>
<td>Private singing lessons for musical theatre.</td>
<td>UG</td>
<td>ST</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY7030</td>
<td>0703</td>
<td>Personality Structure</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>ISE4960</td>
<td>4960</td>
<td>Dept Honors Research ISE</td>
<td>ISE</td>
<td>Industrial &amp; Systems Engr</td>
<td>1</td>
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<tr>
<td>Fall 2022</td>
<td>PHY6830</td>
<td>6830</td>
<td>Statistical Mechanics</td>
<td>PHY</td>
<td>Physics</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>PS18650</td>
<td>8650</td>
<td>Supervision</td>
<td>PSI</td>
<td>Professional Psychology</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>ASM7777</td>
<td>7777</td>
<td>Space Medicine</td>
<td>ASM</td>
<td>Aerospace &amp; Medicine</td>
<td>4</td>
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<tr>
<td>Fall 2022</td>
<td>KNH2410</td>
<td>2410</td>
<td>Intro to KNH</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ISE4420</td>
<td>4420</td>
<td>I&amp;E Seminar Series</td>
<td>ISE</td>
<td>Industrial &amp; Systems Engr</td>
<td>1</td>
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<td>Fall 2022</td>
<td>CEG3310L</td>
<td>3310L</td>
<td>Computer Organization &amp; Lab</td>
<td>CEG</td>
<td>Computer Engineering</td>
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<td>Fall 2022</td>
<td>ARA2020</td>
<td>2020</td>
<td>Intermediate Arabic II</td>
<td>ARA</td>
<td>Arabic</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>ENG4730</td>
<td>4730</td>
<td>TESOL Theory &amp; Culture</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>EE7550</td>
<td>7550</td>
<td>Trust Integr Ckt Design</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>EDS4610</td>
<td>4610</td>
<td>Intrvnt Spec Method &amp; Mod</td>
<td>EDS</td>
<td>Education &amp; Special Education</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>M&amp;I7720</td>
<td>7720</td>
<td>Mechanisms of Cell Death</td>
<td>M&amp;I</td>
<td>Microbiology &amp; Immunology</td>
<td>2</td>
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<td>Fall 2022</td>
<td>COM4640</td>
<td>4640</td>
<td>Media Criticism</td>
<td>COM</td>
<td>Communication</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>ART3580</td>
<td>3580</td>
<td>Intermediate Photo Practices</td>
<td>ART</td>
<td>Art</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>HST4400</td>
<td>4400</td>
<td>Asian History</td>
<td>HST</td>
<td>History</td>
<td>3</td>
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<td>Fall 2022</td>
<td>DAN1320</td>
<td>1320</td>
<td>Intermediate Jazz I</td>
<td>DAN</td>
<td>Dance</td>
<td>2</td>
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<tr>
<td>Fall 2022</td>
<td>PTX8120</td>
<td>8120</td>
<td>Case Studies CBRN Defense</td>
<td>PTX</td>
<td>Pharmacology/Toxiology</td>
<td>3</td>
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<td>Fall 2022</td>
<td>ISE4950</td>
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<td>Undergrad Resrch ISE II</td>
<td>ISE</td>
<td>Industrial &amp; Systems Engr</td>
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<td>Fall 2022</td>
<td>KNH1510</td>
<td>1510</td>
<td>Scuba Advanced Diver</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>2</td>
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<td>Fall 2022</td>
<td>TH3440</td>
<td>3440</td>
<td>Acting III</td>
<td>TH</td>
<td>Theatre</td>
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<tr>
<td>EC7830</td>
<td>Research in Econ III</td>
<td>7</td>
<td>Introductory course in microeconomics.</td>
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<tr>
<td>EC7910</td>
<td>Lecture Management</td>
<td>3</td>
<td>Focuses on the management of educational institutions.</td>
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<tr>
<td>IS 3730</td>
<td>Individual and Society</td>
<td>3</td>
<td>Explores the theoretical and practical aspects of individual and group dynamics.</td>
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<tr>
<td>ENG4620</td>
<td>Lecture</td>
<td>3</td>
<td>Development of writing skills.</td>
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<tr>
<td>PSY3420</td>
<td>Develop Psychopath</td>
<td>4</td>
<td>Conceptual and principles of psychological disorders.</td>
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<tr>
<td>SOCI510</td>
<td>Perception Methods</td>
<td>3</td>
<td>Applied psychology in perception.</td>
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<tr>
<td>SOC3510</td>
<td>Perception Methods</td>
<td>3</td>
<td>Development of perception skills.</td>
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<tr>
<td>CSD3220</td>
<td>Legal Issues Health Care</td>
<td>3</td>
<td>Legal principles of health care law.</td>
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<tr>
<td>ENG7910</td>
<td>Independent Study</td>
<td>3</td>
<td>Independent study in English.</td>
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<td>NUR8800</td>
<td>Sys Thinking Adv Pop Health</td>
<td>3</td>
<td>Systems thinking in population health.</td>
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<tr>
<td>MIS4700</td>
<td>Data Science for Bus App</td>
<td>3</td>
<td>Introduction to data science.</td>
<td></td>
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<tr>
<td>ISE4892</td>
<td>ISE Design II</td>
<td>3</td>
<td>Design of electrical systems.</td>
<td></td>
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<tr>
<td>ED3020</td>
<td>Legal Issues Health Care</td>
<td>3</td>
<td>Legal considerations in health care.</td>
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<td></td>
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<tr>
<td>SAA7620</td>
<td>Stu Affairs in Higher Ed Admin</td>
<td>3</td>
<td>Student affairs in higher education management.</td>
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<tr>
<td>SCM7990R</td>
<td>SCM Capstone Project Rec</td>
<td>3</td>
<td>Supply chain management project.</td>
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<tr>
<td>UHE8681</td>
<td>Prod &amp; Serv Sys</td>
<td>3</td>
<td>Production and service systems.</td>
<td></td>
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<tr>
<td>BMB3990</td>
<td>UG Teaching Assistant</td>
<td>3</td>
<td>Teaching assistant role.</td>
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<tr>
<td>LE1030</td>
<td>Intr to Crim Evid &amp; Proc</td>
<td>3</td>
<td>Introduction to criminal evidence.</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>MUA1410</td>
<td>Applied Music</td>
<td>4</td>
<td>Applied music in various fields.</td>
<td></td>
<td></td>
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<tr>
<td>KNN1380B</td>
<td>Kayaking Recreational</td>
<td>3</td>
<td>Kayaking for recreational purposes.</td>
<td></td>
<td></td>
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<tr>
<td>ENG4620</td>
<td>Visual Design Infor Architecture</td>
<td>3</td>
<td>Introduction to visual design.</td>
<td></td>
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<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Department</td>
<td>Prerequisites</td>
<td>Type</td>
<td>Description</td>
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<tr>
<td>EGR2980</td>
<td>3</td>
<td>Special Topics in EGR</td>
<td>Engineering</td>
<td></td>
<td>Lecture</td>
<td>Special topics in Engineering and Computer Science.</td>
</tr>
<tr>
<td>PHL3100</td>
<td>3</td>
<td>American Philosophy</td>
<td>Philosophy</td>
<td></td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>PSY6330</td>
<td>3</td>
<td>Personal Psych Cap</td>
<td>Psychology</td>
<td></td>
<td>Lecture</td>
<td>Communication-intensive seminar integrating knowledge on personality, including theory, research, and application.</td>
</tr>
<tr>
<td>MUE4700</td>
<td>1</td>
<td>Univ Symphony Orchestra</td>
<td>Music Ensembles</td>
<td></td>
<td>Lecture/Lab</td>
<td>Performs orchestral music of all styles and periods.</td>
</tr>
<tr>
<td>ED5040</td>
<td>3</td>
<td>MCE Gen ELA Inst</td>
<td>Education</td>
<td></td>
<td>Lecture</td>
<td>Methods for teaching 4th, 5th, and 6th grades language arts pertinent to the Ohio Learning Standards ELA with emphasis on content, developmentally appropriate pedagogy, curricula, and materials.</td>
</tr>
<tr>
<td>MUS1990</td>
<td>2</td>
<td>Intro to Music Educ</td>
<td>Music</td>
<td></td>
<td>Lecture</td>
<td>Introduction to the social, historical and philosophical foundations of music education. Overview of the music teaching profession, including basic terminology, necessary skills and dispositions, curricular issues, and instructional procedures.</td>
</tr>
<tr>
<td>CHI2020</td>
<td>3</td>
<td>Intermediate Chinese II</td>
<td>Chinese</td>
<td></td>
<td>Lecture</td>
<td>Grammar review, reading, and discussion of selected texts with practice in speaking and writing the language. Department Managed Prerequisite(s): Undergraduate level CHI 2010 Minimum Grade of D</td>
</tr>
<tr>
<td>M&amp;I7310</td>
<td>3</td>
<td>Virology</td>
<td>Microbiology &amp; Immunology</td>
<td></td>
<td>Lecture</td>
<td>This course provides an introduction to the field of virology. The course emphasizes the intrinsic properties of viruses that cause human disease and their interaction with cells, multiplication, genetics, and tumor induction.</td>
</tr>
<tr>
<td>ED6140</td>
<td>3</td>
<td>Reading Recovery II</td>
<td>Education</td>
<td></td>
<td>Lecture</td>
<td>Teachers deepen their understanding of Clay's literacy processing theory through contingent instruction based on student data while teaching Reading Recovery students. Key concepts include teaching for phrased reading, fluent processing and flexible problem solving.</td>
</tr>
<tr>
<td>PTX8000</td>
<td>1</td>
<td>Prin Biomedical Research</td>
<td>Pharmacology/Tox</td>
<td></td>
<td>Lecture</td>
<td>Principles of Biomedical Research is appropriate for students that will be involved in biomedical research. PBR provides a lecture and student interactive series designed to introduce students to the basics of biomedical research.</td>
</tr>
<tr>
<td>ART6080</td>
<td>3</td>
<td>Studies in Photography</td>
<td>Art</td>
<td></td>
<td>Lecture</td>
<td>Provides opportunities to explore special problems and approaches to photography includes cross-media and interdisciplinary studies. TItles vary.</td>
</tr>
<tr>
<td>MIST810</td>
<td>3</td>
<td>Special Topics in I.S.</td>
<td>Management Information Systems</td>
<td></td>
<td>Lecture</td>
<td>The Special Topics of Information Systems will offer cutting edge topics that focus on one area of emerging technology or information systems management.</td>
</tr>
<tr>
<td>HST4800</td>
<td>3</td>
<td>Comparative History</td>
<td>History</td>
<td></td>
<td>Lecture</td>
<td>Compares developments or movements in different parts of the world and/or different times in history such as revolutions, slave systems, religious movements, or other human experiences that transcend a particular time or place. Topics vary. Integrated Writing course.</td>
</tr>
<tr>
<td>IHE7050</td>
<td>3</td>
<td>Design &amp; Analysis Engine</td>
<td>Industrial &amp; Hum Fac Engr</td>
<td></td>
<td>Lecture</td>
<td>Introduction to planning and analysis of engineering experiments. Topics include basic statistics review, linear models, regression, analysis of variance, experiment designs, response surface methods, and engineering applications. Department Managed Prerequisite(s): Graduate level IHE 6150 Minimum Grade of C</td>
</tr>
<tr>
<td>PHL5050</td>
<td>3</td>
<td>19th Century Philosophy</td>
<td>Philosophy</td>
<td></td>
<td>Lecture</td>
<td>Study of 19th century European philosophy. Topics include the idealist rejection of materialism by Hegel and Schopenhauer, Kierkegaard and Nietzsche's critique of rationalism on behalf of concrete existence, and Marx's synthesis of idealisms optimism about humanity's ability to shape its world and a commitment to action over thought.</td>
</tr>
<tr>
<td>KNH1800B</td>
<td>3</td>
<td>Step Aerobics</td>
<td>Kinesiology &amp; Health</td>
<td></td>
<td>Lecture</td>
<td>Fundamental skills and knowledge of Step Aerobics: Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>PSY8260</td>
<td>3</td>
<td>Decision Making</td>
<td>Psychology</td>
<td></td>
<td>Lecture</td>
<td>The course covers the major theoretical viewpoints of judgment and decision making in the literature. The emphasis is on understanding the nature of human decision making and the implications on designing decision aids, training, and policy making. Department Managed Prerequisite(s): Undergraduate level PSY 3210 Minimum Grade of D or Undergraduate level PSY 4650 Minimum Grade of D</td>
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<tr>
<td>REL3200</td>
<td>3</td>
<td>Topics in Christianity</td>
<td>Religion</td>
<td></td>
<td>Lecture</td>
<td>Examination of selected topics related to the history and practice of Christianity.</td>
</tr>
<tr>
<td>REL3700</td>
<td>3</td>
<td>Topics in Biblical Lit</td>
<td>Religion</td>
<td></td>
<td>Lecture</td>
<td>Examines selected aspects of Biblical literature from both literary and historical perspectives to explore the possible structures, functions, and meanings of this literature for its original community.</td>
</tr>
<tr>
<td>NUR7001</td>
<td>3</td>
<td>Role Dev &amp; Ldrship</td>
<td>Nursing</td>
<td></td>
<td>Lecture</td>
<td>This course focuses on understanding and synthesizing concepts and theories that will facilitate professional role development and leadership in advanced nursing roles.</td>
</tr>
<tr>
<td>CHI3010</td>
<td>3</td>
<td>Advanced Chinese I</td>
<td>Chinese</td>
<td></td>
<td>Lecture/Lab</td>
<td>Development of linguistic proficiency through studying advanced reading and grammar patterns with emphasis on cultural aspects of communication. Taught in Chinese. If prerequisite not met, contact instructor for permission. Department Managed Prerequisite(s): Undergraduate level CHI 2020 Minimum Grade of D or AP Chinese Language &amp; Culture 4</td>
</tr>
<tr>
<td>GER2010</td>
<td>3</td>
<td>Intermediate German I</td>
<td>German</td>
<td></td>
<td>Lecture</td>
<td>Grammar review, reading, and discussion of selected texts with practice speaking and writing the language. Department Managed Prerequisite(s): Undergraduate level GER 1020 Minimum Grade of C or AP German Language 3</td>
</tr>
</tbody>
</table>
### Lecture 3

The course is designed for current and aspiring district-level administrators exploring the political and social forces influencing educational leadership. This course will emphasize the development of listening skills, public speaking skills, interviewing skills, and training skills. The course explores communication skills including training and development as a research and training focus for students to apply toward their chosen field. Students will learn how to identify and assess communication competence and how to develop training programs and presentations to enhance communication competency.

### Course Listing

<table>
<thead>
<tr>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
<th>Type</th>
<th>Description</th>
<th>Department</th>
<th>Grade</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>ME4750</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>Lecture</td>
<td>Survey of psychology’s role in understanding health, illness, and health behaviors. The focus is both theoretical and practical, emphasizing the integration of physiological and psychological knowledge. Required laboratory for ME 4750.</td>
<td>UG</td>
<td>LB</td>
<td>Lab</td>
</tr>
<tr>
<td>PSY3090</td>
<td>Psy of Health Behavior</td>
<td>3</td>
<td>Lecture</td>
<td>Exploration of philosophical theories of art, including such questions as: Are the fine arts different from mere entertainment? Are there objective standards? Is the goal of art to express emotion, communicate truth, or produce pleasure? Can immoral artworks be good art? Students will critically examine their artistic experiences and prejudices to develop a richer sense of why we value the arts. Readings will include historical works by thinkers such as Plato, Tolstoy, Nietzsche, and Walter Benjamin, as well as contemporary philosophers like Arthur Danto.</td>
<td>UG</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>STT4960</td>
<td>Topics in Stat and Prob</td>
<td>1</td>
<td>Independent Study</td>
<td>Topics in statistics and probability.</td>
<td>UG</td>
<td>IS</td>
<td></td>
</tr>
<tr>
<td>PHL5410</td>
<td>Aesthetics and PHL Art</td>
<td>3</td>
<td>Lecture/Lab</td>
<td>Exploration of philosophical theories of art, including such questions as: Are the fine arts different from mere entertainment? Are there objective standards? Is the goal of art to express emotion, communicate truth, or produce pleasure? Can immoral artworks be good art? Students will critically examine their artistic experiences and prejudices to develop a richer sense of why we value the arts. Readings will include historical works by thinkers such as Plato, Tolstoy, Nietzsche, and Walter Benjamin, as well as contemporary philosophers like Arthur Danto.</td>
<td>UG</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>PSY8120</td>
<td>Cortical Vis. Processes</td>
<td>3</td>
<td>Seminar</td>
<td>In-depth consideration of visual processes that originate in the cerebral cortex. Topics include binocular vision, motion perception, eye movements, and the application of these to human factors research.</td>
<td>GR</td>
<td>SE</td>
<td></td>
</tr>
<tr>
<td>ED6350</td>
<td>MCE: Math Cur &amp; Meth</td>
<td>3</td>
<td>Education</td>
<td>A study of curriculum, materials, and methodology for teaching mathematics in the middle school, grades 4 through 9. This includes lesson planning, assessment, differentiation, technology, and pedagogical content knowledge.</td>
<td>GR</td>
<td>LL</td>
<td>Lecture/Lab Combining</td>
</tr>
<tr>
<td>CLS4100</td>
<td>Adv Studies in Antiquity</td>
<td>3</td>
<td>Lecture</td>
<td>Literature, mythology, law and government, art and archaeology, culture and society. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>APS3010</td>
<td>Training &amp; Presentations</td>
<td>3</td>
<td>Lecture</td>
<td>This course will emphasize the development of listening skills, public speaking skills, interviewing skills, and training skills. The course explores communication skills including training and development as a research and training focus for students to apply toward their chosen field. Students will learn how to identify and assess communication competence and how to develop training programs and presentations to enhance communication competency.</td>
<td>UG</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>NUR6114</td>
<td>Nursing Elective</td>
<td>1</td>
<td>Lecture</td>
<td>Determined by the specific faculty offering the elective. The purpose of the graduate nursing elective is to offer undergraduate and graduate students opportunities to explore specific topics in greater depth.</td>
<td>GR</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>BIO3050</td>
<td>Animal Physiology</td>
<td>5</td>
<td>Lecture</td>
<td>Basic adaptive mechanisms and their coordination in the activities of the metazoa. Interdependency of form and function, of plasticity and homeostasis, and control mechanisms in animal physiology.</td>
<td>GR</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>URS7220</td>
<td>MPA Directed Study</td>
<td>3</td>
<td>Lecture</td>
<td>If previous knowledge and/or experience in a selected core course is demonstrated, URS 7220 may be substituted for the selected core course.</td>
<td>GR</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>PLS4320</td>
<td>Int'l Politics Cyber Security</td>
<td>3</td>
<td>Seminar</td>
<td>Examines the powers and politics of cyber security, and the international implications of political and legal issues of digital technology on individuals, institutions, and states. Explores cyber security in the context of national and international security, with emphasis on cyber espionage, cyber influence, and cyber conflict operations. Integrated Writing course.</td>
<td>UG</td>
<td>SE</td>
<td></td>
</tr>
<tr>
<td>GER3250</td>
<td>Business German I</td>
<td>3</td>
<td>Lecture</td>
<td>An introduction to the language of business German with insight into Germany's place in the global economy. Taught in German. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>REL5110</td>
<td>Judaism: Faith &amp; People</td>
<td>3</td>
<td>Lecture</td>
<td>Examination of Judaism as a religious faith and people, with special reference to formative historical, social, ethnic, and cultural factors.</td>
<td>GR</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>BIO7300</td>
<td>Cell Biology</td>
<td>3</td>
<td>Lecture</td>
<td>Topics include but not limited to a review of current understanding of the structure and function of cells, organelles and subcellular complexes.</td>
<td>GR</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>CS7850</td>
<td>Privacy Aware Computing</td>
<td>3</td>
<td>Lecture</td>
<td>This course will introduce the fundamental problems with data privacy and security in large scale data intensive, and the existing techniques used to protect data privacy and security. Students will be exposed to the latest research problems in this area.</td>
<td>GR</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>MUS4430</td>
<td>Vocal Pedagogy</td>
<td>2</td>
<td>Lecture</td>
<td>Familiarizes with physiological and psychological aspects of voice so they will better understand their own instruments and will be better equipped to teach others.</td>
<td>UG</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>IT2020</td>
<td>Photoshop II</td>
<td>3</td>
<td>Lecture/Lab</td>
<td>Advanced tools and techniques; topics include color harmonies, color value and saturation, color studies, various illusions created by contrast, value and saturation.</td>
<td>UG</td>
<td>LL</td>
<td>Lecture/Lab Combining</td>
</tr>
<tr>
<td>EE2000</td>
<td>Digital Design with HDL</td>
<td>3</td>
<td>Lecture</td>
<td>Introduction to combinational and synchronous sequential digital system design and optimization. Usage of structural hardware description language (HDL) with CAD tools for design and simulation in a field programmable gate array (FPGA) based laboratory environment. Design and testing of simple combinational and synchronous sequential circuits.</td>
<td>UG</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>CLS6810</td>
<td>Independent Study</td>
<td>1</td>
<td>Lecture</td>
<td>Faculty-directed, individualized study on student-selected topics. Limited to advanced students. Permission of faculty required.</td>
<td>GR</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>HST7750</td>
<td>Interpretation &amp; Exhibit</td>
<td>3</td>
<td>Lecture</td>
<td>Examines interpretation theory and practice. Design and construction of a museum exhibit including budgeting, research, artifact selection, media relations, educational programming and opening reception.</td>
<td>GR</td>
<td>LE</td>
<td></td>
</tr>
<tr>
<td>EDL9600</td>
<td>Pol &amp; Soc Contexts</td>
<td>3</td>
<td>Seminar</td>
<td>The course is designed for current and aspiring district-level administrators exploring the political and social forces shaping educational policy, instructional leadership, and classroom practice.</td>
<td>GR</td>
<td>SE</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHY1050</td>
<td>1050</td>
<td>Physics How Things Work</td>
<td>PHY</td>
<td>Physics</td>
<td>3</td>
<td>The physics associated with everyday scientific and technological phenomena and devices, including those associated with the generation, detection, and application of sound, light, and energy.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MGT4300</td>
<td>4300</td>
<td>Conflict &amp; Negotiation</td>
<td>MGT</td>
<td>Management</td>
<td>3</td>
<td>This course will cover some very basic work in the factors that cause conflict especially when dealing with managers, co-workers, employees, customers and all stakeholders in the business world, and most importantly provide techniques for resolving conflict.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>P&amp;N6300</td>
<td>6300</td>
<td>Med Cell Bio &amp; Phys</td>
<td>P&amp;N</td>
<td>Physiology &amp; Neuroscience</td>
<td>3</td>
<td>This is an interdisciplinary course that brings together fundamental concepts of biochemistry, molecular biology, cell biology and cell physiology of eukaryotic cells and applies this knowledge to explaining disease mechanisms.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PL57980</td>
<td>7980</td>
<td>Graduate Project</td>
<td>PLS</td>
<td>Political Science</td>
<td>1</td>
<td>Graduate research project that combines knowledge gained through coursework with field experience.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>WGS1000</td>
<td>1000</td>
<td>Sex Health &amp; Diversity</td>
<td>WGS</td>
<td>Women, Gender, and Sexuality</td>
<td>3</td>
<td>Introduces students to the interdisciplinary study of sexuality, focusing on sexual health from a diverse and comprehensive (i.e. including sexual pleasure) perspective. Topics covered may include: sexual anatomy and function, sexual and gender identity, sexual behavior, communication, and virginity.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TEN0850</td>
<td>0850</td>
<td>Basic Writing</td>
<td>TEN</td>
<td>Technical English</td>
<td>3</td>
<td>Grammar, sentence structure, paragraph development, essay writing, and proofreading. Cannot be applied toward graduation. Graded pass/unsatisfactory.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO6200</td>
<td>6200</td>
<td>Design Bio Experiments</td>
<td>BIO</td>
<td>Biology</td>
<td>3</td>
<td>This course presents an overview of effective sampling design for biological studies. It shows how to reconcile the peculiarities of biological data with the assumptions of statistical methods. It introduces some statistical methods useful in biology though rarely covered in introductory statistics courses. It outlines the major ways that data are analyzed in biology. It discusses ways to present results.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW3000</td>
<td>3000</td>
<td>Research Methods Human Service</td>
<td>SW</td>
<td>Social Work</td>
<td>3</td>
<td>Introduces education, health, and human services majors to research design, and the kinds of data produced, in describing, explaining, and understanding social problems.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MGT4810</td>
<td>4810</td>
<td>Internship</td>
<td>MGT</td>
<td>Management</td>
<td>3</td>
<td>Internship developed by the employer, student, and Department Internship Coordinator must agree on the parameters of the internship, including number of work hours, credit hours, internship objectives, methodology, timeline, and evaluation criteria.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO4460</td>
<td>4460</td>
<td>Advanced Cell Biology</td>
<td>BIO</td>
<td>Biology</td>
<td>3</td>
<td>Cell structure/function including the organization of the cell nucleus, DNA replication, multiple steps of gene expression, membrane composition and the importance of the cytoskeleton for cell motility, cell division and cell adhesion. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1210</td>
<td>1210</td>
<td>Fencing: Intermediate</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>3</td>
<td>Intermediate level of skills and knowledge in Fencing: Intermediate. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ISE4980</td>
<td>4980</td>
<td>Special Topics in ISE II</td>
<td>ISE</td>
<td>Industrial &amp; Systems Eng</td>
<td>1</td>
<td>Undergraduate independent studies in advanced Industrial and Systems Engineering. Topics vary.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MTH5320</td>
<td>5320</td>
<td>Complex Variables</td>
<td>MTH</td>
<td>Mathematics</td>
<td>3</td>
<td>Operations with complex numbers; derivatives; holomorphic functions and the Cauchy-Riemann equations; integrals; Cauchy’s Theorem, the Cauchy Integral Formula, and consequences; definitions and properties of elementary functions; power series; conformal maps; the calculus of residues.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS115OL</td>
<td>1150L</td>
<td>Intro to Comp Sci Lab</td>
<td>CS</td>
<td>Computer Science</td>
<td>0</td>
<td>Required laboratory for CS 1150.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG4120</td>
<td>4120</td>
<td>Managing Softw Dev Proc</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>3</td>
<td>Software development processes, models, and techniques necessary to successfully develop large-scale software. Presents the Capability Maturity Model (CMM). Each student will participate in the development of a software project. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL5550</td>
<td>5550</td>
<td>Human Rights in China</td>
<td>REL</td>
<td>Religion</td>
<td>3</td>
<td>Survey of the debate on human rights in China in relation to events in modern Chinese history such as: the fall of imperial rule, the Nationalist and Communist revolutions, the Cultural Revolution, and the Tiananmen Square massacre. Focus to include measuring the impact of Confucianism on current Chinese thinking regarding the themes of modernization, democratization, and human rights. Examination extends beyond China to other regions including Singapore, Taiwan, and Tibet.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MP3990</td>
<td>3990</td>
<td>Studies Select Subjects</td>
<td>MP</td>
<td>Motion Picture</td>
<td>1</td>
<td>Practical experience or research in topics in the field of motion pictures. Topics vary.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG6450</td>
<td>6450</td>
<td>Sensor Net and Systems</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>3</td>
<td>Introduction to wireless sensor networks. Overview of fundamental problems and their solutions. Focus on data aggregation, dissemination, localization, power management, security, algorithms and protocol. Students develop applications using Micaz motes and sensors running TinyOS operating systems.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO3150</td>
<td>3150</td>
<td>Invertebrate Zoology</td>
<td>BIO</td>
<td>Biology</td>
<td>3</td>
<td>Introduction to the diversity, ecology, and behavior of invertebrate animals. Major patterns in the evolution of form and function of animal bodies. Examination of old and new theories about relationships among animal groups.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUS1510</td>
<td>1510</td>
<td>Musicianship I</td>
<td>MUS</td>
<td>Music</td>
<td>1</td>
<td>The study of sight singing and techniques for hearing and notating melody and harmony.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE3310</td>
<td>Devices and Circuits</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>3</td>
<td>Introduction to basic solid-state electronic devices for discrete and integrated circuits. Major topics include carrier flow in semi-conductors, p-n junction theory, semiconductor diodes, bipolar junction transistors, field effect transistors, biasing, introduction to amplifiers, and frequency response.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED7990</td>
<td>Adv Study Seminar I</td>
<td>ED</td>
<td>Education</td>
<td>1</td>
<td>Midpoint seminar will focus on applying knowledge of preK-12 classrooms, developing capstone project, and completing mid-point key assessments.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LDR7030</td>
<td>Bldg Leadership Capacity</td>
<td>LDR</td>
<td>Leadership</td>
<td>3</td>
<td>Students will explore leadership capacity from assessment through development and its alignment with leadership competencies. This course has a fee that is non-refundable once the term begins.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SOC5730</td>
<td>Courts, Law, &amp; Justice</td>
<td>SOC</td>
<td>Sociology</td>
<td>3</td>
<td>Critical examination of the process, structure, and effects of the U.S. court system. Special attention will be given to issues of race, class, and other social factors that affect justice in society.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GER5830</td>
<td>Applied Elem Ger Instr</td>
<td>GER</td>
<td>German</td>
<td>1</td>
<td>Graduate student assist GER 1010 or GER 1020 instructors in conducting classes. Taught in German.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY4060</td>
<td>Independent Research</td>
<td>PSY</td>
<td>Psychology</td>
<td>1</td>
<td>Original problems for investigation. Graded pass/unsatisfactory.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME6720</td>
<td>Biomedical Optics</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>3</td>
<td>Quantitative biomedical optics, principles and applications of light propagation in biological tissues; optical imaging contrasts, light transport models including photon diffusion in living tissue; optical devices for light-based diagnostics for cancer detection, brain function monitoring; light-based therapies as alternative treatment for cancer and brain diseases.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GER4050</td>
<td>Early German Lit</td>
<td>GER</td>
<td>German</td>
<td>3</td>
<td>German literature from the earliest times to the Reformation.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>P&amp;N4420</td>
<td>Intro Neurophysiology</td>
<td>P&amp;N</td>
<td>Physiology &amp; Neuroscience</td>
<td>3</td>
<td>Physiological mechanisms that subserve the functions of the nervous system. Topics include the biophysics of neuronal information, intercellular communications, motor control, sensory systems, and developmental neurobiology.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG8940</td>
<td>Res Research in Comp Egr</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>1</td>
<td>Research on the Ph.D. dissertation topic taken in residence.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PS11170</td>
<td>Trauma Theor Asmt Interv</td>
<td>PSI</td>
<td>Professional Psychology</td>
<td>3</td>
<td>Introduction to the psychology of trauma, covering history of trauma theories, etiology, neurobiological impact of trauma across the life-span, types of trauma, symptoms, diagnosis, and treatment of trauma-responses in cultural context.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HST4650</td>
<td>19th-Century US History</td>
<td>HST</td>
<td>History</td>
<td>3</td>
<td>Examines distinct periods in the 19th century (e.g., Civil War and reconstruction) and major topics such as slavery. Topics vary. Integrated Writing course.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME4960</td>
<td>Dept Honors Research BME</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>1</td>
<td>Research in biomedical engineering in fulfillment of departmental honors requirements. Topics vary.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MP2310</td>
<td>Hist of Motion Picture I</td>
<td>MP</td>
<td>Motion Picture</td>
<td>3</td>
<td>Historical development of the art of the film from 19th-century scientific experiments through the silent era and the advent of sound to mid 20th century. Examination of technical, social, economic, and cultural factors that have shaped motion pictures. Integrated Writing course.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GER4340</td>
<td>Thomas Mann</td>
<td>GER</td>
<td>German</td>
<td>3</td>
<td>Studies of the writings of Thomas Mann.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SL1453</td>
<td>Deaf-Blind Interpreting</td>
<td>SLI</td>
<td>Sign Language Interpreting</td>
<td>3</td>
<td>Overview of role of the interpreter and necessary skills when working with individuals who are Deaf-Blind. Introduction to etiology of deaf-blindness, its impact on communication, and basic sighted-guide techniques. Focus on tactile interpreting skills.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LE1120</td>
<td>Police Academy 3</td>
<td>LE</td>
<td>Law Enforcement</td>
<td>3</td>
<td>Ohio Police Training Academy curriculum. Human relations and safety issues. Study of law on search and seizure, interview and interrogation, civil liability and use of force, and testifying. Requires admission to Grand Lake Law Enforcement Academy.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1440</td>
<td>Phys Ed for Disabled</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Physical Education for Disabled. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG6400L</td>
<td>6400L Comp Networks &amp; Security Lab</td>
<td>CEG Computer Engineering</td>
<td>0</td>
<td>Required laboratory for CEG 6400.</td>
<td>GR</td>
<td>LB</td>
</tr>
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<tr>
<td>Fall 2022</td>
<td>CEG4981</td>
<td>4981 Team Projects II</td>
<td>CEG Computer Engineering</td>
<td>3</td>
<td>CEG 4981 is a continuation of CEG 4980 and must be taken in the term immediately following CEG 4980. Project groups maintain their composition and project from CEG 4980.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>RHB7300</td>
<td>7300 Epidemiology Addictions</td>
<td>RHB Rehabilitation</td>
<td>3</td>
<td>Theory and practice of a variety of treatment modalities and settings. Explores interdisciplinary treatment planning, evidence based practices, family, individual and group interventions, systems, holistic intervention strategies, recovery supports including self-help groups.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>IDL7010</td>
<td>7010 Digital Teaching Tools</td>
<td>IDL Instructional Design &amp; Learning</td>
<td>3</td>
<td>This class is designed for educators to learn how to integrate educational technology tools in the classroom to enhance students’ learning.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED7830</td>
<td>7830 Adv Educational Psych</td>
<td>ED Education</td>
<td>3</td>
<td>Gain an advanced understanding of learning processes, student motivation, and educational assessment based on theoretical principles from the field of educational psychology.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL8340</td>
<td>8340 Coaching and Mentoring</td>
<td>EDL Educational Leadership</td>
<td>3</td>
<td>Developing knowledge, skills, and dispositions necessary for school leaders to provide effective coaching and mentoring focused on improving teaching and learning for all students.</td>
<td>GR</td>
<td>LL</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM1210</td>
<td>1210 General Chemistry I</td>
<td>CHM Chemistry</td>
<td>3</td>
<td>Structure and properties of atoms and molecules and their chemical behavior and reactivity.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE7920</td>
<td>7920 Part-Time Grad in EE</td>
<td>EE Electrical Engineering</td>
<td>1</td>
<td>Practical work experience in graduate level electrical engineering.</td>
<td>GR</td>
<td>IN</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED4220</td>
<td>4220 MCE Teach: Prnc/Prac/Lrn</td>
<td>ED Education</td>
<td>3</td>
<td>Focuses on the historical and underlying philosophy of the middle school concept based on the unique nature of pre-adolescents and adolescents. Current instructional and curricular practices are viewed in relation to this philosophy.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FAS2500</td>
<td>2500 Food Chem and Analysis</td>
<td>FAS Food and Agricultural Systems</td>
<td>3</td>
<td>Chemistry of various food components, and methods of analysis.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED4420</td>
<td>4420 Professional Seminar/MCE</td>
<td>ED Education</td>
<td>3</td>
<td>Prepares candidates for their first year of teaching. Topics include: classroom management, collaboration with others, school policies and procedures, resident educator program, resume building, licensure information, interviewing techniques, and creating a portfolio.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>DAN3420</td>
<td>3420 Choreography II</td>
<td>DAN Dance</td>
<td>2</td>
<td>Application of compositional concepts and principles of choreography. Solo studies, small group choreography and improvisation culminating in a final choreographic junior piece. Emphasis on written and verbal analysis of the process of creating dance.</td>
<td>UG</td>
<td>ST</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME6704L</td>
<td>6704L Adv Med Imaging Lab</td>
<td>BME Biomedical Engineering</td>
<td>0</td>
<td>Required laboratory for BME 6704.</td>
<td>GR</td>
<td>LB</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH3220</td>
<td>3220 Scene Painting II</td>
<td>TH Theatre</td>
<td>3</td>
<td>Further development of skills taught in Scene Painting I, with addition of translucencies, portraiture, landscape, poster graphics, and carving architectural detail in foam.</td>
<td>UG</td>
<td>LL</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MTH7000</td>
<td>7000 Prof Experience Grad Stu</td>
<td>MTH Mathematics</td>
<td>1</td>
<td>Participation in seminars related to teaching and research.</td>
<td>GR</td>
<td>SE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>IHE6330</td>
<td>6330 Erg in Occup Sfy &amp; Hlth</td>
<td>IHE Industrial &amp; Hum Fac Engr</td>
<td>3</td>
<td>Discusses and demonstrates the role and responsibility of engineers in occupational safety and health related issues. Focuses on human factors engineering design principles as a proactive approach for controlling occupational injuries.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LEP0460</td>
<td>0460 Academic Success - Level 4</td>
<td>LEP LEAP</td>
<td>0</td>
<td>Participants will learn how to succeed academically by practicing skills and strategies for understanding academic lectures, by practicing note-taking and organization, and by practicing advanced academic vocabulary. Listening comprehension will be improved through a variety of interactive listening and discussion activities based on academic lectures and conversations. For advanced ESL students. This course has a fee that is non-refundable once the term begins.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSIB410</td>
<td>9410 Advanced Group Therapy</td>
<td>PSI Professional Psychology</td>
<td>3</td>
<td>Addresses practical and clinical aspects of conducting group therapy, with an emphasis on skill building, assessment techniques from the CORE-R Battery, and multicultural applications.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>RHB6700</td>
<td>6700 Rehab Workshop</td>
<td>RHB Rehabilitation</td>
<td>1</td>
<td>Workshop courses to meet the needs of rehabilitation professionals as well as providing courses on as needed basis to meet special interest needs. Titles vary.</td>
<td>GR</td>
<td>SE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BMS7780</td>
<td>7780 Cell Biology</td>
<td>BMS Biomedical Sciences</td>
<td>3</td>
<td>Topics include but not limited to a review of current understanding of the structure and function of cells, organelles and subcellular complexes.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENGL3220</td>
<td>3220 British Texts: to1870</td>
<td>ENG English</td>
<td>3</td>
<td>Representative works of major British writers of the later 17th to later 19th centuries.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>RHB3050</td>
<td>3050 Addictions &amp; Application</td>
<td>RHB Rehabilitation</td>
<td>3</td>
<td>Provides an overview of the historical, attitudinal, social-cultural, and psycho-physiological impact of addictions. Special attention given to emerging abuse and dependency issues and interventions used to address them.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ABS7790</td>
<td>7790</td>
<td>Practicum in ABS</td>
<td>ABS</td>
<td>Applied Behavioral Science</td>
<td>1</td>
<td>On-site participation of students in selected behavioral science projects. Jointly supervised by faculty and on-site personnel.</td>
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</tr>
<tr>
<td>Fall 2022</td>
<td>ART4280</td>
<td>4280</td>
<td>Advanced Drawing</td>
<td>ART</td>
<td>Art</td>
<td>3</td>
<td>Explores the structure and interrelationships of visual form in drawing, painting, and sculpture. Principal historical modes of drawing examined. This course has a fee that is non-refundable once the term begins.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>IT2150</td>
<td>2150</td>
<td>Design Integration</td>
<td>IT</td>
<td>Information Technology</td>
<td>4</td>
<td>Skills needed to integrate essential software into projects that conform to design principles and client expectations.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ECO5500</td>
<td>5500</td>
<td>Teach Econ Use Child Lit</td>
<td>ECO</td>
<td>Center for Economic Educ.</td>
<td>2</td>
<td>This course is designed to help teachers with little economic education learn how to teach economics using children’s literature. Topics include scarcity, decision making, marginal cost/benefit, role of incentives, trade, money and entrepreneurship. This course has a fee that is non-refundable once the term begins.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BMB4880</td>
<td>4880</td>
<td>Ind Read Biochem Mol Bio</td>
<td>BMB</td>
<td>Biochem &amp; Molecular Biology</td>
<td>1</td>
<td>Review of current literature in biochemistry and molecular biology.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1180</td>
<td>1180</td>
<td>Dance: Swing</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Dance: Swing. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PPH1080</td>
<td>1080</td>
<td>Introduction to Public Health</td>
<td>PPH</td>
<td>Population &amp; Public Health</td>
<td>3</td>
<td>Concepts and practices in public health. Students will explore the history, purposes, structures, policies, and programs that contribute to the effort to create an environment that promotes healthy living, with application to domestic and international circumstances.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GEO4500</td>
<td>4500</td>
<td>Sem. in Urban Geography</td>
<td>GEO</td>
<td>Geography</td>
<td>3</td>
<td>Geographic perspectives of urban development. Topics vary from current issues to advances in theory and methods.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>APS4000</td>
<td>4000</td>
<td>APS Personnel Management</td>
<td>APS</td>
<td>Applied Studies</td>
<td>3</td>
<td>A course to provide opportunities for students to gain knowledge, practice, and study in technical personnel management. Focus on fundamentals such as organizational analysis, employee selection, training, benefits, employee relations, etc. as they apply to business and organizational setting.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HST2110</td>
<td>2110</td>
<td>American History to 1877</td>
<td>HST</td>
<td>History</td>
<td>5</td>
<td>Thematic survey of events, forces, groups, and individuals that contributed to and helped to shape an American civilization on the North American continent. Colonial foundations to 1877.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>STT3960</td>
<td>3960</td>
<td>Topics in Stat and Prob</td>
<td>STT</td>
<td>Statistics</td>
<td>1</td>
<td>Titles vary.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MGT4900</td>
<td>4900</td>
<td>Character &amp; Comp II</td>
<td>MGT</td>
<td>Management</td>
<td>3</td>
<td>Drawing on their management studies, students will integrate essential managerial competencies and their personal strengths to develop a plan for their career as a manager and leader.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG8830</td>
<td>8830</td>
<td>Adv Fiction Wrtg Seminar</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
<td>Advanced practice in writing and revising fiction, refining craft and style, with the aim of producing fiction of superior merit; group discussion of manuscripts, and reading and discussion of contemporary fiction.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FRA4930</td>
<td>4930</td>
<td>Franco-American Films</td>
<td>FR</td>
<td>French</td>
<td>3</td>
<td>This course will examine the Americanization of selected French language films as a powerful tool for cross-cultural comparison. Film pairs analyzed may include Breathless and À Bout de souffle, Les Visiteurs and Just Visiting, La Femme infidèle and Unfaithful, etc. Taught in French. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDT8950</td>
<td>8950</td>
<td>Adm &amp; Superv of Ed Tech</td>
<td>EDT</td>
<td>Educational Technology</td>
<td>3</td>
<td>Covers leadership theory and networking; qualifications and duties of the director; planning and administering the program; preparing the budget; buying equipment and handling materials; in-service training and evaluation of the program.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CNL7700</td>
<td>7700</td>
<td>Indep Study Minor Prob</td>
<td>CNL</td>
<td>Counseling</td>
<td>1</td>
<td>Planned reading and/or project under the guidance of a Department of Human Services faculty member.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL9500</td>
<td>9500</td>
<td>Practicum II: CIPD</td>
<td>EDL</td>
<td>Educational Leadership</td>
<td>3</td>
<td>The practicum provides significant opportunities for candidates to synthesize and apply the knowledge and skills identified in the district-level standards through substantial, sustained, standards-based work in real settings.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED6060</td>
<td>6060</td>
<td>Reading and Literacy I</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>Introduction to the content knowledge of the structure of literacy and reading/writing instruction. Candidates explore instructional strategies for reading and writing and the theory that supports scientifically based instruction.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1000</td>
<td>1000</td>
<td>Special Topics</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Activity course for a variety of content areas</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES6320</td>
<td>6320</td>
<td>Env Microbiology</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>3</td>
<td>Examines how microorganisms interact with abiotic resources to affect natural and human-created systems, using a multidisciplinary approach drawing on tools from microbiology, aquatic chemistry, soil science, limnology and oceanography, analytical chemistry, ecology, geology, and biochemistry.</td>
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<tr>
<td>Fall 2022</td>
<td>BME6460</td>
<td>6460</td>
<td>Nanomed Fundamentals</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>3</td>
<td>The purpose of this introductory course is to provide an overview of the distinctive features of nanotechnology and their application to bio-medical problems. The course contrasts macro/micro/nano to bring out the unique properties of nanotechnology in nanomedicine. Cutting-edge nanomedical technologies for sensing and imaging, drug delivery, and therapeutic applications will be addressed.&lt;b&gt; Department Managed Prerequisite(s): (Undergraduate level BME 4440 Minimum Grade of C or Graduate level BME 6440 Minimum Grade of C) and (Undergraduate level ANT 2120 Minimum Grade of D or Undergraduate level ANT 3120 Minimum Grade of D or Graduate level ANT 5120 Minimum Grade of D)&lt;/b&gt;</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUS4410</td>
<td>4410</td>
<td>Lecture Recital</td>
<td>MUS</td>
<td>Music</td>
<td>1</td>
<td>Public performance and lecture on a topic relevant to the performer.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUA2420</td>
<td>2420</td>
<td>Applied Music</td>
<td>MUA</td>
<td>Music: Applied Music</td>
<td>4</td>
<td>Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL7320</td>
<td>7320</td>
<td>Impmt &amp; Analyze Rch</td>
<td>EDL</td>
<td>Educational Leadership</td>
<td>1</td>
<td>Implement and analyze a research project.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG6330</td>
<td>6330</td>
<td>Micropro Embedded System</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>4</td>
<td>Introduction to small, special-purpose microprocessor systems. Topics include hardware design issues, software design and implementation, and real-time operating systems.&lt;b&gt; Department Managed Prerequisite(s): Undergraduate level CEG 3320 Minimum Grade of D or Graduate level CEG 5320 Minimum Grade of D&lt;/b&gt;</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL3780</td>
<td>3780</td>
<td>Apocalypse of John</td>
<td>REL</td>
<td>Religion</td>
<td>3</td>
<td>A literary and historical study of the Book of Revelation in its original setting with a consideration of its ongoing influence.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MP4810</td>
<td>4810</td>
<td>Practicum in Filmmaking</td>
<td>MP</td>
<td>Motion Picture</td>
<td>3</td>
<td>Credit for professional-caliber production work in a chosen role which may include developing a fully formed feature documentary treatment; writing a feature-length screenplay; or working on a senior practicum production as writer and/or director, director of photography, art director or editor.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME7330</td>
<td>7330</td>
<td>Convective Heat &amp; Mass</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>Heat and mass transfer analysis within conductors and over submerged objects for laminar and turbulent flows. Film condensation and boiling.&lt;b&gt; Department Managed Prerequisite(s): Undergraduate level ME 3360 Minimum Grade of D or Graduate level ME 5360 Minimum Grade of D&lt;/b&gt;</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY4941</td>
<td>4941</td>
<td>Anim Beh Cp w/FldStdyAbz</td>
<td>PSY</td>
<td>Psychology</td>
<td>5</td>
<td>Communication-intensive seminar integrating knowledge on animal behavior. Topics will include evolution, natural and sexual selection, and mating systems. Integrated Writing course.). It also includes an educational trip abroad (e.g., Poland) in order to perform the critical experiential part of course work in engaging and interesting environment while at the same time being exposed to international scientific community and cooperation.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ACC3020</td>
<td>3020</td>
<td>Intermediate Acc II</td>
<td>ACC</td>
<td>Accountancy</td>
<td>3</td>
<td>Financial accounting concepts applied to complex measurement problems and the preparation of financial statements.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS7070</td>
<td>7070</td>
<td>Numerical Analysis II</td>
<td>CS</td>
<td>Computer Science</td>
<td>4</td>
<td>Finite difference and finite element methods for partial differential equations, including elliptic, parabolic and hyperbolic.&lt;b&gt; Department Managed Prerequisite(s): Graduate level MTH 5330 Minimum Grade of D and Graduate level MTH 6550 Minimum Grade of D&lt;/b&gt;</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CL4220</td>
<td>4220</td>
<td>Laboratory Management</td>
<td>CL</td>
<td>Clinical Laboratory Science</td>
<td>1.5</td>
<td>Principles of education, laboratory management, computer application and completion and presentation of a scientific project. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDS6420</td>
<td>6420</td>
<td>Curriculum Meth/Mat Mi</td>
<td>EDS</td>
<td>Education - Special Education</td>
<td>3</td>
<td>Methods/materials for assessing/teaching individuals with moderate/intensive needs in multiple environments. Focus on research-based practices resulting in high quality of life. Thirty hours of field experience with individuals with moderate/intensive needs required.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM1210L</td>
<td>1210L</td>
<td>General Chemistry Lab I</td>
<td>CHM</td>
<td>Chemistry</td>
<td>2</td>
<td>Examination of the principles of General Chemistry I through experimentation.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO3450</td>
<td>3450</td>
<td>Concepts Life Sci Educators</td>
<td>BIO</td>
<td>Biology</td>
<td>4</td>
<td>Introduction to educational concepts for Elementary and Middle School Education Majors. Structured around the National and Ohio State Science Standards and taught from an inquiry perspective. Experiences approaches that attempt to teach science as a knowledge-building practice, i.e., by engaging in scientific investigations and participating in scientific practices such as designing an investigation, explanation, and working with scientific models.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH3720</td>
<td>3720</td>
<td>MT History/Lit</td>
<td>TH</td>
<td>Theatre</td>
<td>3</td>
<td>Covers history of Musical Theatre from its roots in early lyric theatre and popular variety entertainments to the birth of the modern Book Musical. Reading, viewing and discussion of significant examples from major periods while studying historical, artistic and social contexts for these works. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PTX7120</td>
<td>7120</td>
<td>Journal Club</td>
<td>PTX</td>
<td>Pharmacology/Toxiology</td>
<td>1</td>
<td>WSU faculty driven course. Students are presented with current literature on around a specific topic. The students will give presentations on the material.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HST6450</td>
<td>6450</td>
<td>Middle Eastern History</td>
<td>HST</td>
<td>History</td>
<td>3</td>
<td>Examines the Middle East from the 7th century to the present. Topics vary.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Number</td>
<td>Title</td>
<td>Credits</td>
<td>Description</td>
<td>Type</td>
<td>Prerequisites</td>
<td></td>
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<tr>
<td>JPN3700</td>
<td>3700</td>
<td>Internship in Japanese</td>
<td>3</td>
<td>Supervised use of Japanese in workplace settings. Must complete an application available from the Department of Modern Languages. Minimum time commitment 135 hours a semester, including a minimum of 120 hours of on-site work. Senior standing and advisor permission required.</td>
<td>UG IN</td>
<td>Internship</td>
<td></td>
</tr>
<tr>
<td>ME6200</td>
<td>6260</td>
<td>Intro Robotics</td>
<td>3</td>
<td>(Also listed as CEG 6660 and ME 6566.) An introduction to the mathematics of robots. Topics covered include coordinate systems and transformations, manipulator kinematics and inverse kinematics, Jacobians, dynamic and trajectory planning.</td>
<td>GR LE</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>MTH4520</td>
<td>4520</td>
<td>Modern Algebra II</td>
<td>3</td>
<td>Examples and elementary properties of abstract algebraic structures, including groups, rings, integral domains, and fields.</td>
<td>UG LE</td>
<td>Lecture</td>
<td></td>
</tr>
</tbody>
</table>
| BIO6070     | 6070   | Wetlands Biology | 5 | Ecological investigation of wetlands of the U.S. with emphasis on the Midwest. Primarily field oriented with some lecture. Covers soils, vegetation, hydrology, conservation, and restoration. Requires two weekend trips and written report. | GR LL | Lecture/Lab Combinat
| OL3030      | 3030   | Interpersonal Leadership | 3 | Focus on developing and using emotional intelligence (EI) competencies for effectively leading others. | UG LE | Lecture |
| CHM3520     | 3520   | Physical Chemistry II | 3 | Theoretical aspects of chemistry including quantum chemistry, spectroscopy and statistical mechanics. | UG LE | Lecture |
| CHM2110L    | 2110L  | Organic Chemistry Lab | 2 | Laboratory illustrations of CHM 2110 lecture material and techniques of preparative organic chemistry. | UG LB | Lab |
| EES6370     | 6370   | Seismic Processing | 4 | Students learn the theory and practice of computer processing of seismic reflection data. Every step in this technology is taught including seismic data formats, seismic data manipulation, filtering, velocity analysis, stacking and migration. We deal with both land and marine data. The student has hands-on experience with industry-standard software packages. | GR LE | Lecture |
| CHI3110     | 3110   | Chinese Conversation | 3 | This course will pursue a balance of the four basic language skills: reading, writing, listening, and speaking in Chinese with a focus on conversation. Undergraduate level CHI 2020 Minimum Grade of D or AP Chinese Language & Culture 4 | UG LE | Lecture |
| KNH1060     | 1060   | Backpacking | 1 | Fundamental skills and knowledge of Backpacking. Competency-based approach. Course may accommodate disabled students when appropriate. | UG LB | Lab |
| MTH1350     | 1350   | Analytic Geometry & Trig | 3 | Polynomial equations, conic sections, trigonometric and inverse trigonometric functions, trigonometric identities, solution of triangles. | UG LE | Lecture |
| COM3450     | 3450   | Public Relations | 3 | Simulation focusing on the processes of a public-relations campaign: fact finding, action planning, implementation of communication channels, and program evaluation. | UG LE | Lecture |
| ISE1110L    | 1110L  | Intro Eng Sci Apps for All Lab | 0 | Required laboratory for ISE 1110. | UG LB | Lab |
| ED6040      | 6040   | Phonics&Word Study for Int Spec | 3 | In-depth analysis of how people learn the printed word, and how to assess that knowledge with appropriate phonics and phonics-related assessment and materials. Students will apply knowledge through phonics lesson design, delivery and analysis. | GR LL | Lecture/Lab Combinat
| ASM6510     | 6510   | Aerospace Medicine | 3 | An introduction to the basics of aerospace medical issues that prepares students for the aero-medical concerns and operational flight environment course. Subject matter includes aerospace medical history, illusions, atmospheric physics, physical environmental issues such as radiation, thermal issues, noise, and space environments. | GR LE | Lecture |
| MLB4730     | 4730   | Diagnostic Micro Prac | 3 | Practical application of microbiology techniques at a clinical site. | UG PR | Practicum |
| MTH4920     | 4920   | Mathematics Seminar | 3 | Detailed study of a single mathematics topic chosen by the student with the approval of the instructor. Integrated Writing course. | UG SE | Seminar |
| BIO6430     | 6430   | Vertebrate Histology | 5 | Study of structure/function relationships in vertebrate tissues, organs and organ systems. | GR LE | Lecture |
| CHM6680     | 6680   | Exp Nanomaterials | 3 | This course will provide a series of laboratory experiments similar to the state-of-the-art R&D in nanotechnology and nanoscience. The experiments include 1) fabrication of nanomaterials such as metal nanoparticles and graphene nanoplatelets; 2) characterization of physical and chemical properties by using techniques such as Raman spectroscopy, atomic force microscopy, terahertz spectroscopy, electrochemical analyses etc; and 3) computational modeling of nanoscale physical phenomena. | GR LE | Lecture |
| Fall 2022 | ME7190  | 7190 Engineering Lubrication | ME Mechanical and Materials Engr | 3 | This course is designed to bridge the classroom education and the latest engineering design occurring in the automotive and aerospace industries. This course defines the different lubrication regimes where mechanical elements in (automotive, aerospace, heavy machinery, wind turbine, etc. applications) operate; introduces surface topography metrics and parameters; describes lubricant properties; introduces Reynolds equation; introduces governing equations for hydrodynamic, elastohydrodynamic, and mixed elastohydrodynamic lubrication; introduces engineering approaches for lubrication performance assessment in machine elements. The students will go to the lab to observe how in field experiments are designed. A simplified version of a research project that was sponsored by General Motors (automotive) and Pratt & Whitney (aerospace) is incorporated in the course, illustrating how the course materials are utilized in the real engineering designs for the optimization of mechanical efficiency and the prevention of failures. | GR LE Lecture |
| Fall 2022 | ME4120  | 4120 Finite Element Analysis | ME Mechanical and Materials Engr | 3 | Fundamentals of finite element analysis as a general numerical method for the solution of boundary value problems in engineering, with an emphasis on structural and solid mechanics. Department Managed Prerequisite(s): Undergraduate level MTH 2320 Minimum Grade of D and (Undergraduate level MTH 2350 Minimum Grade of D or Undergraduate level MTH 2330 Minimum Grade of D and Undergraduate level MTH 2530 Minimum Grade of D) and Undergraduate level ME 3120 Minimum Grade of D | UG LE Lecture |
| Fall 2022 | EES4600 | 4600 Limnology | EES Earth & Environmental Sciences | 3 | Study of the morphological, physical, chemical, and biological characteristics of lakes, bogs, and watersheds. Includes one week of lecture on main campus and one week of field study in northern Wisconsin. | UG PR Practicum |
| Fall 2022 | REL3620 | 3620 New Religious Mov Amer | REL Religion | 3 | New religious movements in America, including Shakers, Mormons, Seventh-Day Adventists, Jehovah’s Witnesses, Christian Scientists, and others as appropriate. | UG LE Lecture |
| Fall 2022 | PTX8008 | 8008 Pharm Short Course | PTX Pharmacology/Toxology | 1 | This course was developed to give the medical students in the Clinical Investigation M.S. track the opportunity to become familiar with pharmacology. This course includes lecture style meetings as well as in-depth understandings of clinical research in the current literature. | GR LE Lecture |
| Fall 2022 | CLS1010 | 1010 Medical Sci Terminology | CLS Classics | 3 | Spelling, recognition, and understanding contemporary specialized medical and scientific vocabulary that is based on Latin and Greek languages. Emphasis on terminology of the medical sciences. | UG LE Lecture |
| Fall 2022 | ENG1140 | 1140 Acad Writing & Reading | ENG English | 4 | Introduces students needing additional instruction in writing to principles of effective multi-literacy practices required of college-level thinkers, writers, readers, and communicators. Students are introduced to writing for different contexts with an emphasis on the differences between informal writing and formal, revised, research-based academic writing. Students are taught how to apply the writing process to plan a longer writing project, conduct college-level research, organize drafts, incorporate sources into their writing, give feedback to peer writers, receive feedback from peer writers, and refine their writing style for different audiences and purposes. Students may use any of the following courses to satisfy the requirements of the Core, but only one may count: ENG 1100 or ENG 1140. | UG LE Lecture |
| Fall 2022 | OL4990 | 4990 OL Honors Project | OL Organizational Leadership | 1 | A theoretically based research project under the guidance of a faculty advisor. Examples might include: defining a specific research question and providing a comprehensive literature review; or identifying, examining, and researching a work-based problem/issue. | UG IS Independent Study |
| Fall 2022 | PSY9910 | 9910 Internship | PSY Psychology | 1 | Internship in private or governmental organizations under the direction of a faculty advisor. Student must have successfully defended their Master’s thesis prior to enrollment. Does not count for graduate credit toward the Ph.D. degree in psychology. Graded pass/unsatisfactory. | GR IN Internship |
| Fall 2022 | GERS5220 | 5220 Adv. Writing in German | GER German | 3 | Oral and written composition in German; translations from English into German. | GR LE Lecture |
| Fall 2022 | CEG7030 | 7030 VLSI Des Synth Optm | CEG Computer Engineering | 3 | VLSI Synthesis and optimization including data path synthesis, glue logic synthesis control-unit synthesis, and resource sharing. Covers behavioral level to layout level synthesis and corresponding algorithms. Department Managed Prerequisite(s): Undergraduate level EE 4620 Minimum Grade of D and Graduate level EE 4620 Minimum Grade of D or (Graduate level EE 6620 Minimum Grade of D and Graduate level EE 8620L Minimum Grade of D) | GR LE Lecture |
| Fall 2022 | EE4420L | 4420L Microwave Egr I Lab | EE Electrical Engineering | 1 | Hands-on experience with microwave devices, microwave testing equipment and representative microwave systems. Department Managed Prerequisite(s): Undergraduate level EE 3450 Minimum Grade of D and Undergraduate level EE 3450L Minimum Grade of D | UG LB Lab |
| Fall 2022 | BME6440L | 6440L Biomaterials Lab | BME Biomedical Engineering | 0 | Required laboratory for BME 6440. | GR LB Lab |
| Fall 2022 | BMB4400 | 4400 | Human Microbiome | BMB | Biochem & Molecular Biology | 3 | This course will examine human-associated microbiome. We will see what kind of organisms live in partnership with us, what they do, how their functions affect our health and well-being, and how the alterations to this microbiome can be linked to a variety of human diseases and maladies. In addition, in the laboratory part of the course, each student will profile their personal microbiome community of choice (or the standard microbiome sample). You will learn the experimental approaches to the interrogation of microbiota, will isolate, amplify, and purify 16S rDNA, and then isolate high-throughput sequencing data. Thus, you will find out which specific kinds of microbes live in association with you. Discuss communities of microbes living in associations with human bodies, how infants acquire microbes, which functions these microbes perform, and which human diseases are associated with microbiota disbalance. | UG | LE | Lecture |
| Fall 2022 | KNH1210A | 1210A | Fencing: Intermediate | KNH | Kinesiology & Health Education | 1 | Intermediate level of skills and knowledge in Fencing: Intermediate. Competency-based approach. Course may accommodate disabled students when appropriate. | UG | LB | Lab |
| Fall 2022 | KNH1240 | 1240 | Golf | KNH | Kinesiology & Health Education | 1 | Fundamental skills and knowledge of Golf. Competency-based approach. Course may accommodate disabled students when appropriate. | UG | LB | Lab |
| Fall 2022 | MTE6430 | 6430 | Alg Func Mid Schl Tchr | MTE | Mathematics Teacher Education | 4 | Algebraic principles and linear functions are reviewed with respect to their usage in middle school classrooms. Polynomial, rational, exponential, logarithmic, and trigonometric functions are studied from a perspective appropriate for a middle school teacher. Students explore how properties of functions appear in various representations by means of technological tools. | GR | LE | Lecture |
| Fall 2022 | SAA7690 | 7690 | Design Diverse Learn Exp | SAA | Student Affairs in Higher Ed | 3 | Learning to design structured group experiences, from conception through program delivery and evaluation is the class focus. Training skills for exploring controversial issues including gender, role, class, language, spirituality, sexuality, and politics are covered. | GR | LL | Lecture/Lab Combination |
| Fall 2022 | EDL8610 | 8610 | Principal Prog Entry | EDL | Educational Leadership | 1 | Candidates investigate various contemporary educational leadership topics and issues: content knowledge, pedagogical content knowledge, diversity, technology, professionalism, emotional intelligence, and/or others. | GR | SE | Seminar |
| Fall 2022 | ME6830 | 6830 | Comp Materials Science | ME | Mechanical & Materials Engr | 3 | This course covers basic theories, methods and algorithms of atomistic computer simulations of materials, using lectures and computer labs. Classical, semi-empirical, and ab initio quantum mechanical methods are explained. <b>Department Managed Prerequisite(s): Undergraduate level ME 2700 Minimum Grade of D</b> | GR | LL | Lecture/Lab Combination |
| Fall 2022 | ASM7472 | 7472 | Social Behavioral Science | ASM | Aerospace Medicine | 3 | This course takes a look at combined major public health issues dealing with lifestyle and behavioral health issues. It is structured mainly in a seminar and project style of instruction. | GR | LE | Lecture |
| Fall 2022 | DOS9090 | 9090 | Adv Qual Mthd Seminar | DOS | Doctor Org Studies | 3 | This course focuses on the qualitative research process from research topic, design, implementation, analyses, and findings. Included is emphasis on the researcher as the research instrument and exploration of theoretical frameworks. | GR | SE | Seminar |
| Fall 2022 | IT4310 | 4310 | History Graphic Design | IT | Information Technology | 3 | Historical analysis of visual communication emphasizing the development of the profession of graphic design and the relationship of commerce and technology to the history of graphic design. <b>Department Managed Prerequisite(s): Undergraduate level ENG 2100 Minimum Grade of D</b> | UG | LE | Lecture |
| Fall 2022 | EC7770 | 7770 | Economic Studies | EC | Economics | 3 | An examination of special issues. Department-Managed Prerequisite: equivalent coursework or permission of instructor. <b>Department Managed Prerequisite(s): Graduate level MBA 5200 Minimum Grade of D</b> | GR | LE | Lecture |
| Fall 2022 | AFS6030 | 6030 | History of Ideas of Race | AFS | Afr & Afr Amer Studies | 3 | Examine the development of various ideas of race from 1600 to the present. | GR | LE | Lecture |
| Fall 2022 | BIO4010 | 4010 | Topics in Modern Biology | BIO | Biology | 1 | Advanced topics in modern biology of current interest. Topics vary. | UG | LE | Lecture |
| Fall 2022 | ART4690 | 4690 | Adv Printmg: Scripprtng | ART | Art | 3 | Development of personalized concepts and individual aesthetic expression in printmaking. This course has a fee that is non-refundable once the term begins. <b>Department Managed Prerequisite(s): Undergraduate level ART 3690 Minimum Grade of D</b> | UG | LB | Lab |
| Fall 2022 | FR4920 | 4920 | Occupation Cinema | FR | French | 3 | Analysis of films made during and after the Occupation of France, such as L'Oeil de Vichy, Le Dernier Métro, Lacombe Lucien, L'Armée des Ombres. Au revoir les enfants, etc. Integrated Writing course. <b>Department Managed Prerequisite(s): Undergraduate level FR 3210 Minimum Grade of D or Undergraduate level FR 3220 Minimum Grade of D</b> | UG | LE | Lecture |
| Fall 2022 | PHY7400 | 7400 | Nucl. Methods in Physics | PHY | Physics | 3 | Topics in the application of nuclear structure, nuclear processes, and energy loss processes to physical measurement and research. Radiation damage. Particle scattering. Gamma, alpha and beta spectroscopy. Energy loss spectrometries. | GR | SE | Seminar |
| Fall 2022 | BMET132 | 7132 | Computed Tomography | BME | Biomedical Engineering | 3 | Principles of generating images from projections. Discussion of specific problems like beam hardening, scatter, metal artefacts, etc. Focus on quantitative imaging in medical applications. <b>Department Managed Prerequisite(s): Undergraduate level BME 4702 Minimum Grade of D or Graduate level BME 6702 Minimum Grade of D</b> | GR | LE | Lecture |
| Fall 2022 | PLS7990 | 7990 | Graduate Thesis Research | PLS | Political Science | 1 | Research for Master's Thesis. | GR | IS | Independent Study |
Fall 2022

ME5120 5120 Mechanics of Materials
ME Mechanical and Materials Engr
3 Introduction to stress and deformation in deformable solids. Topics include axial loading, torsion, pure bending, shear stresses in beams, design of beams under transverse shear, thin-wall pressure vessels, transformation of stress, stresses under combined loads, deflection of beams and buckling.<b> Department Managed Prerequisite(s): Undergraduate level ME 2120 Minimum Grade of D and (Undergraduate level ME 1020 Minimum Grade of D or Undergraduate level CEG 2200 Minimum Grade of D)<br/></b>

GR LE Lecture

Fall 2022

ME4490 4490 Aerospace Structures
ME Mechanical and Materials Engr
3 Stress, deformation, and stability analysis of aerospace structures. Thin-walled members bending, torsion, and shear stresses calculation in multiaxial structures. Buckling of thin plates.<b> Department Managed Prerequisite(s): Undergraduate level ME 3120 Minimum Grade of D</b>

UG LE Lecture

Fall 2022

REL3210 3210 Christianity
REL Religion
3 Examination of the historical development of Christianity from biblical times to the present, with an emphasis on the diversity of religious beliefs, practices, and institutions.

UG LE Lecture

Fall 2022

NUR7552 7552 Practicum for PCPNP
NUR Nursing
6 Focus on models of practice providing health care to infants, children, and adolescents in wellness, common minor health problems, and acute and chronic illness as a Primary Care - Pediatric Nurse Practitioner. Factors influencing role development will be addressed.

GR LE Lecture

Fall 2022

MUA2120 2120 Applied Music
MUA Music: Applied Music
1 Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music.

UG IS Independent Study

Fall 2022

IT1220 1220 Adv Photo Des Sci
IT Information Technology
3 Advanced photography techniques including image editing, output, workflow, advanced exposure, lighting techniques, and raw shooting.<b> Department Managed Prerequisite(s): Undergraduate level IT 1210 Minimum Grade of D</b>

UG LL Lecture/Lab Combination

Fall 2022

DAN2020 2020 Ballet I
DAN Dance
3 Vocabulary, techniques, and theory of ballet. Emphasis on body alignment and flexibility.

UG ST Studio

Fall 2022

BME4450 4450 Tissue Egr & Regen Med
BME Biomedical Engineering
3 Principles and underlying strategies for employing selected cells, biomaterial scaffolds, soluble regulators or their genes, and mechanical loading and culture conditions, for the regeneration of tissues and organs. Methods for fabricating tissue engineered products and devices under development and currently in clinical use.

UG LE Lecture

Fall 2022

BME7850 7850 Lean Proc Impr Engr
BME Biomedical Engineering
3 Introduction to the practical application of lean manufacturing and kaizen techniques in manufacturing and service/healthcare environments. Includes case studies and team projects based on real world problems and solutions.<b> Department Managed Prerequisite(s): Graduate level IHE 6310 Minimum Grade of C</b>

GR LE Lecture

Fall 2022

CS8950 8950 Dissertation Research
CS Computer Science
1 Research on the approved Ph.D. dissertation topic.<b> Department Managed Prerequisite(s): Graduate level IHE 6310 Minimum Grade of C</b>

GR IS Independent Study

Fall 2022

PHL3830 3830 Faith & Reason
PHL Philosophy
3 Introduction to issues in the philosophy of religion. Topics vary.

UG LE Lecture

Fall 2022

BMB7500 7500 Molecular Biochemistry I
BMB Biochem & Molecular Biology
3 Also listed as BMS 7500. Survey course emphasizing experimental and problem-solving approaches to understanding amino acids, protein structure, enzymes, nucleic acid structure and DNA replication.

GR LE Lecture

Fall 2022

PSY4040 4040 Independent Reading
PSY Psychology
1 Specific topics selected by students and instructor.

UG IS Independent Study

Fall 2022

MGT3210 3210 Human Resources Mgt
MGT Management
3 Overview of human resource (HR) functions and policies, including environment of HR (including legal), recruiting and selection of employees, training and development, compensation and benefits, labor and employee relationship.

UG LE Lecture

Fall 2022

MUE2950 2950 Chamber Singers
MUE Music: Ensembles
1 Development of advanced choral and vocal skills. Emphasis on advanced vocal chamber literature from 15th through 20th centuries. Audition required.

UG LL Lecture/Lab Combination

Fall 2022

EES4360 4360 Environ Field Techniques
EES Earth & Environmental Sciences
2 Principles of monitoring environmental water quality, including lake, river, groundwater, and related issues. Field experiences, include monitoring system design, well design for various monitoring purposes, sampling protocol, sample preservation, and monitoring and sampling at field sites.

UG LL Lecture/Lab Combination

Fall 2022

EES7800 7800 MST Research
EES Earth & Environmental Sciences
0.5 Research designed for specific needs and talents of students at the graduate level in the MST program. May be taken for a letter grade or pass/unsatisfactory.

GR IS Independent Study

Fall 2022

EGR1980 1980 Special Topics in EGR
EGR Engineering
1 Special topics in Engineering and Computer Science.

UG PKG Combination

Fall 2022

EDS4460 4460 Impact Student Learn
EDS Education - Special Education
3 Integrating assessment based intervention strategies within inclusion setting to impact the learning of students with exceptional learning needs. Field experiences required. Integrated Writing course.

UG LE Lecture

Fall 2022

TTW6470 6470 TTW Int: Career Assess
TTW Transition to Work
1 Students assigned to an experienced career assessment professional in the field for observing, discussing, researching, and practicing skills in the area of career assessment, particularly those related to transition of individuals with disabilities.

GR IN Internship

Fall 2022

LAW3000 3000 Legal Env of Business
LAW Law
3 Survey of domestic and international business law with the focus on practical applications of basic legal principles to managerial effectiveness, analytical reasoning and operational skills.

UG LE Lecture

Fall 2022

PSY6300 6300 Abnormal Psych Cap
PSY Psychology
3 Writing and oral communication intensive seminar integrating knowledge on select topics within Abnormal Psychology. Topic will vary.

GR SE Seminar
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Title</th>
<th>Department</th>
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<th>Mode</th>
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<td>7200</td>
<td>Apps Isotopes in Env Sci</td>
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<td>9610</td>
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<td>Adv Sign to Voice Interpreting</td>
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<td>Jazz/Theatre Dance III</td>
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<td>Teaching Invasion Games</td>
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<td>Fall 2022</td>
<td>NEU4200</td>
<td>4200 Neu-ImmSys Crs-Tk Hmsts</td>
<td>NEU Neuroscience</td>
<td>3</td>
<td>Multidirectional interactions between the nervous and immune systems have been documented in homeostasis and pathologies ranging from multiple sclerosis to autism, and from leukemia to acute and chronic inflammation. This course focuses on neuro-immune interactions at barrier surfaces—mostly the gut, but also including the skin and the airways, areas densely populated by neurons and immune cells that constantly sense and adapt to tissue-specific environmental challenges.</td>
<td>UG LE Lecture</td>
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<td>Fall 2022</td>
<td>MUA2220</td>
<td>2220 Applied Music</td>
<td>MUA Music: Applied Music</td>
<td>2</td>
<td>Open only to Music majors or minors. All students must have auditioned for and have received department approval before registering for applied music.</td>
<td>UG IS Independent Study</td>
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<tr>
<td>Fall 2022</td>
<td>EES1030</td>
<td>1030 Paleobiology</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>4</td>
<td>Multidisciplinary investigation into the morphology, classification and identification of the dinosaurs, Environmental, climatic, and geographic conditions on earth during the time of the dinosaurs. Biological principles involved in understanding the origin, evolution, and extinction of the dinosaurs.</td>
<td>UG LE Lecture</td>
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<td>Fall 2022</td>
<td>MTH6990</td>
<td>6990 Selected Topics</td>
<td>MTH Mathematics</td>
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<td>Selected topics in mathematics.</td>
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<td>CEG2350L</td>
<td>2350L OS Concepts and Usage Lab</td>
<td>CEG Computer Engineering</td>
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<td>Required laboratory for CEG 2350.</td>
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<td>Fall 2022</td>
<td>PHY6500</td>
<td>6500 Electricity and Magnet</td>
<td>PHY Physics</td>
<td>3</td>
<td>Fundamental laws of electricity and magnetism presented from the viewpoint of field theory. Maxwell's equations, transient and steady state currents, electric and magnetic properties of matter, and electromagnetic radiation.</td>
<td>GR LE Lecture</td>
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<td>Fall 2022</td>
<td>BMB2100</td>
<td>2100 Intro to Biochemistry</td>
<td>BMB Biochem &amp; Molecular Biology</td>
<td>2</td>
<td>Basic concepts in Biochemistry.</td>
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<td>Fall 2022</td>
<td>SPN4030</td>
<td>4030 Adv Studies: Lang Civil</td>
<td>SPN Spanish</td>
<td>3</td>
<td>Topics vary. Conducted in Spanish. Integrated writing course.</td>
<td>UG SE Seminar</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED6020</td>
<td>6020 Read &amp; Lit I: Int Spec</td>
<td>ED Education</td>
<td>3</td>
<td>Content knowledge of the structure of literacy and reading/writing instruction; instructional strategies for reading and writing and the theory that supports scientifically-based instruction.</td>
<td>GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATH4000</td>
<td>4000 Political Anthropology</td>
<td>ATH Anthropology</td>
<td>3</td>
<td>Focuses on the anthropological study of political life cross-culturally. Presents evolutionary and historical approaches to political institutions, and classic anthropological analyses of political institutions. Investigates recent developments in the study of politics as a contemporary problem. Integrated Writing course.</td>
<td>UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CTE6250</td>
<td>6250 Curriculum &amp; Assessment</td>
<td>CTE Career and Technical Education</td>
<td>3</td>
<td>Investigates ways in which schools approach curriculum, assessment and continuous improvement. Includes alignment of standards with curriculum, instruction and assessments, increased attention to student learning and increased faculty collaboration.</td>
<td>GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HPR2020</td>
<td>2020 Teaching Fitness in PE</td>
<td>HPR Health Phy Educ &amp; Recreation</td>
<td>3</td>
<td>Develops fitness knowledge, skills and teaching strategies to encourage physical activity levels in Pre-K 12 students. Students are required to demonstrate competency in fitness-related skills and a minimum level of health-related fitness.</td>
<td>UG LL Lecture/Lab Combination</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1220B</td>
<td>1220B Fencing: Competitive</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1</td>
<td>Intermediate level of skills and knowledge in Fencing: Competitive. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG LB Lab</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>APS4210</td>
<td>4210 Trend&amp;Issue Agricultural Sct</td>
<td>APS Applied Studies</td>
<td>3</td>
<td>Analysis and exploration of food, agricultural, and environmental issues, how organizations and leaders respond and adapt to the current environment, and how leaders can prepare for future challenges and opportunities in the Food and Agricultural Industry.</td>
<td>UG SP Self-Paced</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL5730</td>
<td>5730 Genesis</td>
<td>REL Religion</td>
<td>3</td>
<td>Examines Genesis as the foundation of the Bible in context with cultural tales such as the ancient Mesopotamian creation and flood myths.</td>
<td>UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDS5990</td>
<td>5990 Lng&amp;Phnc for Lmrs w/Dys</td>
<td>EDS Education - Special Education</td>
<td>1</td>
<td>This course involves an in-depth understanding of how structured language and phonics impacts learners with dyslexia, phonics knowledge, and the use of research-supported instructional procedures and strategies in working with learners with dyslexia.</td>
<td>GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PPH7410</td>
<td>7410 Community Assessment</td>
<td>PPH Population &amp; Public Health</td>
<td>3</td>
<td>Course is designed to provide a practical public health experience. To describe communities quantitatively, learners will create tables and descriptions using current public health and community data; they will also conduct qualitative inquiry about the nature of communities. Visual display and reporting and presentation skills will be covered. Quantitative and qualitative data are combined to give learners practical experience creating a community assessment from a variety of data sources.</td>
<td>GR LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MLB4820</td>
<td>4820 Adv Immunohematology</td>
<td>MLB Medical Laboratory Science</td>
<td>2</td>
<td>Advanced topics in transfusion medicine, including immune hemolytic anemias, paternity testing, component therapy, HLA antigens, quality assurance and the role of regulatory agencies in the practice of transfusion medicine.</td>
<td>UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM1070L</td>
<td>1070L Chemistry: Energy &amp; Env Lab</td>
<td>CHM Chemistry</td>
<td>0</td>
<td>Required laboratory for CHM 1070.</td>
<td>UG LB Lab</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL3940</td>
<td>3940 Existentialism</td>
<td>REL Religion</td>
<td>3</td>
<td>Introduction to 20th century philosophical and literary movement. Emphasis on concrete existence and passions over abstract rationality, conception of self as a product of radically free acts of self-creation, affirmation of uncertainty and absurdity as inescapable elements of the human condition, and rejection of traditional ethical systems.</td>
<td>UG LE Lecture</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Section</td>
<td>Type</td>
<td>Instructor</td>
<td>Credits</td>
<td>Description</td>
<td></td>
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<tr>
<td>ANT3100L</td>
<td>Human Structure Fund I Lab</td>
<td>3100L</td>
<td>UG</td>
<td>ANT</td>
<td>3</td>
<td>Study of genetic methods and associated computational complexity for problem solving. Techniques include divide and conquer methods, greedy algorithms, dynamic programming, and parallel algorithms. Department Managed Prerequisite(s): Undergraduate level CS 3100 Minimum Grade of D or Graduate level CS 5100 Minimum Grade of D.</td>
<td></td>
</tr>
<tr>
<td>BMS7770</td>
<td>Gene Therapy</td>
<td>7770</td>
<td>UG</td>
<td>BMS</td>
<td>3</td>
<td>(Also listed as M&amp;I 7770.) The molecular basis of gene therapy and the use of viral gene delivery systems for the treatment of human disease are examined. Gene therapy strategies are contrasted with various diseases, including cancer and AIDS. Department Managed Prerequisite(s): Undergraduate level EE 4540 Minimum Grade of D and Undergraduate level EE 4540L Minimum Grade of D or Graduate level EE 6540 Minimum Grade of C and Graduate level EE 6540L Minimum Grade of C.</td>
<td></td>
</tr>
<tr>
<td>ENG5610</td>
<td>Technical Writing</td>
<td>5610</td>
<td>UG</td>
<td>ENG</td>
<td>3</td>
<td>The course will discuss the role of entrepreneurship in the economy. The course will also discuss how new ventures are developed. The course draws from a number of disciplines including marketing, finance, accounting, management, ethics, and law that form the foundation of a business. The course will include a discussion of the role of business plans and discuss how to prepare a successful business plan. Department Managed Prerequisite(s): Concepts and skills used in scientific and technical writing.</td>
<td></td>
</tr>
<tr>
<td>MKT7300</td>
<td>Entrepreneurship</td>
<td>7300</td>
<td>UG</td>
<td>MKT</td>
<td>3</td>
<td>The course will discuss the role of entrepreneurship in the economy. The course will also discuss how new ventures are developed. The course draws from a number of disciplines including marketing, finance, accounting, management, ethics, and law that form the foundation of a business. The course will include a discussion of the role of business plans and discuss how to prepare a successful business plan. Department Managed Prerequisite(s): Concepts and skills used in scientific and technical writing.</td>
<td></td>
</tr>
<tr>
<td>EE7540</td>
<td>VLSI Testing Design</td>
<td>EE</td>
<td>UG</td>
<td>Electrical</td>
<td>3</td>
<td>Design for testability of VLSI circuits. Topics include importance of testing, conventional test methods, built-in test, CAD tools for evaluating testability, test pattern generators and compressors; and test for mixed-signal systems and systems-on-a-chip (SOC). Department Managed Prerequisite(s): Undergraduate level EE 4540 Minimum Grade of D and Undergraduate level EE 4540L Minimum Grade of D or Graduate level EE 6540 Minimum Grade of C and Graduate level EE 6540L Minimum Grade of C.</td>
<td></td>
</tr>
<tr>
<td>KNH2840</td>
<td>Practicum in History</td>
<td>KNH</td>
<td>UG</td>
<td>Kinesiology</td>
<td>1</td>
<td>Supervised field work for sophomore students who are seeking certification or a concentration in a specific area. Titles vary. Contact hours vary according to subject. May be taken for a letter grade or pass/unsatisfactory.</td>
<td></td>
</tr>
<tr>
<td>PSY8220</td>
<td>Spatial Knowledge</td>
<td>PSY</td>
<td>UG</td>
<td>Psychology</td>
<td>3</td>
<td>This course explores research and concepts of spatial knowledge acquisition, processing and use. Relevant theories will be reviewed and critically evaluated from contemporary and historical perspectives. Importance and potential applications of spatial processing for human factors applications will be considered.</td>
<td></td>
</tr>
<tr>
<td>SOC6300</td>
<td>International Migrat Integration</td>
<td>SOC</td>
<td>UG</td>
<td>Sociology</td>
<td>3</td>
<td>Examines the dynamics of international migration and immigration, immigrant adaptation and incorporation, and the U.S. response to immigration.</td>
<td></td>
</tr>
<tr>
<td>MUE4690</td>
<td>Wind Symphony</td>
<td>MUE</td>
<td>UG</td>
<td>Music Ensembles</td>
<td>1</td>
<td>The university's most select symphonic band organization, this ensemble performs compositions ranging from traditional classics to innovative contemporary literature, including transcriptions and original works. Audition and instructor permission required.</td>
<td></td>
</tr>
<tr>
<td>SOC3300</td>
<td>Social Organization</td>
<td>SOC</td>
<td>UG</td>
<td>Sociology</td>
<td>3</td>
<td>Theories and analysis of social organization in its historical and present context. Emphasis on the interrelationship between individuals, the family, and other institutions.</td>
<td></td>
</tr>
<tr>
<td>MGT1010</td>
<td>Community Leadership</td>
<td>MGT</td>
<td>UG</td>
<td>Management</td>
<td>3</td>
<td>Provides experiential skill development in the areas of leadership and community service. Students will complete a group community service project, which will be developed in conjunction with the Junior Leadership Dayton program. Open only to Junior Leadership Dayton students. Graded pass/unsatisfactory.</td>
<td></td>
</tr>
<tr>
<td>BIO5460</td>
<td>Concept in Bio II for Ed</td>
<td>BIO</td>
<td>UG</td>
<td>Biology</td>
<td>4</td>
<td>Concepts and applications of biology formatted to model implications of state and national pedagogical standards, aimed specifically at preparing students for biology teaching in Grades 4-9.</td>
<td></td>
</tr>
<tr>
<td>ME7720</td>
<td>Engineering Polymers II</td>
<td>ME</td>
<td>UG</td>
<td>Mechanical</td>
<td>3</td>
<td>Polymer physics including phase diagrams, phase separation, the amorphous and crystalline states, liquid crystals, thermal transitions, viscoelasticity and rheology, as well as deformation and fracture. Department Managed Prerequisite(s): Undergraduate level ME 4720 Minimum Grade of D or Graduate level ME 6720 Minimum Grade of D and (Undergraduate level ME 3750 Minimum Grade of D or Graduate level ME 5750 Minimum Grade of D).</td>
<td></td>
</tr>
<tr>
<td>HST7900</td>
<td>Capstone Project</td>
<td>HST</td>
<td>UG</td>
<td>History</td>
<td>1</td>
<td>Capstone project that demonstrates achievement and is a significant contribution to the field (historical editing, exhibit design and creation, public program, documentary film, oral history, advanced processing, etc.).</td>
<td></td>
</tr>
<tr>
<td>HST4100</td>
<td>Early Modern Europe</td>
<td>HST</td>
<td>UG</td>
<td>History</td>
<td>3</td>
<td>Examines selected problems in European history from the late Middle Ages through the Counter-Reformation. Topics may include the Renaissance and Reformation. Topics vary. Integrated Writing course.</td>
<td></td>
</tr>
<tr>
<td>PHIL3320</td>
<td>20th C Political Phil</td>
<td>PHIL</td>
<td>UG</td>
<td>Philosophy</td>
<td>3</td>
<td>Major thinkers in 20th century political philosophy. Topics vary, focusing on one or more themes such as rights, democracy, liberalism, pluralism, secularism, tolerance, torture, terrorism, or totalitarianism. Readings from thinkers such as Arendt, Marcuse, Habermas, Foucault, Derrida, Rawls, Rorty, Cohen, Machinley, Taylor, Nunsmith, and Agamben.</td>
<td></td>
</tr>
<tr>
<td>HUM7800</td>
<td>Independent Study</td>
<td>HUM</td>
<td>UG</td>
<td>Humanities</td>
<td>1</td>
<td>Individual study in the humanities under the direction of a faculty supervisor. Generally requires regular conferences with supervisor and research writing.</td>
<td></td>
</tr>
<tr>
<td>EDT7160</td>
<td>Issues and Respons in DL</td>
<td>EDT</td>
<td>UG</td>
<td>Educational</td>
<td>3</td>
<td>Examines the issues and responsibilities of using digital technologies. Consideration of issues of intellectual property rights, ethics, managing online reputation, and professional responsibilities. Department Managed Prerequisite(s): Graduate level EDT 7860 Minimum Grade of D.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG8910</td>
<td>8910</td>
<td>PhD Seminar in CEG</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>1</td>
<td>Games combine technology and art to entertain, inspire, and educate. Game design is a practical application of Computer Science that combines software with 2D/3D models, sound, music, textures, storytelling, and simulation. Many Computer Science topics come together in games: algorithms and data structures, networking, operating systems, multi-threading, graphics, simulation, and artificial intelligence. This course introduces modern designs, technologies, best practices, and resources available to craft computer games.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS3160</td>
<td>3160</td>
<td>Game Programming</td>
<td>CS</td>
<td>Computer Science</td>
<td>3</td>
<td>Seminar discussion of current research in computer engineering.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS1010</td>
<td>1010</td>
<td>Intro Comps &amp; Office</td>
<td>CS</td>
<td>Computer Science</td>
<td>3</td>
<td>Microsoft Office software applications including intermediate word processing, spreadsheets, database and presentation graphics using a case study approach requiring critical thinking and problem solving skills.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SCM7940</td>
<td>7940</td>
<td>Total Qual Mgt &amp; Lean Sup</td>
<td>SCM</td>
<td>Supply Chain Management</td>
<td>3</td>
<td>Process and quality improvement, Six Sigma principles, value stream mapping, Baldridge assessment, benchmarking performance measurement and lean principles. This course has a fee that is non-refundable once the term begins.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4410</td>
<td>4410</td>
<td>Natural Resources Law</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Examines federal management of natural resources on public lands, specifically, water, minerals, timber, grazing, and wildlife. Analysis of constitutional authority, statutes, regulations, federalism, and judicial review of administrative decisions.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4410</td>
<td>4410</td>
<td>Natural Resources Law</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Examines federal management of natural resources on public lands, specifically, water, minerals, timber, grazing, and wildlife. Analysis of constitutional authority, statutes, regulations, federalism, and judicial review of administrative decisions.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME4540</td>
<td>4540</td>
<td>Solar Thermal Engr.</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>Fundamentals of solar radiation including a detailed study of analyzing the solar resource available at any location, at any time, for any orientation of collector. Photovoltaic collectors, flat plate collectors, and concentrating solar collectors are studied.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL5440</td>
<td>5440</td>
<td>Hinduism</td>
<td>REL</td>
<td>Religion</td>
<td>3</td>
<td>Exploration of some of the major beliefs and practices of Hinduism, an ancient, widely practiced, and amazingly diverse religious tradition.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY6600</td>
<td>6600</td>
<td>Engineering Psychology</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
<td>Introduction to the study of human factors in the design and operation of machine systems.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MGT4250</td>
<td>4250</td>
<td>Comp &amp; Benefits</td>
<td>MGT</td>
<td>Management</td>
<td>3</td>
<td>Application of compensation and benefits theory to local small businesses, job analyses, job descriptions, wage and benefit surveys, market pricing, point-factor job evaluations, graded salary structure, and related policies. Requires extensive group work.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ECO5170</td>
<td>5170</td>
<td>Eco Applica Internet I</td>
<td>ECO</td>
<td>Center for Economic Educ.</td>
<td>2</td>
<td>Course teaches basic economic concepts/skills to K-12 teachers and how they may be applied to the classroom using resources available on the Internet. This course is an excellent foundation for teachers with little economic knowledge that desiring greater expertise. This course has a fee that is non-refundable once the term begins.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY8710</td>
<td>8710</td>
<td>Psychology of Leadership</td>
<td>PSY</td>
<td>Psychology</td>
<td>2</td>
<td>Designed to explore the theories, research, and practice of leadership in work organizations from a psychological perspective.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDS2900</td>
<td>2900</td>
<td>Exceptionalities</td>
<td>EDS</td>
<td>Education - Special Education</td>
<td>3</td>
<td>Overview of historical and current legal, philosophical and education issues surrounding the definition, identification, causes/prevalence of specific exceptionalities, service delivery/placement options and multidisciplinary team process across education and community settings for K-12 students. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHL1410</td>
<td>1410</td>
<td>Philosophy of Law</td>
<td>PHL</td>
<td>Philosophy</td>
<td>3</td>
<td>Survey of the important theories concerning the nature and justification of law, liberty, justice, responsibility, and punishment.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SLI4900</td>
<td>4900</td>
<td>SLI Senior Capstone</td>
<td>SLI</td>
<td>Sign Language Interpreting</td>
<td>3</td>
<td>Culminating experience in the SLI program. Student will identify a community or professional need or area of interest, develop project plan to benefit the community and/or profession. Student completes program portfolio and conducts critical self-assessment, demonstrating appreciation for lifelong learning.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES6601</td>
<td>6601</td>
<td>Limnology</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>3</td>
<td>Study of the morphological, physical, chemical, and biological characteristics of lakes, bogs, and watersheds. Includes one week of lecture on main campus and one week of field study in northern Wisconsin.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED4250</td>
<td>4250</td>
<td>Early Inf Exp III: MCE</td>
<td>ED</td>
<td>Education</td>
<td>1</td>
<td>Mentored by a middle grades reading teacher, candidates will participate in a grades 4-9 reading classroom.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL7760</td>
<td>7760</td>
<td>Sup of Instr &amp; Personnel</td>
<td>EDL</td>
<td>Educational Leadership</td>
<td>3</td>
<td>Focus is on the supervision of curriculum and instruction. A systems approach to formative and summative assessment of instruction. The evaluation of curriculum and program effectiveness will be emphasized.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED6000</td>
<td>6000</td>
<td>Adolescent Dev for Eds</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>Examination of developmental changes experienced during adolescence and their relationship to educational experiences.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATH4700</td>
<td>4700</td>
<td>Development of Anthropology</td>
<td>ATH</td>
<td>Anthropology</td>
<td>3</td>
<td>This advanced course examines both past and current theoretical frameworks for understanding cultural patterns, practices, and precepts employed in anthropology. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME4870</td>
<td>4870</td>
<td>Machining</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>Fundamentals of machining with an emphasis on engineering models of machinability, chip formation, cutting forces and power, and lubrication. Introduction to numerical control machining. (3 Lecture, 1 Lab)&lt;b&gt; Department Managed Prerequisite(s): Undergraduate level ME 2210 Minimum Grade of D or Undergraduate level BME 3212 Minimum Grade of D or Undergraduate level ISE 3212 Minimum Grade of D&lt;u&lt;/b&gt;</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME6360</td>
<td>6360</td>
<td>Ptn Intr Comb Engine</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>Thermodynamics of I.C. engines, combustion thermodynamics, friction, heat and mass losses, and computer control of the modern fuel-injected I.C. engine.&lt;b&gt; Department Managed Prerequisite(s): Undergraduate level ME 3350 Minimum Grade of C or Graduate level ME 5350 Minimum Grade of C&lt;u&lt;/b&gt;</td>
</tr>
<tr>
<td>Term</td>
<td>Code</td>
<td>Credits</td>
<td>Course Title</td>
<td>Description</td>
<td>Grade</td>
<td>Type</td>
<td>Location</td>
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<tr>
<td>Fall 2022</td>
<td>DAN1070</td>
<td>1070</td>
<td>Ballet for the Actor I</td>
<td>Fundamental ballet technique for beginning non-dance majors to develop creative movement potential. Explores basic ballet vocabulary and steps.</td>
<td>UG</td>
<td>ST</td>
<td>Studio</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL3600</td>
<td>3600</td>
<td>Topics, Amer Religion</td>
<td>Selected topics related to the history and practice of religion in America.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FR6530</td>
<td>6530</td>
<td>Post Revolution Poetry</td>
<td>Romantics, symbolists, decadents, and surrealists, including Baudelaire, Rimbaud, Verlaine, Maillarmé, Apollinaire and Prévert. Taught in French.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PPH7660</td>
<td>7660</td>
<td>Public Health Terrorism</td>
<td>This course provides an in-depth investigation of terrorists, their targets and potential methods and the resultant implications for public health and emergency managers. This course explores terrorists and their motives, vulnerability of critical infrastructure and other civilian targets, risk assessment and interventions. This course will describe and critique local, national and international resources and initiatives in this evolving modern phenomenon.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CSD3230</td>
<td>3230</td>
<td>Health Care Finance Mgt</td>
<td>Financial principles and concepts in health care management organizations.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SOC3310</td>
<td>3310</td>
<td>Gilzith &amp; Social Change</td>
<td>Explanations of social change in modern societies. Emphasis on identification of sources of change, effects of change throughout society, major trends, and issues for the future.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ASM7971</td>
<td>7971</td>
<td>Aerospace Research I</td>
<td>Introduction to Aerospace Medical Research I will introduce students to the history of sources of aerospace medical research and the techniques by which contemporary scientific inquiry are performed. This course will also assist students in the completion of their aerospace medicine research project required for graduation.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>COM4251</td>
<td>4251</td>
<td>Race, Gender and Health</td>
<td>Students will learn about the integral nature of communication in health including: the role communication plays in shaping individuals' social and cultural expectations and beliefs about health and illness, and the ways in which this information may influence how it is we understand and communicate about race, gender and health.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME6540</td>
<td>6540</td>
<td>Solar Thermal Engr.</td>
<td>Fundamentals of solar radiation including a detailed study of analyzing the solar resource available at any location, at any time, for any orientation of collector. Photovoltaic collectors, flat plate collectors, and concentrating solar collectors are studied.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY6010</td>
<td>6010</td>
<td>Adv Research Methods</td>
<td>Advanced methods in selected areas of psychology.</td>
<td>GR</td>
<td>LL</td>
<td>Lecture/Lab Combinatio</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR4140</td>
<td>4140</td>
<td>Nursing Elective</td>
<td>Titles and topics vary.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUS1320</td>
<td>1320</td>
<td>Beg Guitar Class II</td>
<td>Based on technique covered in MUS 1310, this class concentrates on note-reading, more chords, and accompaniment styles.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSI9400</td>
<td>9400</td>
<td>Humanistic Psychotherapy</td>
<td>Theory, technique, and research base of client-centered psychotherapy. Theory of assessment procedures and techniques of transactional analysis, Gestalt psychotherapy, and selected existential approaches.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FR5120</td>
<td>5120</td>
<td>Oral Proficiency French</td>
<td>Practice in oral use of French emphasizing the culture of the French-speaking world. Taught in French.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME1980</td>
<td>1980</td>
<td>Special Topics in BME I</td>
<td>Undergraduate special topics in biomedical engineering. Topics vary.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG3520</td>
<td>3520</td>
<td>Writing Pedagogy for ILA</td>
<td>Introduction to writing pedagogy for Integrated Language Arts in grades 4-12 with an emphasis on writing processes and improving writing skills.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM1220R</td>
<td>1220R</td>
<td>General Chemistry Lab II Rec</td>
<td>Required recitation for CHM 1220.</td>
<td>UG</td>
<td>RE</td>
<td>Recitation</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHY7280</td>
<td>7280</td>
<td>General Relativity</td>
<td>Principles of the general theory of relativity with applications to gravitation and cosmology. Review of special relativity and tensor analysis. The equivalence principle, curvature, and Einstein's field equations. Introduction to differential geometry.</td>
<td>GR</td>
<td>SE</td>
<td>Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG7990</td>
<td>7990</td>
<td>Full-time CPT in CEG</td>
<td>Practical work experience in graduate level Computer Engineering.</td>
<td>GR</td>
<td>IN</td>
<td>Internship</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES3990</td>
<td>3990</td>
<td>Problems Earth &amp; Env Sci</td>
<td>Research and problems designed for undergraduate students at the junior level. May be taken for a letter grade or pass/unsatisfactory.</td>
<td>UG</td>
<td>IS</td>
<td>Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>URS7010</td>
<td>7010</td>
<td>Budgeting &amp; Fiscal Mgt</td>
<td>Focuses on budget processes and financial management practices in the public and nonprofit sectors.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Department</td>
<td>Credits</td>
<td>Type</td>
<td>Co-Term</td>
<td>Notes</td>
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<tr>
<td>KNH1780</td>
<td>Weight Training</td>
<td>1780</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Weight Training. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
</tr>
<tr>
<td>E57900</td>
<td>Indep Topics &amp; Research</td>
<td>7900</td>
<td>ES Environmental Sciences</td>
<td>1</td>
<td>Research and problems designed for specific needs and talents of the students.</td>
<td>GR</td>
<td>IS</td>
</tr>
<tr>
<td>CHM6170</td>
<td>Applied Chemical Spectrum</td>
<td>6170</td>
<td>CHM Chemistry</td>
<td>2</td>
<td>Practical applications of various spectrophotometric techniques (mass spectrometry, infrared spectrometry, ultraviolet spectrometry, and nuclear magnetic resonance) are integrated for the explanation of the structure of organic molecules. A problem-solving approach is used.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>MBA7100</td>
<td>Strategic Cost Mgt</td>
<td>7100</td>
<td>MBA MBA</td>
<td>3</td>
<td>Application of advanced management accounting concepts to strategic management decisions.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>IE4000</td>
<td>International Education</td>
<td>4000</td>
<td>IE International Education</td>
<td>1</td>
<td>Placeholder for students studying abroad on Wright State University Education Abroad Programs. Course placeholder will be replaced with Wright State courses when student returns from abroad.</td>
<td>UG</td>
<td>IS</td>
</tr>
<tr>
<td>MUE2660</td>
<td>Concert Band</td>
<td>2660</td>
<td>MUE Music Ensembles</td>
<td>1</td>
<td>Performs band music of all styles. Open to all students without audition.</td>
<td>UG</td>
<td>LL</td>
</tr>
<tr>
<td>RHB3680</td>
<td>Impact of HIV</td>
<td>3680</td>
<td>RHB Rehabilitation</td>
<td>3</td>
<td>Introduction to HIV and the populations impacted. Overview of the history, stereotypes and prejudices, prevention and treatment, and specific impact on subpopulation of HIV.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>EES1010</td>
<td>First Year Seminar</td>
<td>1010</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>1</td>
<td>This seminar is about the big picture—past, present, and future climate change; how the forces it reveals will affect your life; and how to confront its complex challenges using an interdisciplinary and logical approach to decision making. We will examine (1) the interlinked problems of population growth, continued globalization, and climate change (2) the importance of critical thinking and challenging your own assumptions and those you see in the news and social media (3) Predictions for both the future climate and the associated impact on global stability. This course is designed as a discussion seminar for students to get to know their EES cohort and professors better.</td>
<td>UG</td>
<td>SE</td>
</tr>
<tr>
<td>PSY1010</td>
<td>Intro to Psychology</td>
<td>1010</td>
<td>PSY Psychology</td>
<td>4</td>
<td>History of psychology, research methods, brain and behavior, sensation, perception, consciousness, learning, memory, cognition, language, intelligence, development, motivation, emotion, social behavior, personality, health, psychopathology, therapy, and applied psychology - e.g. industrial organizational psychology. Integrated Writing course.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>REL3760</td>
<td>The Four Gospels</td>
<td>3760</td>
<td>REL Religion</td>
<td>3</td>
<td>Literary and historical study of the four Gospels in the Christian Bible, aiming to discern their purposes in writing, reconstruct their communities, and reflect on the meaning of their presentations of Jesus. Some attention to the problem of the historical Jesus.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>EES6260</td>
<td>EES Seminar</td>
<td>6260</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>0.5</td>
<td>Exposes students to selected research topics by reading and discussing, as a group, journal articles, book chapters, and research abstracts in earth and environmental sciences. Occasional lectures are presented by faculty or invited researchers. Students may give presentations prepared for professional meetings to the seminar for feedback and evaluation. Students conducting research may present their work in progress.</td>
<td>GR</td>
<td>SE</td>
</tr>
<tr>
<td>KNH3600</td>
<td>Catastrophe Response</td>
<td>3600</td>
<td>KNH Kinesiology &amp; Health</td>
<td>3</td>
<td>Addresses emergency management education, including disaster preparedness and response strategies, for catastrophic events.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>GEO4440</td>
<td>Advanced GIS Apps</td>
<td>4440</td>
<td>GEO Geography</td>
<td>4</td>
<td>Advanced geo-spatial analysis techniques using ArcView and ArcGIS software. Use of GIS analysis and technology to describe spatial elements of public and private sector development issues and forecast change.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>ASM7072</td>
<td>Aerospace Medicine</td>
<td>7072</td>
<td>ASM Epidemiology</td>
<td>4</td>
<td>An introduction to epidemiological studies, descriptive and clinical epidemiology, experimental and observational investigations, prospective and retrospective studies, mortality and morbidity measurements, life tables, chronic and infectious diseases, with emphasis on preventive medicine and public health.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>PLS6360</td>
<td>Criminal Law</td>
<td>6360</td>
<td>PLS Political Science</td>
<td>3</td>
<td>Examines the nature of the criminal law and reviews the law pertaining to criminal liability; inchoate crimes; the elements of crimes against persons, property, and habitation; and the defenses to criminal actions.</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>PHY3460</td>
<td>Concepts App Physics</td>
<td>3460</td>
<td>PHY Physics</td>
<td>4</td>
<td>Basic concepts and applications in physics including electricity, magnetism, optics, waves, simple machines. Inquiry learning environment emphasizing science process and mathematical reasoning, problem-solving, technology and societal connections.</td>
<td>UG</td>
<td>LB</td>
</tr>
<tr>
<td>KNH2000</td>
<td>Army Fitness Tr. III</td>
<td>2000</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Army Fitness Training. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
</tr>
<tr>
<td>CHM3520L</td>
<td>Physical Chem Lab II</td>
<td>3520L</td>
<td>CHM Chemistry</td>
<td>2</td>
<td>Experimental methods of physical chemistry. Integrated Writing course.</td>
<td>UG</td>
<td>LB</td>
</tr>
<tr>
<td>PHY2420</td>
<td>Intro to Modern Physics</td>
<td>2420</td>
<td>PHY Physics</td>
<td>3</td>
<td>Phenomenology and theoretical concepts of modern physics. Special theory of relativity, quantum theory, atomic and molecular structure and spectra, x-rays and solid state physics, nuclear physics, and instrumentation for nuclear physics research.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>TH4250</td>
<td>Adv Design Studio II</td>
<td>4250</td>
<td>TH Theatre</td>
<td>3</td>
<td>Continued intensive study of theatrical costume, scenery, lighting, and/or sound design with a focus on script interpretation. Includes practical design work with an emphasis on produced designs, professional development, and specialization in the student's area of design.</td>
<td>UG</td>
<td>ST</td>
</tr>
<tr>
<td>REL3630</td>
<td>Women Religion America</td>
<td>3630</td>
<td>REL Religion</td>
<td>3</td>
<td>Role of women in American religious history, with special reference to the diversity of women's religious experiences.</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO6460</td>
<td>6460</td>
<td>Advanced Cell Biology</td>
<td>BIO</td>
<td>Biology</td>
<td>3</td>
<td>Students will gain a thorough understanding about eukaryotic cell structures and functions including the organization of the cell nucleus, DNA replication, the multiple steps of gene expression, membrane composition and dynamics, and the importance of the cytoskeleton for cell motility, cell division and cell adhesion.</td>
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<tr>
<td>Fall 2022</td>
<td>EGR1980R</td>
<td>1980R</td>
<td>Special Topics in EGR Rec</td>
<td>EGR</td>
<td>Engineering</td>
<td>0</td>
<td>Required recitation for EGR 1980.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG1900</td>
<td>1900</td>
<td>Internship</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>1</td>
<td>Students earn general elective credit for a future internship experience by working in a major related job that provides meaningful work experience to enhance technical skills and promote professional development. Students must complete all of the 2nd year courses as listed in the program model. Minimum of 10 hours per week for each credit hour registered.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH2260</td>
<td>2260</td>
<td>Graphics II: Drafting</td>
<td>TH</td>
<td>Theatre</td>
<td>3</td>
<td>Introduction to and practice with the basic tools, materials and techniques used in drafting scenic designs for the theatre.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SLI4930</td>
<td>4930</td>
<td>Practicum II</td>
<td>SLI</td>
<td>Sign Language Interpreting</td>
<td>3</td>
<td>Second practicum placement in community, business or post secondary educational setting under the direct supervision of a mentor interpreter. 150 hour minimum on-site placement hours.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME7112</td>
<td>7112</td>
<td>Proc of Medical Images</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>3</td>
<td>Digital image processing and its application to medical images. Topics include image display, compression, filtering, spatial versus frequency domain techniques, edge detection, morphological operations, registration and classification. ( \text{&lt;b&gt; Department Managed Prerequisite(s): Graduate level BME 7110 Minimum Grade of D}&lt;/b&gt; )</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO4070</td>
<td>4070</td>
<td>Wetlands Biology</td>
<td>BIO</td>
<td>Biology</td>
<td>5</td>
<td>Ecological investigation of wetlands of United States, with emphasis on Midwest. Covers soils, vegetation, hydrology, conservation, and restoration. Primarily field oriented and some lecture.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM4650</td>
<td>4650</td>
<td>Physical Polymer Chem</td>
<td>CHM</td>
<td>Chemistry</td>
<td>2</td>
<td>Structural and physical aspects of macromolecules. Emphasizes the relationship of polymer structure to physical and mechanical properties.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HED3350</td>
<td>3350</td>
<td>Health Communication</td>
<td>HED</td>
<td>Health Education</td>
<td>3</td>
<td>Explores the applications of social marketing and communication theory as they relate to the development of strategies designed to enhance health education and promotion programs. Students will be introduced to basic perspective of public health education, particularly the fundamental skills of communicating health information.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY4300</td>
<td>4300</td>
<td>Abnormal Psych Cap</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
<td>This capstone examines conceptualizations of psychopathologies and their connections to personality pathology. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS6260</td>
<td>6260</td>
<td>Supreme Court in Am Pol</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Role of the Supreme Court in the Constitution, its relations with other branches and agencies of the U.S. government, and significant events and trends in the Court.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATR3030</td>
<td>3030</td>
<td>Therapeutic Exercise</td>
<td>ATR</td>
<td>Athletic Training</td>
<td>3</td>
<td>Knowledge, skills, and dispositions required of the entry-level certified athletic trainer to plan, implement, document, and evaluate the efficacy of therapeutic exercise programs for the rehabilitation/reconditioning of injuries to and illnesses of the physically active.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>WGS4000</td>
<td>4000</td>
<td>Topics Gender&amp;Sexuality</td>
<td>WGS</td>
<td>Women, Gender, and Sexuality</td>
<td>3</td>
<td>Issues, approaches, and topics in the field of gender and sexuality studies. Titles and topics vary. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1180A</td>
<td>1180A</td>
<td>Dance: Swing</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Dance: Swing. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FR6650</td>
<td>6650</td>
<td>Topics in FR Lit &amp; Film</td>
<td>FR</td>
<td>French</td>
<td>3</td>
<td>Examination of selected topics in French literature and film. Investigation of various themes, myths, genres, literary movements or characters. Titles vary. Taught in French. ( \text{&lt;b&gt;Department Managed Prerequisite(s): Graduate level FR 5110 Minimum Grade of D or Graduate level FR 5120 Minimum Grade of D or Graduate level FR 5210 Minimum Grade of D or Graduate level FR 5220 Minimum Grade of D}&lt;/b&gt; )</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM2110R</td>
<td>2110R</td>
<td>Organic Chemistry I Recitat</td>
<td>CHM</td>
<td>Chemistry</td>
<td>0</td>
<td>Required recitation for CHM 2110.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME4820</td>
<td>4820</td>
<td>Corrosion</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>This course covers the principles of the corrosion and prevention methods from thermodynamics to electrochemical kinetics. Fundamental of passivation, anodic polarization, and cathodic protection will be elucidated. Laboratory exercises are included. ( \text{&lt;b&gt;Department Managed Prerequisite(s): Undergraduate level ME 2700 Minimum Grade of D and Undergraduate level ME 3310 Minimum Grade of D or Undergraduate level ME 3750 Minimum Grade of D}&lt;/b&gt; )</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FR3550</td>
<td>3550</td>
<td>French Service Learning</td>
<td>FR</td>
<td>French</td>
<td>3</td>
<td>Students engage in an international service learning project in teaching, translation or interpreting in a Francophone country. Student must be enrolled in a Wright State sponsored Ambassador Program to a French-speaking country, such as France, Canada (Quebec), or Senegal. ( \text{&lt;b&gt;Department Managed Prerequisite(s): Undergraduate level FR 2020 Minimum Grade of D}&lt;/b&gt; )</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>URS4210</td>
<td>4210</td>
<td>Public Leadership Change</td>
<td>URS</td>
<td>Urban Affairs</td>
<td>3</td>
<td>Examines leadership role of the public and nonprofit administrators in formulating programs, policies, and service delivery options. Explores topics such as managing internal and external environments, improving productivity and effectiveness, policy/program creation, and the dynamics of change.</td>
</tr>
<tr>
<td>Code</td>
<td>Title</td>
<td>Credits</td>
<td>Description</td>
<td>Department Managed Prerequisites</td>
<td>Type</td>
<td>Format</td>
<td></td>
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<tr>
<td>HST4550</td>
<td>U.S. Foreign Relations</td>
<td>4550</td>
<td>Examines main currents, prominent issues, key individuals and major events in the history of U.S. relations with other countries and regions. Topics vary. Integrated Writing course.</td>
<td></td>
<td>UG</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>PSY4240</td>
<td>Attention &amp; Perform Cap</td>
<td>4240</td>
<td>Communication-intensive seminar integrating knowledge on attention and performance. Integrated Writing course.</td>
<td></td>
<td>UG</td>
<td>Seminar</td>
<td></td>
</tr>
<tr>
<td>MUST730</td>
<td>Gen Music Fund K-12</td>
<td>7730</td>
<td>Exploration and examination of fundamental music instruction standards and methodologies with practical application to various age levels of music education. Students will apply principles, techniques, and activities associated with general music to their own teaching situations, whether ensembles or classroom.</td>
<td></td>
<td>GR</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>PSY3930L</td>
<td>Beh Neuroscience Methods Lab</td>
<td>3930L</td>
<td>Required laboratory for PSY 3930.</td>
<td></td>
<td>UG</td>
<td>Lab</td>
<td></td>
</tr>
<tr>
<td>RHB4700</td>
<td>Special Topics</td>
<td>4700</td>
<td>Independent study in areas of interest to students that are not readily available in any existing course. Topics vary. May be taken for letter grade or pass/unsatisfactory.</td>
<td></td>
<td>UG</td>
<td>I Study</td>
<td></td>
</tr>
<tr>
<td>URS4460</td>
<td>Transportation Principle</td>
<td>4460</td>
<td>Principles related to developing and managing public and human service transportation systems. Role of public and human service transportation in society, history and geography of public transportation, and spatial, funding, organizational, cost benefit, labor, and customer service issues.</td>
<td></td>
<td>UG</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>EDL7770</td>
<td>Edu Leadership Practicum</td>
<td>7770</td>
<td>Focusing on the roles performed by practicing educational leaders. Students will observe, interact and draw conclusions from field experience by integrating the field experience with knowledge, skills, and dispositions gained in previous coursework.</td>
<td></td>
<td>GR</td>
<td>Internship</td>
<td></td>
</tr>
<tr>
<td>BMB4870</td>
<td>BMB Sem with Dev Rch</td>
<td>4870</td>
<td>Students will attend graduate students' presentations.</td>
<td></td>
<td>UG</td>
<td>Seminar</td>
<td></td>
</tr>
<tr>
<td>TH4200</td>
<td>Applied Theatre Tech II</td>
<td>4200</td>
<td>Advanced study in technical execution. Emphasis on daily operation of theatre production facilities and shops. Participation in all major department productions required.</td>
<td></td>
<td>UG</td>
<td>Lab</td>
<td></td>
</tr>
<tr>
<td>NUR2300</td>
<td>Nursing Fundamentals</td>
<td>2300</td>
<td>This is the second course in a two-course sequence. Develops competency at a beginning level in selected components of adult health assessment and associated psychomotor skills to promote, maintain, and restore the health of the client. Applies skills in the laboratory and clinical setting.</td>
<td></td>
<td>UG</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>EES3700</td>
<td>HAZWOPER Refresher</td>
<td>3700</td>
<td>Refresher training covering management of hazardous materials and emergency response in the workplace, at spills, or at hazardous waste sites. Satisfies the requirements for 8 hours of refresher training specified under OSHA 29 CFR 1910.120.</td>
<td></td>
<td>UG</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>LDR7050</td>
<td>Moral Ldrship Eths, Auth&amp;Soc Re</td>
<td>7050</td>
<td>This course focuses on the foundations of moral leadership including ethics, authenticity, and social responsibility.</td>
<td></td>
<td>GR</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>BIO3710</td>
<td>Forensic DNA Profiling</td>
<td>3710</td>
<td>Analysis of videos addressing DNA profiling. Promotes critical thinking about science associated with forensic DNA profiling, particularly in criminal cases where DNA evidence plays an important role. Integrated Writing course.</td>
<td></td>
<td>UG</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>ENG6300</td>
<td>Studies in American Lit</td>
<td>6300</td>
<td>Intensive study of American literary history and/or the work of individual American writers. Intended to develop an understanding of literature within the contexts of the authors life, literary production, and historical background.</td>
<td></td>
<td>GR</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>EES6590</td>
<td>Adv Aquatic Geochem</td>
<td>6590</td>
<td>Fundamentals of biogeochemistry in aquatic systems, emphasizing physical, geological, chemical, and biological interactions in marine and lacustrine environments. Topics include the biogeochemical cycling of nutrients, trace metals, gases, energy, and chemical equilibria and rates in natural waters.</td>
<td></td>
<td>GR</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>EGR1980</td>
<td>Special Topics in EGR</td>
<td>1980</td>
<td>Special topics in Engineering and Computer Science.</td>
<td></td>
<td>UG</td>
<td>Recitation</td>
<td></td>
</tr>
<tr>
<td>PN7100</td>
<td>Breakthroughs in Neurosci</td>
<td>7100</td>
<td>Students will be able to critically read original literature and identify the creativity, logic and insight behind research breakthroughs in neuroscience.</td>
<td></td>
<td>GR</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>CS7800</td>
<td>Information Retrieval</td>
<td>7800</td>
<td>This course covers foundations of information retrieval systems. Specifically, it discusses models for information retrieval; techniques for indexing and searching; design, implementation, and evaluation of web search engine; and algorithms for classification and clustering.</td>
<td>Department Managed Prerequisite(s): Undergraduate level CS 3100 Minimum Grade of D or Graduate level CS 5100 Minimum Grade of D</td>
<td>GR</td>
<td>Lecture</td>
<td></td>
</tr>
<tr>
<td>ED7970</td>
<td>Learn ED Education</td>
<td>7970</td>
<td>This course guides implementation of individual Master’s thesis projects in education. The course includes inquiry and data gathering through analysis and solution identification, writing of thesis, and formal presentation.</td>
<td></td>
<td>GR</td>
<td>I Study</td>
<td></td>
</tr>
<tr>
<td>SLI1200</td>
<td>Interpreting Profession</td>
<td>1200</td>
<td>Overview of the profession of sign language interpreting, including the Code of Professional Conduct, certification criteria, the roles and responsibilities of an interpreter, compensation, group dynamics, cross-cultural issues, historical developments, and current trends.</td>
<td></td>
<td>UG</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>PLS4660</td>
<td>Politics in South Asia</td>
<td>4660</td>
<td>Political institutions and political, economic, security and international relations issues in India, Pakistan, Sri Lanka, Bangladesh and Nepal. Integrated Writing course.</td>
<td></td>
<td>UG</td>
<td>Seminar</td>
<td></td>
</tr>
<tr>
<td>KNH1000B</td>
<td>Special Topics</td>
<td>1000B</td>
<td>Activity course for a variety of content areas</td>
<td></td>
<td>UG</td>
<td>Lab</td>
<td></td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIOE700</td>
<td>6700</td>
<td>Biomedical Engineering</td>
<td>Required recitation for BM 7030.</td>
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<tr>
<td>Fall 2022</td>
<td>BMB7030R</td>
<td>7030R</td>
<td>Research Ethics Rec</td>
<td>Recitation</td>
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<tr>
<td>Fall 2022</td>
<td>BIO6700</td>
<td>6700</td>
<td>General Entomology</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>CSP4270</td>
<td>4270</td>
<td>Cog Neuro Capstone</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>EDT7230</td>
<td>7230</td>
<td>SLR Resources for YA</td>
<td>Lecture</td>
<td></td>
<td></td>
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</tr>
<tr>
<td>Fall 2022</td>
<td>EC4010</td>
<td>4010</td>
<td>Managerial Econ &amp; Strat</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>CS4840</td>
<td>4840</td>
<td>Intro Machine Learning</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>ME7140</td>
<td>7140</td>
<td>Nonlin Finite Elmt Anal</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>BIO8990</td>
<td>8990</td>
<td>Graduate Research</td>
<td>Independent Study</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>FREN6940</td>
<td>6940</td>
<td>Cuisine et Film</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>PLS3990</td>
<td>3990</td>
<td>Selected Subjects</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>EDL9150</td>
<td>9150</td>
<td>Adv Data Driven Decision</td>
<td>Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>PLS4460</td>
<td>4460</td>
<td>Public Budgeting</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>ME7740</td>
<td>7740</td>
<td>Quantitative Microscopy</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>ATH4020</td>
<td>4020</td>
<td>Anthropology of Religion</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>CHM5560</td>
<td>5560</td>
<td>Physical Chem Life Sci</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>PHY7540</td>
<td>7540</td>
<td>Geophysics</td>
<td>Seminar</td>
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<tr>
<td>Fall 2022</td>
<td>MTH4400</td>
<td>4400</td>
<td>History of Mathematics</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>ART4030</td>
<td>4030</td>
<td>Studies in Drawing</td>
<td>Lab</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>GEO4900</td>
<td>4900</td>
<td>Applied Research Project</td>
<td>Seminar</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>EES6360</td>
<td>6360</td>
<td>Env Field Tech</td>
<td>Lab</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>PLS4260</td>
<td>4260</td>
<td>Supreme Court</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>CS7920</td>
<td>7920</td>
<td>Independent Study in CS</td>
<td>Independent Study</td>
<td></td>
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</tr>
<tr>
<td>Fall 2022</td>
<td>EDL9555</td>
<td>9555</td>
<td>CIPD Practicum</td>
<td>EDL</td>
<td>Educational Leadership</td>
<td>3</td>
<td>Provides experience in school leadership and administration at the district level. Candidates perform administrative tasks under the supervision of a licensed school district administrator.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GER4160</td>
<td>4160</td>
<td>German Lit 18th Cent</td>
<td>GER</td>
<td>German</td>
<td>3</td>
<td>Representative works of Goethe and Schiller. &lt;br&gt;Department Managed Prerequisite(s): Undergraduate level GER 3110 Minimum Grade of D or Undergraduate level GER 3220 Minimum Grade of D or Undergraduate level GER 3250 Minimum Grade of D or Undergraduate level GER 3260 Minimum Grade of D or Undergraduate level GER 3310 Minimum Grade of D or Undergraduate level GER 3320 Minimum Grade of D or Undergraduate level GER 3330 Minimum Grade of D or Undergraduate level GER 3510 Minimum Grade of D or Undergraduate level GER 3610 Minimum Grade of D. &lt;br&gt;</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SCM3340</td>
<td>3340</td>
<td>Global SCM</td>
<td>SCM</td>
<td>Supply Chain Management</td>
<td>3</td>
<td>Management of the logistics function in supply chains, including physical distribution activities such as transportation, facility location and materials handling.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH3470</td>
<td>3470</td>
<td>One Person Shows</td>
<td>TH</td>
<td>Theatre</td>
<td>2</td>
<td>Elements necessary in the development of a one person show resulting in a solo performance.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME4704</td>
<td>4704</td>
<td>Advanced Medical Imaging</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>4</td>
<td>Generation, effects, and detection of ionizing radiation and its application to plain radiographic imaging in medicine.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY3130</td>
<td>3130</td>
<td>Methods in Clinical Psych</td>
<td>PSY</td>
<td>Psychology</td>
<td>4</td>
<td>This course provides students with a critical knowledge of qualitative research methods in psychology and with competencies necessary to carry out this kind of research in conjunction with quantitative methods and independently in its own right. The course includes a focus on the history of use, the philosophical foundations, and the scientific status of qualitative research methods in psychology. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LAT2010</td>
<td>2010</td>
<td>Intermediate Latin I</td>
<td>LAT</td>
<td>Latin</td>
<td>3</td>
<td>Review of essentials and reading in selected authors.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FR3500</td>
<td>3500</td>
<td>French Ambassador Prog</td>
<td>FR</td>
<td>French</td>
<td>3</td>
<td>Professor-led study abroad program in a French speaking country, such as France, Canada (Québec or Acadia), a Francophone Caribbean or African country. Taught in French. Department Managed Prerequisite(s): Undergraduate level FR 2020 Minimum Grade of D.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH4360</td>
<td>4360</td>
<td>Graphics II: Rendering</td>
<td>TH</td>
<td>Theatre</td>
<td>3</td>
<td>Further development of skills used in creating theatrical renderings, costume plates and lighting sketches. Figure drawing, depiction of light and shadow, and traditional and non-traditional media and techniques.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SLI4550</td>
<td>4550</td>
<td>Interpreting for Theater</td>
<td>SLI</td>
<td>Sign Language Interpreting</td>
<td>3</td>
<td>Provides students with basic skills in musical performance and theatrical interpreting. Script analysis and translation, theater basics, character development, and interpreter issues will be addressed as well as musical styles and interpretation.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME2120R</td>
<td>2120R</td>
<td>Statics Recitation</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>0</td>
<td>Required recitation for ME 2120. Department Managed Prerequisite(s): Undergraduate level EGR 1010 Minimum Grade of D or Undergraduate level MTH 2310 Minimum Grade of D and Undergraduate level ME 1040 Minimum Grade of D and Undergraduate level PHY 2400 Minimum Grade of D.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>HED2340</td>
<td>2340</td>
<td>Health Behaviors</td>
<td>HED</td>
<td>Health Education</td>
<td>3</td>
<td>Addresses the theories of health behavior and health behavior change. Students develop a theory-based logic map for one risk behavior or protective health behavior.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ES7180</td>
<td>7180</td>
<td>Chem Processes in Envir</td>
<td>ES</td>
<td>Environmental Sciences</td>
<td>3</td>
<td>Skills are developed to predict behavior and movement of chemical contaminants in atmospheric, aquatic and soil systems. Physical and chemical properties of contaminants and environmental interactions are evaluated to determine their ultimate fate. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES4270</td>
<td>4270</td>
<td>Process Geomorphology</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>3</td>
<td>Study of the processes that create and modify landforms. Classifications of landforms and what they reveal of past geologic processes and climates. Integrated Writing course. Department Managed Prerequisite(s): Undergraduate level EES 1050 Minimum Grade of D or Undergraduate level EES 2510 Minimum Grade of D or Undergraduate level EES 2550 Minimum Grade of D.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM5200</td>
<td>5200</td>
<td>Adv Inorganic Chem I</td>
<td>CHM</td>
<td>Chemistry</td>
<td>3</td>
<td>Principles and concepts of inorganic chemistry, including the periodic table, atomic structure, bonding, coordination compounds, and an introduction to group theory.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ECO5540</td>
<td>5540</td>
<td>Eco and World Hist</td>
<td>ECO</td>
<td>Center for Economic Educ.</td>
<td>2</td>
<td>This course is designed to link world historical events and economic concepts. Questions like, Why do some economies grow and prosper while others remain stagnant or decline? What causes people to make choices that help or hinder economic growth? are among the topics that will be explored. This course will assist teachers in grades 6-12 with integrating economic concepts into an existing world history curriculum. This course has a fee that is non-refundable once the term begins.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME7760</td>
<td>7760</td>
<td>Transformatio n of Solids</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>This is the first course in a two course sequence. Covers the theory of homogenous and heterogeneous nucleation and diffusion and interface controlled growth. Department Managed Prerequisite(s): Graduate level ME 5760 Minimum Grade of D.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUS2620</td>
<td>2620</td>
<td>German Diction</td>
<td>MUS</td>
<td>Music</td>
<td>2</td>
<td>For students of singing. Application of the International Phonetic Alphabet to German. Includes intensive readings of song lyrics.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE6100</td>
<td>6100</td>
<td>Nano/Micro Fabrication</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>3</td>
<td>This course covers the history, design, and fabrication of CMOS and micro-electro-mechanical systems (MEMS). Typical fabrication methods cover CMOS, front-end-of-line (FEOL), back-end-of-line (BEOL), surface and bulk micromachining. Typical VLSI devices and selected RF MEMS are covered.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Department/Field</td>
<td>Notes</td>
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<tr>
<td>PLS4090</td>
<td>4090</td>
<td>Legal Judging&lt;br&gt;PLS Political Science</td>
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<td>SOC4500</td>
<td>4500</td>
<td>Sociological Theory&lt;br&gt;SOC Sociology</td>
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<tr>
<td>PLS5330</td>
<td>6330</td>
<td>Public Opinion&lt;br&gt;PLS Political Science</td>
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<tr>
<td>BME6650</td>
<td>6650</td>
<td>Six Sigma for Engineers&lt;br&gt;BME Biomedical Engineering</td>
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<td>GR</td>
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<tr>
<td>EDS6610</td>
<td>6610</td>
<td>Inter Spec Methods Mild to Mod&lt;br&gt;EDS Education - Special Education</td>
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<td>LE</td>
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<tr>
<td>PSY6510</td>
<td>6510</td>
<td>Cross-Cul Psy&lt;br&gt;PSY Psychology</td>
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<tr>
<td>CEG6330L</td>
<td>6330L</td>
<td>Micropro Embedded System Lab&lt;br&gt;CEG Computer Engineering</td>
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<td>GR</td>
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<tr>
<td>CTE4900</td>
<td>4900</td>
<td>Independent Study CTE&lt;br&gt;CTE Career and Technical Education</td>
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<td>IS</td>
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<tr>
<td>EDL9710</td>
<td>9710</td>
<td>School Dist Leadership&lt;br&gt;EDL Educational Leadership</td>
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<tr>
<td>MUA3410</td>
<td>3410</td>
<td>Applied Music&lt;br&gt;MUA Music: Applied Music</td>
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<td>IS</td>
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<tr>
<td>EGR4980</td>
<td>4980</td>
<td>Special Topics in EGR&lt;br&gt;EGR Engineering</td>
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<tr>
<td>ART4490</td>
<td>4490</td>
<td>Senior Painting Thesis&lt;br&gt;ART Art</td>
<td></td>
<td>IS</td>
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<td></td>
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<tr>
<td>CHM6370</td>
<td>6370</td>
<td>Electroanalytic Chem&lt;br&gt;CHM Chemistry</td>
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<tr>
<td>SOC5210</td>
<td>5210</td>
<td>Sociology of Deviance&lt;br&gt;SOC Sociology</td>
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<tr>
<td>SAA6680</td>
<td>6680</td>
<td>Career Dev Prog/Employ&lt;br&gt;SAA Student Affairs in Higher Ed</td>
<td></td>
<td>LE</td>
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<tr>
<td>LAT6530</td>
<td>6530</td>
<td>Roman Hist &amp; Biography&lt;br&gt;LAT Latin</td>
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<td>LE</td>
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<tr>
<td>PL6490</td>
<td>6490</td>
<td>Inf Pol Gender Violence&lt;br&gt;PLS Political Science</td>
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<td>LE</td>
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<td>PTX8200</td>
<td>8200</td>
<td>Communicatio ns in Scienc&lt;br&gt;PTX Pharmacology/Toxicology</td>
<td></td>
<td>LE</td>
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<td>PSY6130</td>
<td>6130</td>
<td>Psy in Film Cap&lt;br&gt;PSY Psychology</td>
<td></td>
<td>LE</td>
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<td>URS6410</td>
<td>6410</td>
<td>Cities and Technology&lt;br&gt;URS Urban Affairs</td>
<td></td>
<td>LE</td>
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<td>REL5120</td>
<td>5120</td>
<td>Modern Jewish Thought&lt;br&gt;REL Religion</td>
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<td>KNH7530</td>
<td>7530</td>
<td>Assessment in Adapted PE&lt;br&gt;KNH Kinesiology &amp; Health</td>
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<td>LE</td>
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<tr>
<td>GR1020</td>
<td>1020</td>
<td>Beginning Greek II&lt;br&gt;GR Greek</td>
<td></td>
<td>LE</td>
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</table>

Fall 2022

Examine the history of the Supreme Court and the theoretical and empirical perspectives on legal judging. Integrated Writing course.

Fall 2022

Readings in an area of specialized interest in sociological theory. Topics vary. Integrated Writing course.

Fall 2022

Opinion formation in American politics; relationship of opinion to public policy; voting behavior in American elections; role of mass media and political interest groups in the policy process; and development of political attitudes and values.

Fall 2022

Practical application of Six Sigma tools in production and service contexts. Includes videos and case studies of real-world applications. Six Sigma Green Belt Certificate awarded to students upon successful completion of the course and in-class project. Department Managed Prerequisite(s): Graduate level IHE 6150 Minimum Grade of C

Fall 2022

Practices and procedures used in developing elementary and secondary curricula for students with mild to moderate educational needs. Universal design, academic adaptations, and development/implementation of the IEP.

Fall 2022

Communication-intensive seminar integrating knowledge on Cross-Cultural Psychology. Explores national differences in perception, cognition, and self-concept as well as in personality dynamics and interpersonal interactions, and addresses the challenges of globalization.

Fall 2022

Required laboratory for CEG 6330.

Fall 2022

Independent study for CTE candidates. Topics vary.

Fall 2022

Superintendent, staff, school board, unions, and community strategic roles, limits, and responsibilities in light of local, state, and federal regulations and political pressures.

Fall 2022

Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music.

Fall 2022

Special topics in Engineering and Computer Science.

Fall 2022

Production of cohesive, substantial body of work representing an investigation of a specific visual idea or problem. Culmination of undergraduate study in painting and foundation of an individual direction beyond the BFA experience.

Fall 2022

Fundamental principles of electrochemistry and the application of electrochemical methods to chemistry and chemical analysis.

Fall 2022

Extensive exploration of the various sociological approaches to the study of deviance and social disorganization with emphasis on contemporary sociological theory and research.

Fall 2022

Focus of the course will be on understanding group facilitation dynamics, working with and understanding individuals from diverse backgrounds, applying Career Development Facilitator ethical guidelines to real world situations, writing and critiquing job search correspondence, evaluating interviewing models, and developing appropriate career programs for various individuals and groups.

Fall 2022

Readings in Latin focusing on prose narrative in history and biography. Authors include Sallust, Livy, Tacitus, and Suetonius. Titles vary.

Fall 2022

Cross cultural examination of gender violence. Considers the range of violence, its sources, and solutions. Topics include domestic abuse, rape, female genital surgeries, prostitution, and reproductive rights.

Fall 2022

A crash course in bringing clarity, plain language and fun to scientific communications.

Fall 2022

Communication-intensive seminar integrating knowledge examining psychology in film.

Fall 2022

Studies the evolving relationship between technology and urban growth, physical form, government, and politics. Explores how technological fixes for complex urban problems have shaped urban development and politics.

Fall 2022

Provides an overview of developing and diagnosing diverse motor, physical, and sensory deficiencies in exceptional children. Administrative procedures and interpretation of numerous assessment instruments will be covered.

Fall 2022

Essentials of the Greek language.
<table>
<thead>
<tr>
<th>Semester</th>
<th>Code</th>
<th>Title</th>
<th>Credits</th>
<th>Description</th>
<th>Type</th>
<th>Comb</th>
<th>Lab/Lecture</th>
<th>Co-reqs</th>
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<tr>
<td>Fall 22</td>
<td>MTE6480</td>
<td>Calculus Mid SchI Tchr</td>
<td>4</td>
<td>Pre-calculus Mathematics and its applications to real-world problems. Focus on problem-solving.</td>
<td>GR</td>
<td>UG</td>
<td>Lab/Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>EGR7910</td>
<td>MEIE Team Project I</td>
<td>1</td>
<td>Capstone project focusing on design and implementation of a major engineering project.</td>
<td>GR</td>
<td>UG</td>
<td>Lab/Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>ME6680</td>
<td>Experimental Nanoscience</td>
<td>3</td>
<td>Introduction to nanoscience. Focus on the synthesis and properties of nanomaterials.</td>
<td>GR</td>
<td>UG</td>
<td>Lab/Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>EDL9450</td>
<td>Ady Curriculum Theory</td>
<td>3</td>
<td>Development of curriculum theories from original sources and relating those theories to philosophical presuppositions and social-cultural foundations. Course also focuses on the critical evaluation of curriculum theories and models.</td>
<td>GR</td>
<td>UG</td>
<td>Lab/Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>EDL7950</td>
<td>Supervising Instr &amp; Prsnl</td>
<td>3</td>
<td>Supervising instruction and personnel.</td>
<td>GR</td>
<td>UG</td>
<td>Lab/Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>TH3830</td>
<td>Acting Mus Theatre</td>
<td>3</td>
<td>Musical theatre acting skills using texts from the nineteenth and early to mid-twentieth centuries. Emphasis on mastering a range of performance styles.</td>
<td>GR</td>
<td>UG</td>
<td>Lab/Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>TH3900</td>
<td>Projects in Theatre</td>
<td>1</td>
<td>Advanced individual work.</td>
<td>UG</td>
<td>PR</td>
<td>Practicum</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
</tr>
<tr>
<td>Fall 22</td>
<td>EED4100</td>
<td>Science Methods P-5</td>
<td>3</td>
<td>Curricula and materials for teaching P-5 science with emphasis on using an integrated multidisciplinary approach to science teaching. Includes development of appropriate learning targets, planning, implementation, assessments, and trends in science education.</td>
<td>UG</td>
<td>LE</td>
<td>Lab/Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>EES4880</td>
<td>Env Law for Scientists</td>
<td>3</td>
<td>Common law principles, environmental statutes, implementing regulations, and enforcement.</td>
<td>UG</td>
<td>LE</td>
<td>Lab/Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>CL55400</td>
<td>Art &amp; Archaeology</td>
<td>3</td>
<td>Greece in the Bronze Age; classical Greece and Rome; and selected areas of Greek and Roman art and archaeology.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>BME7113</td>
<td>Medical Image Analysis</td>
<td>3</td>
<td>Topics of 3-D and 3-D image segmentation and registration; 2-D and 3-D feature selection; validation methods; and visualization techniques for volumetric medical images.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>ACC7160</td>
<td>CPA Exam Concepts</td>
<td>3</td>
<td>Course reviews material typically covered on the CPA exam.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>PSI1110L</td>
<td>Cognitive Assessment Lab</td>
<td>1</td>
<td>Lab provides hands-on learning of the cognitive and achievement measures taught in the course.</td>
<td>GR</td>
<td>LB</td>
<td>Lab/Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>KNH1420</td>
<td>Orienteering/L, and Nav</td>
<td>1</td>
<td>Fundamental skills and knowledge of Orienteering/Land Navigation. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG</td>
<td>LB</td>
<td>Lab/Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>BMS7422</td>
<td>Rehab Engine Systems II</td>
<td>3</td>
<td>Design and application of assistive devices used in rehabilitation of people with disabilities in various systems. Provides an understanding of the problems faced by people with disabilities, and the variety of possible solutions to these problems.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>SL4600</td>
<td>Sign Language Interpreting</td>
<td>4</td>
<td>Enhancement of ability to produce an equivalent message, working simultaneously between the source and target languages of signed and spoken English, focusing on team interpreting, working lengthy segments of discourse, and settings with multiple consumers.</td>
<td>UG</td>
<td>LE</td>
<td>Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
</tr>
<tr>
<td>Fall 22</td>
<td>EES6640</td>
<td>Risk Assessment &amp; Comm</td>
<td>3</td>
<td>Studies the determination of quantitative risk to humans and the environment. Approaches currently used in regulatory activities are described, showing method of hazard identification, sampling, data evaluation, exposure assessment, toxicity assessment, and risk characterization.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<tr>
<td>Fall 22</td>
<td>ED7450</td>
<td>Content Literacies K-12</td>
<td>3</td>
<td>Exploration of content area learning with an emphasis on effective literacy strategies including: vocabulary/concept development, comprehension, writing, technology, and resources to enhance literacy learning for diverse learners in grades K-12.</td>
<td>GR</td>
<td>LE</td>
<td>Lecture</td>
<td>Undergraduate level CHM 1210 Minimum Grade of D and Undergraduate level CEG 4500 Minimum Grade of D or Graduate level CEG 6500 Minimum Grade of D</td>
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<td>Title</td>
<td>Description</td>
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<td>Fall 2022</td>
<td>ATH6000</td>
<td>6000</td>
<td>Political Anthropology</td>
<td>ATH Anthropology</td>
<td>3 (Also PLS 6500/SOC 6000) Focuses on the anthropological approaches to the study of political life cross-culturally. Presents evolutionary and historical approaches to political institutions, and classic anthropological analyses of political systems. Also recent developments in the study of politics as problems related to organization versus relationship, domination versus resistance, freedom versus order, and globalization.</td>
<td>GR LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>FAS2050</td>
<td>2050</td>
<td>Intro to Horticulture</td>
<td>FAS Food and Agricultural Systems</td>
<td>3 Designing, maintaining, and cultivating vegetable gardens. Topics include soil amendments, nutrients, integrated pest management, plant selection, garden layout, harvesting and produce care.</td>
<td>UG LL Lecture/Lab Combination</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>PSY6900</td>
<td>6900</td>
<td>Behavioral Neuro Cap</td>
<td>PSY Psychology</td>
<td>3 Communication-intensive seminar integrating knowledge within behavioral neuroscience.</td>
<td>GR SE Seminar</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>KNH1800</td>
<td>1800</td>
<td>Weight Training; Women</td>
<td>KNH Kinesiology &amp; Health</td>
<td>1 Fundamental skills and knowledge of Weight Training: Women. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG LB Lab</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>SOCS5800</td>
<td>5800</td>
<td>Population and Society</td>
<td>SOC Sociology</td>
<td>3 Introduction to factors influencing the structure and growth of human populations and the social consequences of population change. Emphasizes patterns of fertility, mortality, and migration in today's societies and methods and materials used to study population.</td>
<td>GR LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>ED7901</td>
<td>7901</td>
<td>Co-Teaching Practices</td>
<td>ED Education</td>
<td>1 Centers on the effective implementation of the co-teaching model. Practicing classroom teachers will gain a comprehensive understanding of underlying components of the co-teaching model and their practical application in PK-12 classrooms.</td>
<td>GR SE Seminar</td>
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<tr>
<td>Fall 2022</td>
<td>IHE7520</td>
<td>7520</td>
<td>Eng' Supply Chain Sys</td>
<td>IHE Industrial &amp; Hum Fac Engr</td>
<td>3 Advanced topics in the design of supply chain systems and planning for their operations. Emphasis on model development and solution using operations research techniques. Applications in forecasting, facility location, warehouse design, and integrated distribution planning. Department Managed Prerequisite(s): Graduate level IHE 6711 Minimum Grade of C&lt;sup&gt;b&lt;/sup&gt;</td>
<td>GR LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>GEO2210</td>
<td>2210</td>
<td>NW Human Environments</td>
<td>GEO Geography</td>
<td>3 Human development and the impact of globalization on patterns of land use, population, economic activity, culture, settlements, and political systems in Asia, Africa, Latin America and the Middle East. Credit will not be given for GEO 2210 Norwestern Human Environments to students who have already successfully completed CST 2210 Comparative Northwestern Environments. Integrated Writing course.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>EDS6500</td>
<td>6500</td>
<td>Spec Studies in Spec Ed</td>
<td>EDS Education Spec Ed</td>
<td>0.5 Independent Study in a selected area of special education</td>
<td>GR IS Independent Study</td>
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<tr>
<td>Fall 2022</td>
<td>CEG6970</td>
<td>6970</td>
<td>Independent Study in CEG</td>
<td>CEG Computer Engineering</td>
<td>1 Independent study in computer engineering.</td>
<td>GR IS Independent Study</td>
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<tr>
<td>Fall 2022</td>
<td>ART4370</td>
<td>4370</td>
<td>Install/Perform Sculpt</td>
<td>ART Art</td>
<td>3 Development of personal concepts and aesthetic expression in the fabrication and experimentation with sculptural media. Emphasis on individualized approach to sculptural media problems. This course has a fee that is non-refundable once the term begins. Department Managed Prerequisite(s): Undergraduate level ART 3750 Minimum Grade of D and Undergraduate level ART 3760 Minimum Grade of D and Undergraduate level ART 3770 Minimum Grade of D and Undergraduate level ART 3780 Minimum Grade of D&lt;sup&gt;a&lt;/sup&gt;</td>
<td>UG LB Lab</td>
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<tr>
<td>Fall 2022</td>
<td>ME6210L</td>
<td>6210L</td>
<td>Mechanical Vibrations Lab</td>
<td>ME Mechanical and Materials Engr</td>
<td>0 Required laboratory for ME 6210.</td>
<td>GR LB Lab</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>PSY5510</td>
<td>5510</td>
<td>Social Psychology</td>
<td>PSY Psychology</td>
<td>3 Current theories and experimental findings examining the situational and social causes underlying people's attitudes, beliefs, and behaviors.</td>
<td>GR LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>CHI3120</td>
<td>3120</td>
<td>Adr Chinese Conversation</td>
<td>CHI Chinese</td>
<td>3 Continuation of Chinese 3110 pursuing a balance of the four basic language skills: reading, writing, listening, and speaking in Chinese with a focus on conversation. Department Managed Prerequisite(s): Undergraduate level CHI 3110 Minimum Grade of D&lt;sup&gt;b&lt;/sup&gt;</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>ME6770</td>
<td>6770</td>
<td>Mech Behavior of Metals</td>
<td>ME Mechanical and Materials Engr</td>
<td>3 Crystal plasticity and single crystal behavior. Introduction to dislocation theory. Strengthening mechanisms in metals. Fracture, fatigue, and creep behavior of metals. Department Managed Prerequisite(s): Undergraduate level ME 2700 Minimum Grade of D and (Undergraduate level ME 3120 Minimum Grade of D or Graduate level ME 5120 Minimum Grade of D)&lt;sup&gt;a&lt;/sup&gt;</td>
<td>GR LE Lecture</td>
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<td>Fall 2022</td>
<td>ME4860</td>
<td>4860</td>
<td>Metal Forming</td>
<td>ME Mechanical and Materials Engr</td>
<td>3 Fundamentals of principal deformation processing systems including forging, extrusion, rolling, and sheet forming; material response and formability; and mechanics and analysis of selected processes. Department Managed Prerequisite(s): Undergraduate level ME 2700 Minimum Grade of D and Undergraduate level ME 3120 Minimum Grade of D&lt;sup&gt;b&lt;/sup&gt;</td>
<td>UG LL Lecture/Lab Combination</td>
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<tr>
<td>Fall 2022</td>
<td>PSY5110</td>
<td>5110</td>
<td>Abnormal Psychology</td>
<td>PSY Psychology</td>
<td>3 Facts and theories pertaining to abnormal behavior. Topics include classification and diagnosis, and causes and treatment of abnormal behavior.</td>
<td>GR LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>ED6070</td>
<td>6070</td>
<td>Reading and Literacy II</td>
<td>ED Education</td>
<td>3 Extends knowledge of literacy instruction and addresses more advanced levels of literacy including content reading and writing for research and extended response. Candidates are expected to demonstrate instructional procedures within their field placement.</td>
<td>GR LL Lecture/Lab Combination</td>
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<td>Credit Hours</td>
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<td>Department</td>
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<td>MTH6810</td>
<td>6810</td>
<td>Continuous Dynamical Systems</td>
<td>MTH Mathematics</td>
<td>Liberal Arts</td>
<td>Lecture</td>
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<td>IDL7130</td>
<td>7130</td>
<td>Making Online Courses Interact</td>
<td>IDL Instructional Design &amp; Learning</td>
<td>Liberal Arts</td>
<td>Lecture</td>
<td>LE</td>
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<td>PSY4720</td>
<td>4720</td>
<td>Select Visual Alth Cap</td>
<td>PSY Psychology</td>
<td>Psychology</td>
<td>Seminar</td>
<td>UG SE</td>
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<td>HED2320</td>
<td>2320</td>
<td>Core Public Health</td>
<td>HED Health Education</td>
<td>Public Health</td>
<td>Lecture</td>
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<td>Clinical Psy Care Prep</td>
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<td>ENG2100</td>
<td>2100</td>
<td>For a supervised practicum experience</td>
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<tr>
<td>ENG2100</td>
<td>2100</td>
<td>Survey of vocal literature from the 18th through the 20th century emphasizing German lieder, French melodie, and English and American art songs</td>
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<tr>
<td>ENG2100</td>
<td>2100</td>
<td>A learning and supportive environment for students who want to pursue a career in clinical psychology or related mental health fields.</td>
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<tr>
<td>ENG2100</td>
<td>2100</td>
<td>United States relations with India, Pakistan and Afghanistan.</td>
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<td>ENG2100</td>
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<td>Required recitation for BIO 2140.</td>
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**Notes:**
- Courses with a **GR** designation require planned and approved learning objectives, oral and/or written reports, employer evaluation, and conference with the faculty supervisor. May be repeated 3 times.
- Courses with a **LE** designation require morning, afternoon, or evening class time.
- Courses with a **SE** designation are seminar style.
- Courses with a **LB** designation are lab style.
- Courses with a **IS** designation are independent study style.
- Courses with a **GR** designation are graduate level.
- Courses with a **UG** designation are undergraduate level.
- Prerequisite(s): (Undergraduate level EE 4620 Minimum Grade of D and Undergraduate level EE 4620L Minimum Grade of D) or (Graduate level EE 6620 Minimum Grade of C and Graduate level EE 6620L Minimum Grade of C)
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<tr>
<th>Course Code</th>
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<th>Credit</th>
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<tr>
<td>GER5310</td>
<td>Fall 22</td>
<td>3</td>
<td>German</td>
<td>Survey of German Literature</td>
<td>Historical survey of German literature from its beginning to the present. 331: Literature of the Middle Ages, Renaissance, Reformation, Enlightenment, and Storm and Stress. 332: Classicism, Romanticism, Poetic Realism, and Modern Period.</td>
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<tr>
<td>ME4890</td>
<td>Fall 22</td>
<td>1</td>
<td>ME</td>
<td>Special Topics in ME</td>
<td>Special topics course in Mechanical Engineering or Materials Science and Engineering. Topics vary.</td>
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<tr>
<td>CNL3520</td>
<td>Fall 22</td>
<td>3</td>
<td>CNL</td>
<td>Diagnosis Clin Prac</td>
<td>Clinical course designed to introduce the student to comprehensive diagnostic evaluation. Students will gain familiarity with the DSM nomenclatures via assigned readings, case studies and assignments.</td>
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<tr>
<td>PS4944</td>
<td>Fall 22</td>
<td>3</td>
<td>PSI</td>
<td>Child Psychotherapy</td>
<td>Overview of current theory, research, and techniques of psychotherapy for children and adolescents with specific emphasis on behavior therapy, play therapy, group therapy, family therapy, and milieu therapy.</td>
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<tr>
<td>ED2270</td>
<td>Fall 22</td>
<td>3</td>
<td>ED</td>
<td>MCE AYA Sci PCK Seminar</td>
<td>Teacher candidates will form a foundation for science pedagogical content knowledge. Readings, discussions, observations, and reflections on how students learn science and how best to teach it.</td>
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<tr>
<td>MUA1110</td>
<td>Fall 22</td>
<td>1</td>
<td>MUA</td>
<td>Applied Music</td>
<td>Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music.</td>
</tr>
<tr>
<td>NUR2124</td>
<td>Fall 22</td>
<td>1</td>
<td>NUR</td>
<td>Nur for Unlicensed HC</td>
<td>Introduces non-Registered Nurse healthcare personnel to the role of the professional nurse; introduction to nursing theories with emphasis on interprofessional, intraprofessional, and patient-centered communication skills and critical reasoning in the application of nursing process. Includes laboratory and clinical experiences basic to clinical practice in care of adults. This is an integrated writing course. (3 or didactic; 2 cr clinical; 2 cr total lab)</td>
</tr>
<tr>
<td>STT4170</td>
<td>Fall 22</td>
<td>3</td>
<td>STT</td>
<td>Short Term Actuarial Math II</td>
<td>Continuation of the material introduced in STT4160. This course will continue to teach the students involved in the statistical modeling process and how to apply these steps in an actuarial context. Tools will be introduced for the calibration and evaluation of the models. Topics covered include Credibility, Pricing and Reserving, and Insurance and Reinsurance coverages. Course covers the SOA syllabus for exam STAM when combined with STT 4160.</td>
</tr>
<tr>
<td>MLB4010</td>
<td>Fall 22</td>
<td>0.5</td>
<td>MLB</td>
<td>Topics in Med Lab Sci</td>
<td>Advanced topics in medical laboratory science of current interest. Topics vary.</td>
</tr>
<tr>
<td>EES2150</td>
<td>Fall 22</td>
<td>4</td>
<td>EES</td>
<td>Global Change</td>
<td>Introduction to Earth systems, using modules that are based on environmental events such as volcanic eruptions, hurricanes, and climate change. An online laboratory component allows students to see how scientists use real time data sets to understand Earth systems.</td>
</tr>
<tr>
<td>EC4250</td>
<td>Fall 22</td>
<td>4250</td>
<td>EC</td>
<td>Development of Ec Thought</td>
<td>Historical development of economic thought and philosophies.</td>
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<tr>
<td>PHY990</td>
<td>Fall 22</td>
<td>1</td>
<td>PHY</td>
<td>Spec. Top. Phy Teachers</td>
<td>Physical science topics for teachers. Topics vary by year. Applicable to grades 3-12 teachers or to the MST capstone experience according to section.</td>
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<tr>
<td>BIO1120L</td>
<td>Fall 22</td>
<td>1120L</td>
<td>BIO</td>
<td>Cells &amp; Genes Laboratory</td>
<td>Required laboratory for BIO 1120.</td>
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<tr>
<td>ED3250</td>
<td>Fall 22</td>
<td>3</td>
<td>ED</td>
<td>Urban Youth</td>
<td>Diverse experiences of urban youth and effect of urban experiences on students, teachers, schools, and communities. Methods for providing resource access for all.</td>
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<tr>
<td>ARA5110</td>
<td>Fall 22</td>
<td>4</td>
<td>ARA</td>
<td>Arabic Conversation I</td>
<td>A language practicum for intermediate students of Arabic, designed to expand conversational skills in Modern Standard Arabic.</td>
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<tr>
<td>HED9885</td>
<td>Fall 22</td>
<td>3</td>
<td>HED</td>
<td>Foundation Teach Health</td>
<td>Prepares the pre-service teacher for the classroom by presenting concepts and skills of health education. Explore Coordinated School Health Programs, the national Health Education Standards, the Centers for Disease Control’s Risk Behaviors for Teens, health literacy, and basics of lesson planning and unit planning. Students will examine a plethora of health education resources.</td>
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<tr>
<td>PSY4950</td>
<td>Fall 22</td>
<td>4950</td>
<td>PSY</td>
<td>Sex &amp; Endocrinology Cap</td>
<td>Communication-intensive seminar integrating knowledge on sexuality and endocrinology. Students will apply knowledge of hormonal influences to human sexual behavior through reading and critically analyzing primary scientific research and thoughtful reflection and collegial discussion. Integrated Writing course.</td>
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<tr>
<td>PPH7992</td>
<td>Fall 22</td>
<td>7992</td>
<td>PPH</td>
<td>Public Health ILE Cont Credit</td>
<td>Continuation of integrative learning experience project research carried out with faculty approval and supervision.</td>
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<tr>
<td>PPH7010</td>
<td>Fall 22</td>
<td>7010</td>
<td>PPH</td>
<td>Biostat Health Professionals</td>
<td>Introduction to the basic principles and applications of statistical methods as they are applied to data arising in the health professions.</td>
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<tr>
<td>MUA3310</td>
<td>Fall 22</td>
<td>3110</td>
<td>MUA</td>
<td>Applied Music</td>
<td>Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music.</td>
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<tr>
<td>STT7910</td>
<td>Fall 22</td>
<td>7910</td>
<td>STT</td>
<td>Statistical Consulting</td>
<td>Consultation with graduate students and faculty on statistical problems arising from research projects.</td>
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<td>KNNH540A</td>
<td>Fall 22</td>
<td>1540A</td>
<td>KNNH</td>
<td>Self Defense for Women</td>
<td>Fundamental skills and knowledge of Self Defense for Women. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
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<tr>
<td>GEO4840</td>
<td>Fall 22</td>
<td>4840</td>
<td>GEO</td>
<td>Biogeography</td>
<td>Introduction to the factors affecting the distribution of plants and animals.</td>
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<td>EES4350</td>
<td>4350</td>
<td>Field Mapping</td>
<td>EES Earth &amp; Environmental Sciences</td>
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<td>SLI Sign Language Interpreting</td>
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<td>6230</td>
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<td>Earth &amp; Environmental Sciences</td>
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<td>Mechanical and Materials Engr</td>
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<td>ME4440</td>
<td>4440</td>
<td>Aerospace Propulsion</td>
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<td>4110</td>
<td>Orientation Med Lab Sci</td>
<td>MLB</td>
<td>Medical Laboratory Science</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES4010</td>
<td>4010</td>
<td>Topics Earth &amp; Env Sci</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS6870</td>
<td>6870</td>
<td>Politics of Intelligence</td>
<td>PLS</td>
<td>Political Science</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4750</td>
<td>4750</td>
<td>Weapons Mass Destruct</td>
<td>PLS</td>
<td>Political Science</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDT7560</td>
<td>7560</td>
<td>Diag &amp; Intervn: Prac I</td>
<td>ED</td>
<td>Education</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATH4600</td>
<td>4600</td>
<td>African Oral Traditions</td>
<td>ATH</td>
<td>Anthropology</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BMS7220</td>
<td>7220</td>
<td>Exper Orthopaed Eng</td>
<td>BMS</td>
<td>Biomedical Sciences</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHIL3020</td>
<td>3020</td>
<td>Medieval Philosophy</td>
<td>PHL</td>
<td>Philosophy</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL5450</td>
<td>5450</td>
<td>Daoism</td>
<td>REL</td>
<td>Religion</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY2170</td>
<td>2170</td>
<td>Prob Interview &amp; Case Mgmt</td>
<td>PSY</td>
<td>Psychology</td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Department</td>
<td>Credit Hours</td>
<td>Description</td>
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<tr>
<td>Fall 2022 ART4130</td>
<td>4130 Adv Stud Renaissance Art</td>
<td>Art</td>
<td>3</td>
<td>Intensive studies of the period, major movements, and artists of the time. Department Managed Prerequisite(s): Undergraduate level ART 3130 Minimum Grade of D</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 CLS2040</td>
<td>2040 Great Books - Classics</td>
<td>Classics</td>
<td>3</td>
<td>Introduction to interpreting literature, using selected texts from ancient Greece and Rome, viewed in their socio-historical contexts and read for their value in treating more general themes of the human experience. Integrated Writing course.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 PSY6020</td>
<td>6020 Adv Exp Design: Programs</td>
<td>Psychology</td>
<td>4</td>
<td>Use of canned computer programs such as SPSS, SAS, and BIOMED in the design, analysis, and interpretation of behaviorally oriented research.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 SOC4912</td>
<td>4912 Drug/Alcohol Intervm Workshop</td>
<td>Sociology</td>
<td>2</td>
<td>Participant observation of the intervention and treatment of drug and alcohol problems including therapy and counseling groups, client/therapist contact, and professionals practicing intervention and confrontation techniques.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 THG2160</td>
<td>2160 Singing for Actor IV</td>
<td>Theatre</td>
<td>1</td>
<td>Private singing lessons for acting, theatre studies and dance majors only.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 EE6420L</td>
<td>6420L Microwave EGR I Lab</td>
<td>Electrical Engineering</td>
<td>1</td>
<td>Laboratory supporting EE 6420. Students will experience hands on learning in lab environment.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 ME6010</td>
<td>6010 Comp Meth for Mech Engr</td>
<td>Mechanical and Materials Engineering</td>
<td>3</td>
<td>Combines material learned in statics, dynamics, thermodynamics, fluid mechanics, and heat transfer and applied them to the design of mechanical systems using numerical methods. Department Managed Prerequisite(s): Graduate level ME 5360 Minimum Grade of D and Graduate level ME 5210 Minimum Grade of D</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 THG2160</td>
<td>2160 Singing for Actor IV</td>
<td>Theatre</td>
<td>1</td>
<td>Private singing lessons for acting, theatre studies and dance majors only.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 EE2011L</td>
<td>2011L Analog Circuit Techniques Lab</td>
<td>Electrical Engineering</td>
<td>1</td>
<td>Computer-assisted analysis, RLC circuits, operational amplifiers and circuits, Thevenin and Norton equivalents, maximum power transfer, and AC networks.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 CTE4350</td>
<td>4350 Global Engagement</td>
<td>Career and Technical Education</td>
<td>3</td>
<td>Strengthening partnerships, coordinating efforts and increasing interaction within and outside the CTE community rather than learning and working in seclusion. Enhancing students' abilities to engage in job-related problem solving and decision making in diverse cultures and environments. Integrated writing course.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 BME6710</td>
<td>6710 Optical Imaging</td>
<td>Biomedical Engineering</td>
<td>3</td>
<td>Biophotonics and optical imaging concepts. Basic optics, light propagation in tissue, modern microscopy techniques, diagnostic use of lasers (optical biopsies, optical spectroscopy, optical imaging), thermal aspects of light-tissue interaction, therapeutic use of laser (laser ablation, photodynamic therapy, light-activated therapy), novel technologies and applications including optical molecular imaging. Includes microscopy facility tour and small lab experiments. Department Managed Prerequisite(s): Undergraduate level PHY 2410 Minimum Grade of D</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 LA3990</td>
<td>3990 Studies Select Subjects</td>
<td>Liberal Arts</td>
<td>1</td>
<td>Work experience in a liberal arts discipline. Faculty supervise and evaluate learning that requires planned and approved learning objectives, oral and/or written reports, employer evaluation, and conference with faculty supervisor. May be repeated three times.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 EES6460</td>
<td>6460 Sequence Stratigraphy</td>
<td>Earth &amp; Environmental Sciences</td>
<td>3</td>
<td>Examines the mechanisms that produce sea-level change, how sediments respond to changes in sea-level, and how the architecture of basins may be assessed using the sequence stratigraphic model. Topics include the scales of stratigraphic cycles, seismic applications and outcrop scale high resolution sequence stratigraphy.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 COM3860</td>
<td>3860 Advanced News Writing</td>
<td>Communication</td>
<td>3</td>
<td>Advanced study of writing skills, practices, and procedures used in reporting news for mass media. Reporting in the field required. Integrated Writing course.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 PHY6320</td>
<td>6320 Lasers</td>
<td>Physics</td>
<td>3</td>
<td>Introduction to the physics of lasers including emission and absorption processes in lasing, the factors controlling laser gain, the properties of optical resonators, and a survey of salient features for principal types of lasers.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 DAN2510</td>
<td>2510 Dance History</td>
<td>Dance</td>
<td>3</td>
<td>Survey of Western theatrical dance from its roots in early cultures to the early twentieth century.</td>
<td></td>
</tr>
<tr>
<td>Fall 2022 SOC3730</td>
<td>3730 Soc Courts Law Justice</td>
<td>Sociology</td>
<td>3</td>
<td>Critical examination of the US court system: its structure, key processes, and ability to attain justice. Special attention to race, class, and other influential social forces.</td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Title</td>
<td>Credits</td>
<td>Description</td>
<td>Component(s)</td>
<td>Grade</td>
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<tr>
<td>Fall 2022</td>
<td>KNH7140 Teach Adapted Aquatics</td>
<td>3</td>
<td>Provides an overview of adapted aquatics programming. This course is designed for people seeking information on the empowerment and self-actualization of individuals with disabilities through swimming and related aquatic activities.</td>
<td>Lecture</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ESG8080 Internship Option</td>
<td>5</td>
<td>The internship option is available to second year PhD students wishing to gain experience with an environmental professional in an approved interdisciplinary job setting and providing opportunity to formulate a dissertation research topic.</td>
<td>Seminar</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO4750L Ichthyology Lab</td>
<td>4</td>
<td>Required laboratory for BIO 4750.</td>
<td>Lab</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED2260 Math PCK Seminar</td>
<td>3</td>
<td>Teacher candidates will form a foundation for math pedagogical content knowledge. Through readings, discussions, observations, and reflections, students will understand the specialized knowledge about how students learn math and how best to teach it.</td>
<td>Seminar</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ART4080 Studies in Photography</td>
<td>0</td>
<td>Explore problems and approaches to photography. May include cross-media and interdisciplinary studies.</td>
<td>Lab</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME6120L Finite Element Analysis Lab</td>
<td>0</td>
<td>Required laboratory for ME 6120.</td>
<td>Lab</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEGS510 Computer Organization</td>
<td>3</td>
<td>Basics of Digital Computer Hardware and Design. Topics include switching algebra and switching functions, logic design of combinational and sequential circuits, storage elements, register-level design, and instrumentation.</td>
<td>Lecture</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>OIS2170 Integ Office Software</td>
<td>3</td>
<td>Study of computer skills by utilizing and integrating Microsoft Office software. Students will use Microsoft Office software to complete discipline specific projects.</td>
<td>Lecture</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FMS2300 Interdisc Film Studies</td>
<td>3</td>
<td>Examination of films related to specific disciplines—for instance, films adapted from literature or depicting literary figures, depicting historical periods or figures, illustrating psychological concepts, etc. Can be repeated on different topics.</td>
<td>Lecture</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LE1020 Intro to Criminal Law</td>
<td>3</td>
<td>Rationale and legal foundations of legal procedures.</td>
<td>Lecture</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM6720 Chemical Crystallography</td>
<td>3</td>
<td>Methodology and techniques in the determination of crystal and molecular structures using single-crystal x-ray diffraction.</td>
<td>Lecture</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO6730 Marine Biology</td>
<td>5</td>
<td>Lectures cover oceanic ecosystem dynamics and the biological communities associated with different marine habitats.</td>
<td>Lecture</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL5320 Islam in Modern World</td>
<td>3</td>
<td>Study of how Muslim thinkers and theologians have responded to the challenges of the modern era.</td>
<td>Lecture</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LEP0040 Integrated Skills - Pre-LEAP</td>
<td>0</td>
<td>Reading, vocabulary, listening, cross-cultural discussions for low-beginning ESL students. This course has a fee that is non-refundable once the term begins.</td>
<td>Lecture</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4590 Contemporary Brazil</td>
<td>3</td>
<td>Introduction to Brazilian politics, society and economy. Topics include Brazil's political and economic liberalization, international relations, gender and race relations, and the environment. Integrated Writing course.</td>
<td>Lecture</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATH4900 Ind Research in Anthro</td>
<td>3</td>
<td>Independent reading and research under the supervision of a faculty member in the department of anthropology.</td>
<td>Seminar</td>
<td>IS</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>DEV0990 Basic Algebra Cont</td>
<td>2</td>
<td>Continuation of DEV 0970 with intermediate algebra topics including: solving equations and inequalities, rational exponents, radicals, and quadratic equations. Grade of P in DEV 0970 and MPL of 23 or 24</td>
<td>Lab</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>STT6240 Stat Quality Control</td>
<td>3</td>
<td>Statistical process control for attributes and variables data: probability distributions, sampling plans, control charts, statistical control, process capability, process improvement, tolerance intervals, evolutionary operation, and applications.</td>
<td>Seminar</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BMS8170 Biological Safety</td>
<td>2</td>
<td>Identification, handling, and containment of potentially hazardous biological materials, including microorganisms and recombinant DNA.</td>
<td>Lab</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NUR4441C Pblc Hlth Nur Pblc Syst Clinic</td>
<td>0</td>
<td>Clinical course for NUR 4441</td>
<td>CL</td>
<td>UG</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>WGS3700 Research Methods in LA</td>
<td>3</td>
<td>Introduces social science and humanities majors to research design, and the kinds of data produced, in describing, explaining, and understanding social problems.</td>
<td>Lecture</td>
<td>UG</td>
</tr>
<tr>
<td>CRN</td>
<td>Course Title</td>
<td>Credits</td>
<td>Division</td>
<td>Course Area</td>
<td>Department</td>
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<tr>
<td>4180</td>
<td>ME4180 Additive Manufacturing</td>
<td>3</td>
<td>UG</td>
<td>Mechanical and Materials Engr</td>
<td>ME</td>
</tr>
<tr>
<td>Course Code</td>
<td>Section</td>
<td>Title</td>
<td>Department</td>
<td>Credit Hours</td>
<td>Description</td>
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<tr>
<td>ENG6450</td>
<td>6450</td>
<td>Studies in Lit Theory</td>
<td>ENG English</td>
<td>3</td>
<td>Intensive study of literary theory in order to develop an understanding of critical questions and approaches.</td>
</tr>
<tr>
<td>SPN4310</td>
<td>4310</td>
<td>Sem Spanish Lit</td>
<td>SPN Spanish</td>
<td>3</td>
<td>Intensive study of selected topics in Spanish peninsular literature. Background lectures, oral reports, and discussions. Topics vary.&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level SPN 3210 Minimum Grade of D or Undergraduate level SPN 3250 Minimum Grade of D and (Undergraduate level SPN 3310 Minimum Grade of D or Undergraduate level SPN 3320 Minimum Grade of D).&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level ART 3110 Minimum Grade of D.</td>
</tr>
<tr>
<td>GEO2100</td>
<td>2100</td>
<td>Physical Geography</td>
<td>GEO Geography</td>
<td>3</td>
<td>Human natural environment at regional and global scales including the intersections of climate, soils, vegetation, landscapes, and people.</td>
</tr>
<tr>
<td>ART4110</td>
<td>4110</td>
<td>Adv St Ancient/Classical</td>
<td>ART Art</td>
<td>3</td>
<td>Intensive studies of the period, major movements, and artists of the time.&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level ART 3110 Minimum Grade of D.</td>
</tr>
<tr>
<td>ART3690</td>
<td>3690</td>
<td>Beg Printmg: Screenprint</td>
<td>ART Art</td>
<td>3</td>
<td>Introduction to silkscreening techniques such as stencil cut, photo stencil, and crayon and touche resists. Exploration of aesthetic possibilities of the media. This course has a fee that is non-refundable once the term begins.&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level ART 2280 Minimum Grade of D and Undergraduate level ART 2090 Minimum Grade of D.</td>
</tr>
<tr>
<td>ME7130</td>
<td>7130</td>
<td>Mechanics Electronic Packaging</td>
<td>ME Mechanical and Materials Engr</td>
<td>3</td>
<td>Stress and strain analysis of microelectronic packages and assemblies using analytical, experimental, and numerical methods.&lt;br&gt;Department Managed Prerequisite(s): Graduate level ME 5120 Minimum Grade of C and Graduate level ME 6140 Minimum Grade of C or Graduate level ME 6770 Minimum Grade of C.</td>
</tr>
<tr>
<td>CHM1050</td>
<td>1050</td>
<td>Chemistry: Living Things</td>
<td>CHM Chemistry</td>
<td>4</td>
<td>Principles of covalent bonding, structures, and reactions of molecules important to living things, with attention to related technological, regulatory, and social issues.</td>
</tr>
<tr>
<td>GER3990</td>
<td>3990</td>
<td>Studies in Selected Subj</td>
<td>GER German</td>
<td>1</td>
<td>Individual research project approved and supervised by a full-time faculty member. Taught in German.</td>
</tr>
<tr>
<td>EE7080</td>
<td>7080</td>
<td>Advanced MEMS</td>
<td>EE Electrical Engineering</td>
<td>3</td>
<td>Classical and advanced micro-sensing and actuation methods. Analytical and finite element methods utilized in investigating MEMS with computed results compared to published experimental data findings. Topics covered include bio-MEMS and microfluidics.&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level EE 4000 Minimum Grade of D or Graduate level EE 6000 Minimum Grade of D.</td>
</tr>
<tr>
<td>SW7600</td>
<td>7600</td>
<td>Social Work Field Education I</td>
<td>SW Social Work</td>
<td>2</td>
<td>Completion of 300 hours of field education. Provides opportunity for students to engage in selected and organized activities with clients that apply the social work skills, knowledge, and values learned in the classroom. Meeting with a range of clients, encountering diversity, and growing self-awareness and abilities to help clients of various backgrounds.</td>
</tr>
<tr>
<td>EE4540L</td>
<td>4540L</td>
<td>VLSI Design Lab</td>
<td>EE Electrical Engineering</td>
<td>1</td>
<td>Work-station-based experience designingasic devices for evaluation and testing.&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level EE 2000 Minimum Grade of D and Undergraduate level EE 2000L Minimum Grade of D or Undergraduate Level CEG 3320 Minimum Grade of D and Undergraduate Level CEG 3320L Minimum Grade of D.</td>
</tr>
<tr>
<td>FR5320</td>
<td>5320</td>
<td>Survey of Francophone Li</td>
<td>FR French</td>
<td>3</td>
<td>Introduction to the culture and literature from one or more regions of the French speaking world. Topics vary. Taught in French.&lt;br&gt;Department Managed Prerequisite(s): (Graduate level FR 5110 Minimum Grade of C or Graduate level FR 5120 Minimum Grade of C or Graduate level FR 5210 Minimum Grade of C or Graduate level FR 5220 Minimum Grade of C).&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level MTH 1280 Minimum Grade of D or WSU Math Placement 40.</td>
</tr>
<tr>
<td>EED3210</td>
<td>3210</td>
<td>P-5 Methd Field Exp</td>
<td>EED Elementary Education P-5</td>
<td>1</td>
<td>Candidates, mentored by an elementary educator, assist in the planning, organizing, delivering, and assessing of instruction in a P-5 grade setting applying pedagogical content knowledge from elementary education methods courses.</td>
</tr>
<tr>
<td>CEG2170</td>
<td>2170</td>
<td>Intro to C Pro for S&amp;E</td>
<td>CEG Computer Engineering</td>
<td>4</td>
<td>Basic engineering problem solving using the C programming language. Topics include loops, selection, input/output, files, functions, arrays, complex variables, pointers, structures, and dynamic memory. Students will learn how to approach solving problems in engineering and science; how to develop algorithms, using advanced techniques such as recursion, searching, sorting and linked lists, to solve those problems; and how to implement those algorithms in the C language.&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level MTH 1280 Minimum Grade of D or WSU Math Placement 40.</td>
</tr>
<tr>
<td>PHIL3030</td>
<td>3030</td>
<td>Modern Philosophy</td>
<td>PHIL Philosophy</td>
<td>3</td>
<td>History of philosophy from Descartes to Kant. Topics vary. Integrated Writing course.</td>
</tr>
<tr>
<td>MTH2570</td>
<td>2570</td>
<td>Discrete Math Computing</td>
<td>MTH Mathematics</td>
<td>4</td>
<td>Discrete mathematics useful in computing. Emphasis on mathematical induction, recurrence relations, asymptotic behavior of functions, and algorithm analysis.</td>
</tr>
<tr>
<td>MUA4120</td>
<td>4120</td>
<td>Applied Music</td>
<td>MUA Music: Applied Music</td>
<td>1</td>
<td>Open only to music majors or minors. All students must have auditioned for and have received departmental approval before registering for applied music.</td>
</tr>
<tr>
<td>MUS4490</td>
<td>4490</td>
<td>Music Since 1900</td>
<td>MUS Music</td>
<td>3</td>
<td>Study of music and critical analysis of representative works from major composers of music written after 1900.</td>
</tr>
<tr>
<td>BME1110</td>
<td>1110</td>
<td>Fundamentals of BIE</td>
<td>BME Biomedical Engineering</td>
<td>3</td>
<td>Introduction to the disciplines of Biomedical, Industrial &amp; Systems and Human Factors Engineering. Provides an overview of how engineers design, develop, implement, and improve integrated systems that include people, materials, information, equipment, and energy. Consists of lecture classes and computer-based instrumentation lab sessions; includes freshman design experience with emphasis on teamwork and problem solving. Department faculty provide interesting insights in their areas of expertise.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Type</td>
<td>Description</td>
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<tr>
<td>PLS6720</td>
<td>3</td>
<td>Terrorism and Counterterrorism</td>
<td>Lecture</td>
<td>Surveys the phenomenon of terrorism: who employs it, how and why it occurs in international politics, and examines how states respond to terrorism.</td>
<td></td>
</tr>
<tr>
<td>MIS3820</td>
<td>3</td>
<td>Data Mining for Business</td>
<td>Lecture/Lab</td>
<td>This course will examine data mining tools and techniques that have been proven to be of value in recognizing patterns and making predictions from an applied perspective.</td>
<td></td>
</tr>
<tr>
<td>RHB3640</td>
<td>3</td>
<td>Community Accessibility</td>
<td>Lecture</td>
<td>Physical accessibility requirements and issues in the community based on title III of the Americans with Disabilities Act.</td>
<td></td>
</tr>
<tr>
<td>CS4810</td>
<td>4</td>
<td>Bioinformatic Algorithms</td>
<td>Lecture</td>
<td>Theory-oriented approach to the application of contemporary algorithms to bioinformatics. Graph theory, complexity theory, dynamic programming and optimization techniques applied to solving specific computational problems in molecular genetics.</td>
<td></td>
</tr>
<tr>
<td>URS6390</td>
<td>3</td>
<td>Issues-Nonprofit Admin</td>
<td>Lecture</td>
<td>Exploration of issues and topics related to the administration of nonprofit organizations.</td>
<td></td>
</tr>
<tr>
<td>MIL3010</td>
<td>3</td>
<td>Adaptive Team Leadership</td>
<td>Lecture</td>
<td>Application of fundamentals of Army leadership, officership, Army values and ethics, personal development, and small unit tactics at the team and squad level. Students must fully participate in all ROTC activities.</td>
<td></td>
</tr>
<tr>
<td>PHY7550</td>
<td>3</td>
<td>Terahertz Physics</td>
<td>Lecture</td>
<td>The interaction of high frequency electromagnetic radiation with materials with emphasis on the Terahertz region of the spectrum. Ability to apply these interactions to the function and design of high frequency electronic devices and to molecular systems.</td>
<td></td>
</tr>
<tr>
<td>SOC4000</td>
<td>4</td>
<td>Sociological Imagination</td>
<td>Lecture</td>
<td>Culminating experience integrating theory, methods, and other core concepts from the discipline. Topics vary. Integrated Writing course.</td>
<td></td>
</tr>
<tr>
<td>FR6120</td>
<td>1</td>
<td>FR Instruc Practicum II</td>
<td>Seminar</td>
<td>Peer teachers observe elementary and/or intermediate level classes, continuation of practicum from FR 6110. Department Managed Prerequisite(s): Graduate level FR 6110 Minimum Grade of D.</td>
<td></td>
</tr>
<tr>
<td>PLS4650</td>
<td>4</td>
<td>Politics of Nationalism</td>
<td>Lecture</td>
<td>Examines theories and various cases of nationalist movements/conflicts from different parts of the world in order to appreciate the relevance of nationalism to contemporary politics and international relations. Integrated Writing course.</td>
<td></td>
</tr>
<tr>
<td>BIO2310</td>
<td>3</td>
<td>Evolution and Ecology</td>
<td>Lecture</td>
<td>Overview of the concepts of evolution and ecology. Examines the major reasons that populations of organisms change genetically over time, the basis of appreciate and influences on organisms, and what determines the direction of those changes including interactions with the physical environment and other organisms. Community and ecosystem processes will be discussed. Labs will explore approaches including modeling and analysis of data. Integrated Writing course.</td>
<td></td>
</tr>
<tr>
<td>ACC2070</td>
<td>2</td>
<td>Careers in Accounting</td>
<td>Lecture</td>
<td>Introduction to career opportunities in accounting.</td>
<td></td>
</tr>
<tr>
<td>FR6630</td>
<td>3</td>
<td>20th Cent Lit: Drama</td>
<td>Lecture</td>
<td>Study of modern French theatre including: Cocteau, Giraudoux, Anouilh, Beckett, Ionesco, Césaire, Duras, Genet and Sartre. Taught in French. Department Managed Prerequisite(s): Graduate level FR 6110 Minimum Grade of D.</td>
<td></td>
</tr>
<tr>
<td>COM2020</td>
<td>2</td>
<td>Interpersonal Com</td>
<td>Lecture/Lab</td>
<td>Theoretical and behavioral approach to the role of communication in relationships across various contexts. Emphasis on perception and self-concept, relational development, verbal and nonverbal messages, influence, gender and diversity.</td>
<td></td>
</tr>
<tr>
<td>ENG3560</td>
<td>3</td>
<td>Writing Workshop</td>
<td>Lecture/Lab</td>
<td>Advanced strategies for teaching writing to adolescent and middle school students with an emphasis on genres and workshop pedagogy.</td>
<td></td>
</tr>
<tr>
<td>ATR7800</td>
<td>8</td>
<td>Administrative Concepts</td>
<td>Lecture</td>
<td>Concepts related to health care administration including: regulations, policies and procedures, legal considerations, facility design and function, budgeting, drug testing and health care services, personnel management, and career preparation.</td>
<td></td>
</tr>
<tr>
<td>ED3060</td>
<td>3</td>
<td>MCE Gen Soc Studies Inst</td>
<td>Lecture</td>
<td>Methods for teaching 4th, 5th, and 6th grades social studies pertinent to the Ohio Learning Standards with emphasis on content, developmentally appropriate pedagogy, curricula, and materials.</td>
<td></td>
</tr>
<tr>
<td>PTX7020</td>
<td>7</td>
<td>Laboratory Management</td>
<td>Lecture</td>
<td>The topics are designed to give students laboratory management experience along with a short weekly lecture that will provide background information on the theory behind the project.</td>
<td></td>
</tr>
<tr>
<td>MUE4950</td>
<td>4</td>
<td>Chamber Singers</td>
<td>Lecture/Lab</td>
<td>Development of advanced choral and vocal skills. Emphasis on advanced vocal chamber literature from 15th through 20th centuries. Audition required.</td>
<td></td>
</tr>
<tr>
<td>PSY2020</td>
<td>2</td>
<td>Careers in Psychology</td>
<td>Lecture</td>
<td>The purpose of this course is to help students explore the major of Psychology and learn more about the different career paths in this field. Students will also be introduced to some of the various opportunities that are available to PSY majors.</td>
<td></td>
</tr>
<tr>
<td>MTH8300</td>
<td>3</td>
<td>Topics in Analysis</td>
<td>Independent Study</td>
<td>Selected advanced topic or topics in analysis.</td>
<td></td>
</tr>
<tr>
<td>ART5150</td>
<td>3</td>
<td>Nineteenth Century Art</td>
<td>Seminar</td>
<td>General surveys and intensive studies of the period, major movements, and artists of the time. Titles vary.</td>
<td></td>
</tr>
</tbody>
</table>
This course will cover topics in "Trust for Integrated Circuit Design." We will explore the problem of Trust at each level of the Integrated circuit design process, from high level simulation all the way to layout, fabrication, and packaging.

This course is designed for students who may be interested in service industries and will address the distinct needs and problems of service firms and help students gain an understanding of service marketing issues.

Both human and environmental sustainability will be emphasized by exploring current topics.

This course has a fee that is non-refundable once the term begins.

Department Managed Prerequisite(s): Undergraduate level ART 3480 Minimum Grade of D

Coordinated by a university faculty member who observes the candidate in a school setting.

This course will cover topics in "Trust for Integrated Circuit Design." We will explore the problem of Trust at each level of the Integrated circuit design process, from high level simulation all the way to layout, fabrication, and packaging.

Department Managed Prerequisite(s): Undergraduate level ART 3480 Minimum Grade of D

Teaching experience integrated with academic instruction; application of concepts to situations within the candidate's teaching field. Coordinated by a university faculty member who observes the candidate in a school setting.

Both human and environmental sustainability will be emphasized by exploring current topics.

Representative works of established and emerging African writers.

Three activity class models best teaching practices in net/wall games such as badminton, tennis, and volleyball. Students are required to demonstrate skill competency.

Teaching experience integrated with academic instruction; application of concepts to situations within the candidate's teaching field. Coordinated by a university faculty member who observes the candidate in a school setting.

An in-depth investigation of ethical problems, theories, and methods. Variable title course.

Study special purpose computing systems. Topics include system architecture, embedded processors, field programmable gate arrays, hardware software co-design, real-time scheduling, and real-time operating systems.

Individualized, supervised learning experience including on-site seminars under the direction of the instructor and on-site staff. Department Managed Prerequisite(s): Undergraduate level FAS 2870 Minimum Grade of D

Senior-level internship in a local nonprofit agency.
<table>
<thead>
<tr>
<th>Course Code</th>
<th>CRN</th>
<th>Title</th>
<th>Type</th>
<th>Credits</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>EDL8730</td>
<td>8730</td>
<td>Bidg Budget, Mgmt, SS</td>
<td>EDL</td>
<td>3</td>
<td>Leading the pupil personnel service aspects of school operation, including ethical considerations, special education requirements, student attendance and accounting, guidance, counseling, health and wellness, discipline, and extracurricular/co-curricular activities.</td>
<td>GR LL</td>
</tr>
<tr>
<td>PSY2810</td>
<td>2810</td>
<td>Psychology Incarceration</td>
<td>PSY</td>
<td>3</td>
<td>Instruction examines the socio-psychological, developmental, mental health factors surrounding the experience of incarcerated persons.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>CS8860</td>
<td>8860</td>
<td>Continuing Registration</td>
<td>CS</td>
<td>1</td>
<td>Research on the Ph.D. dissertation topic taken in residence.</td>
<td>GR IS</td>
</tr>
<tr>
<td>PLS6510</td>
<td>6510</td>
<td>Contemp African Politics</td>
<td>PLS</td>
<td>3</td>
<td>Political processes and governmental institutions of sub-Saharan Africa; special attention to dynamics of political development and socioeconomic change. Comparative analysis of selected African political systems.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>BIO6110</td>
<td>6110</td>
<td>The Aquatic Environment</td>
<td>BIO</td>
<td>5</td>
<td>Field and laboratory course concerned with the physical, chemical, and biological factors that determine biological productivity in natural waters. 3 hours lecture, 6 hours lab.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>EES6990</td>
<td>6990</td>
<td>Spec Pros Earth Env Sci</td>
<td>EES</td>
<td>0.5</td>
<td>Research and problems designed for specific needs and talents of students at the graduate level. May be taken for a letter grade or pass/unsatisfactory.</td>
<td>GR IS</td>
</tr>
<tr>
<td>CS3200</td>
<td>3200</td>
<td>Theory of Computing</td>
<td>CS</td>
<td>3</td>
<td>Introduction to the theory of formal languages and automata with an emphasis on the classes of languages commonly encountered by computer scientists. Computability examines the solution of decision problems; the Church-Turing thesis; the undecidability of the Halting Problem; and problem reduction and undecidability.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>PSY6960</td>
<td>6960</td>
<td>Behav Embry &amp; Teral Cap</td>
<td>PSY</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge on behavioral embryology and teratology.</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>IT2360</td>
<td>2360</td>
<td>Found of Package Design</td>
<td>IT</td>
<td>3</td>
<td>Fundamental concepts and applications of package design. History of field and useful package patterns. Hands-on experience in formulating package design.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>SAA6620</td>
<td>6620</td>
<td>Spec Topics Stu Affairs</td>
<td>SAA</td>
<td>1</td>
<td>Topics related to the various functional areas and current issues in student affairs in higher education will be offered. Past topics have included Working with Students with Disabilities, Supervision Skills, Job Search in High Education, and Working with the Media.</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>KNH1600B</td>
<td>1600B</td>
<td>Swimming: Beginning</td>
<td>KNH</td>
<td>1</td>
<td>Fundamental skills and knowledge of Swimming: Beginning. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td>UG LB Lab</td>
</tr>
<tr>
<td>ED6900</td>
<td>6900</td>
<td>Workshops in Education</td>
<td>ED</td>
<td>0.5</td>
<td>Workshops in selected areas of education taught through the Division of Professional Development (DPD)</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>SLI4580</td>
<td>4580</td>
<td>RID Certification Prep</td>
<td>SLI</td>
<td>3</td>
<td>Assists students in preparation for the Registry of Interpreters for the Deaf (RID) national certification test. Ethical discussions, sign and voice performances and analyses, and review of written materials will be included.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>DAN3020</td>
<td>3020</td>
<td>Ballet III</td>
<td>DAN</td>
<td>3</td>
<td>Vocabulary, techniques, and theory of advanced ballet. Emphasis on body alignment and flexibility.</td>
<td>UG ST Studio</td>
</tr>
<tr>
<td>PSY6370</td>
<td>6370</td>
<td>Psychology of Aging Cap</td>
<td>PSY</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge on theories, methods, and research related to human aging. Focus on both current research and applications from psychology.</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>CNL7280</td>
<td>7280</td>
<td>Pro Orienti Eth &amp; Leg Isi</td>
<td>CNL</td>
<td>3</td>
<td>Surveys legal, professional, and ethical issues in counseling. Topics include: historical review, counselor roles and functions, self-care strategies, supervision models, advocacy, professional organizations, and professional credentialing.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>URS6400</td>
<td>6400</td>
<td>Comm./Region Planning</td>
<td>URS</td>
<td>3</td>
<td>Explores links between urban planning and urban administration, and planning as a profession and a process.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>PSY8590</td>
<td>8590</td>
<td>Topics in Indus/Organiz</td>
<td>PSY</td>
<td>2</td>
<td>Seminars with in-depth coverage of special topics in industrial or organizational psychology. Topics vary. Permission of Instructor. May be taken for a letter grade or pass/unsatisfactory.</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>PHY5710</td>
<td>5710</td>
<td>Mechanics</td>
<td>PHY</td>
<td>3</td>
<td>Intermediate problems in statics, kinematics, and dynamics; the study of equilibrium of forces, rectilinear motion, curvilinear motion, central forces, constrained motion, energy and moments of inertia; and the Lagrange method.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>DEV0410</td>
<td>0410</td>
<td>Introductory Algebra</td>
<td>DEV</td>
<td>4</td>
<td>Review of arithmetic and basic algebra concepts and skills including operations involving signed numbers and fractions, polynomials, exponents, linear equations, and applications. This course has a fee that is non-refundable once the term begins.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>MIL2010</td>
<td>2010</td>
<td>Foundations of Ldrship</td>
<td>MIL</td>
<td>3</td>
<td>Analysis of the light infantry squad's weapons and employment and the leader's role in directing and controlling small units in the execution of offensive and defensive tactical missions. Contracted students are required to participate in two-hour lab, physical fitness program and weekend training exercises.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>MUE2460</td>
<td>2460</td>
<td>University Saxophone Quartet</td>
<td>MUE</td>
<td>1</td>
<td>Performs saxophone quartet repertoire ranging from classic to jazz to contemporary. Audition required.</td>
<td>UG LL Lecture</td>
</tr>
<tr>
<td>FR4910</td>
<td>4910</td>
<td>History of French Film</td>
<td>FR</td>
<td>3</td>
<td>Survey of the main movements of French cinema from 1895 to the present, featuring works by directors such as Vigo, Renoir, Carné, Cocteau, Tati, Bresson, Truffaut, Godard, Resnais, Varda, etc. Taught in French. Integrated Writing course. Department Managed Prerequisite(s): (Undergraduate level FR 3210 Minimum Grade of D or Undergraduate level FR 3220 Minimum Grade of D)</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>M&amp;I8440</td>
<td>8440</td>
<td>Sem Topics - Computer &amp; Math</td>
<td>M&amp;I</td>
<td>Microbiology &amp; Immunology</td>
<td>2</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG4790</td>
<td>4790</td>
<td>TEF Practice &amp; Material</td>
<td>ENG</td>
<td>English</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES6330</td>
<td>6330</td>
<td>Global Biogeochem Cycles</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN1020</td>
<td>1020</td>
<td>Beginning Spanish II</td>
<td>SPN</td>
<td>Spanish</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ME4330</td>
<td>4330</td>
<td>Compressible Flow</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>RHB6650</td>
<td>6650</td>
<td>Rehab Counseling Pract</td>
<td>RHB</td>
<td>Rehabilitation</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL7300</td>
<td>7300</td>
<td>Research Design Methods</td>
<td>EDL</td>
<td>Educational Leadership</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4060</td>
<td>4060</td>
<td>Globalization</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1200B</td>
<td>1200B</td>
<td>Fencing: Beginning</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDS4095</td>
<td>4095</td>
<td>Pract 1: Dyslexia Meth&amp;Assess</td>
<td>EDS</td>
<td>Education - Special Education</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>NEU4500</td>
<td>4500</td>
<td>Neuron-Glia Bio&amp;Disease</td>
<td>NEU</td>
<td>Neuroscience</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES6220</td>
<td>6220</td>
<td>Intro to Geophysics</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>4</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS6660</td>
<td>6660</td>
<td>Politics in South Asia</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES6530</td>
<td>6530</td>
<td>Diagenesis of Sed Rocks</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>4</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1960</td>
<td>1960</td>
<td>Swimming: Beginning</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG7550</td>
<td>7550</td>
<td>Computer Vision&amp;Pattern Recogn</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATH3210</td>
<td>3210</td>
<td>Medical Anthropology</td>
<td>ATH</td>
<td>Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATH3200</td>
<td>3200</td>
<td>Special Topics: Cultural Anthropology</td>
<td>ATH</td>
<td>Anthropology</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS6880</td>
<td>6880</td>
<td>Conflict Resolution</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1300</td>
<td>1300</td>
<td>Hiking</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHIL3510</td>
<td>3510</td>
<td>Scientific Revolutions</td>
<td>PHIL</td>
<td>Philosophy</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG7080L</td>
<td>7080L</td>
<td>CMOS Mix Sig IC Des Lab</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>1</td>
</tr>
<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Description</td>
<td></td>
<td></td>
<td></td>
</tr>
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<td></td>
<td></td>
</tr>
<tr>
<td>BIO3110</td>
<td>2</td>
<td>Clinical Micro Biol Lab</td>
<td>The study of biological processes of microorganisms, with emphasis on microorganisms that cause human disease (pathogens). Integrated Writing course.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EE6120</td>
<td>3</td>
<td>Industrial Controls</td>
<td>For each student to gain a working knowledge of industrial controls and automation. Focus is on developing an understanding of wiring diagram creation, hardware selection, and programmable logic controller design and operation.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PSY8620</td>
<td>4</td>
<td>Organizational Behavior</td>
<td>Review of behavior in organizations within a framework of psychological theory and research. Topics include socialization, careers, organizational design, and leadership.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ATR7350</td>
<td>2</td>
<td>Clinical Practice II</td>
<td>Clinical experience with a preceptor to practice, apply and master a variety of entry-level skills learned in the previous semester. Evaluation will occur in both the clinical and classroom settings.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FR5820</td>
<td>1</td>
<td>Applied Elementary Lang</td>
<td>Graduate students assist FR 1010 or 1020 course instructors in conducting classes. Taught in French.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENG6740</td>
<td>3</td>
<td>TESOL Practice/Material</td>
<td>Develops skills in designing curricula through creating and adapting appropriate materials and activities, as well as evaluating and effectively using existing practices and materials available to the teacher of ESL/EFL.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EDL8300</td>
<td>3</td>
<td>Research on Teaching</td>
<td>Research method design and analysis for the classroom; culminates in the analysis of collected research data.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>EGR3350</td>
<td>3</td>
<td>Tech Comm for EGR &amp; CS</td>
<td>A modular approach to oral and written communication of complex technical information to specific audiences. Includes describing technical mechanisms and processes; designing and using tables, graphs, charts, and figures; producing technical proposals, progress reports, recommendation reports, and formal reports; and doing technical briefings.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>URS6260</td>
<td>3</td>
<td>PA in a Global Society</td>
<td>Places American public administration traditions and practices into comparative perspective. Explores the similarities and differences between administrative work in the U.S. and other countries around the world. Examines the extent to which globalization has affected the practice of public administration as well as global trends that have become apparent in administrative reform today.</td>
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<tr>
<td>MUS3430</td>
<td>3</td>
<td>Orchestration/Vocal Arr</td>
<td>A study of tone quality, ranges, and transpositions of band and orchestral instruments; voice qualities and ranges of choral ensembles; orchestration and arranging techniques; and written assignments in each area.</td>
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<tr>
<td>IDL7200</td>
<td>3</td>
<td>Professional Practice</td>
<td>Examines the ethical, legal, and political implications of instructional design. Consideration of issues of intellectual property rights, ethics, managing online reputation, and professional responsibilities are discussed.</td>
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<tr>
<td>EES4990</td>
<td>3</td>
<td>Problems Earth &amp; Env Sci</td>
<td>Research and problems designed for undergraduate students at the senior level. May be taken for a letter grade or pass/unsatisfactory.</td>
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<tr>
<td>PSI6200</td>
<td>3</td>
<td>Diversity Integration I</td>
<td>This course will focus on developing and practicing the ability to have difficult dialogues and engaging in intersectional analyses necessary to build a posture of cultural humility as a foundational skill toward clinical competence with diverse groups. This course will be the first in a sequence of three diversity intensive courses. These dialogues will ask students to engage in self-reflection and intersectional analyses of multiple identities as mechanisms that inform human suffering and power, privilege and difference and similarities and differences that impact analytical and relationship skills. We will also be looking at social constructions that inform the social political landscape. The ability to dialogue and engage in an authentic intersectional analyses is considered an essential skill in preparation for clinic work with diverse marginalized and privileged populations. We consider the ability to maintain a critical dialogue to be a foundational skill and an intervention in and of itself.</td>
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<tr>
<td>CEG6426</td>
<td>3</td>
<td>Legal Aspects Cyber Sec</td>
<td>Examines some of the most pressing threats to data and systems, the major legal and practical responses, and the policy issues they raise, with a particular focus on military divisions, corporations, not-for-profit organizations, and civilian government agencies.</td>
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<tr>
<td>REL3480</td>
<td>3</td>
<td>Hindu Mythology</td>
<td>Examines relationship of Hindu sacred narratives and Hindu beliefs and practices. Addresses myths, its significance for the study of religion, and the intellectual issues at stake in reading mythology across cultures.</td>
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<tr>
<td>TH3280</td>
<td>3</td>
<td>Decorative Style: Ages</td>
<td>Development of dominant characteristics of the history of architecture, furniture, and ornamental design and how they relate to abstract elements of taste, design, composition, and color.</td>
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<tr>
<td>EDT8140</td>
<td>3</td>
<td>LMS &amp; Evaluation Technology</td>
<td>Examines integrating curriculum with educational technologies such as learning management systems and the knowledge and skills necessary to evaluate the quality of online courses.</td>
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<tr>
<td>ED4400</td>
<td>2</td>
<td>Teacher Music Ed</td>
<td>Teacher candidates will be provided the necessary knowledge and skills regarding issues affecting education to assist them in making a successful transition from being a teacher-candidate to becoming a professional educator.</td>
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<tr>
<td>PHL5140</td>
<td>3</td>
<td>Theories of Knowledge</td>
<td>Examination of philosophical theories of knowledge from ancient times to the present. Readings vary but may include: Plato, Descartes, Hume, Kant, Russell, Moore, Gettier, Nozick, Bonjour, Quine, Kripke, Putnam and Williamson.</td>
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<tr>
<td>Course Code</td>
<td>Semester</td>
<td>Title</td>
<td>Department</td>
<td>Credits</td>
<td>Description</td>
<td>Type</td>
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<td>ART4670</td>
<td>Fall 22</td>
<td>Adv Printmg: Intaglio</td>
<td>ART</td>
<td>4670</td>
<td>Development of personalized concepts and individual aesthetic expression in printmaking. This course has a fee that is non-refundable once the term begins. Department Managed Prerequisite(s): Undergraduate level ART 3670 Minimum Grade of D or above.</td>
<td>UG</td>
</tr>
<tr>
<td>DAN4910</td>
<td>Fall 22</td>
<td>Senior Dance Project</td>
<td>DAN</td>
<td>4910</td>
<td>Advanced work in creative dance projects. Designed to showcase skills of graduating seniors with guidance and input of faculty. Involves choreography/performance of dance work in Festival Playhouse and writing a thesis. Department Managed Prerequisite(s): Undergraduate level DAN 3090 Minimum Grade of D or above.</td>
<td>UG</td>
</tr>
<tr>
<td>BIO2100</td>
<td>Fall 22</td>
<td>Orientation Sem: Bio Sci</td>
<td>BIO</td>
<td>2100</td>
<td>Overview of programs, career options, department activities, and research opportunities in the biological sciences. Department Managed Prerequisite(s): Undergraduate level BIO 1000 Minimum Grade of D or above.</td>
<td>UG</td>
</tr>
<tr>
<td>CHM1000</td>
<td>Fall 22</td>
<td>Sustainability thru Chemistry</td>
<td>CHM</td>
<td>1000</td>
<td>A broad perspective of the vital role of chemistry in achieving sustainability in different aspects, including life, energy, and environment. Resources, study skills and various opportunities are also examined. Later in the course, the focus transitions to students making use of information learned to plan their own education, graduation, and career goals.</td>
<td>UG</td>
</tr>
<tr>
<td>SAA7670</td>
<td>Fall 22</td>
<td>Internship II in SAHE</td>
<td>SAA</td>
<td>7670</td>
<td>This field-based experience provides students with advanced practice and supervision in areas of interest in SAHE. Department Managed Prerequisite(s): Undergraduate level SAA 5090 Minimum Grade of D or above.</td>
<td>GR</td>
</tr>
<tr>
<td>GEO3500</td>
<td>Fall 22</td>
<td>Environmental Geography</td>
<td>GEO</td>
<td>3500</td>
<td>Economic and spatial examination of resources with an emphasis upon and analysis of supply, consumption and sustainability. Conservation presented as a principal strategy to manage resources for future generations. Integrated Writing course.</td>
<td>UG</td>
</tr>
<tr>
<td>EDS6990</td>
<td>Fall 22</td>
<td>Prof Sem for Intervention Spec</td>
<td>EDS</td>
<td>6990</td>
<td>Exploration of the Special Education Professional Practice Standards and ethical responsibilities of intervention specialists in relation to individuals with exceptionalities and their families as well as employment within the profession.</td>
<td>GR</td>
</tr>
<tr>
<td>OIS1160</td>
<td>Fall 22</td>
<td>Intro to App Business</td>
<td>OIS</td>
<td>1160</td>
<td>Analytical, ethical awareness and reasoning abilities, multicultural understanding, use of technology, and communications and learning building in a business environment.</td>
<td>UG</td>
</tr>
<tr>
<td>ANT4880</td>
<td>Fall 22</td>
<td>Ind Reading Anatomy</td>
<td>ANT</td>
<td>4880</td>
<td>Various anatomy topics will be discussed with an assigned faculty advisor.</td>
<td>UG</td>
</tr>
<tr>
<td>SAA6640</td>
<td>Fall 22</td>
<td>Career Assessment</td>
<td>SAA</td>
<td>6640</td>
<td>Analyze formal and informal assessment approaches to the career development process. Explore and evaluate job search strategies and resources for clients. A variety of career development theories are discussed and applied to client cases.</td>
<td>GR</td>
</tr>
<tr>
<td>PSY6400</td>
<td>Fall 22</td>
<td>Ind/Org Psych Consulting</td>
<td>PSY</td>
<td>6400</td>
<td>Communication-intensive seminar integrating knowledge on industrial/organizational psychology. Topics will vary.</td>
<td>GR</td>
</tr>
<tr>
<td>PHY4940</td>
<td>Fall 22</td>
<td>Senior Project</td>
<td>PHY</td>
<td>4940</td>
<td>Selected problems in experimental and theoretical physics with critical analysis of results. Integrated Writing course.</td>
<td>UG</td>
</tr>
<tr>
<td>BMS3751</td>
<td>Fall 22</td>
<td>Special Topics</td>
<td>BMS</td>
<td>3751</td>
<td>Advanced applications from a variety of bioengineering subfields are identified and defined with respect to their importance in the practice of human factors engineering.</td>
<td>GR</td>
</tr>
<tr>
<td>UVC1095</td>
<td>Fall 22</td>
<td>Prior Lmg Assessment</td>
<td>UVC</td>
<td>1095</td>
<td>Helps students identify areas of learning to have evaluated for college-level equivalency. Guides students through the preparation and compilation of all components required for the evaluation of a portfolio of prior learning through LearningCounts.org.</td>
<td>UG</td>
</tr>
<tr>
<td>HED4570</td>
<td>Fall 22</td>
<td>Hlth Fit Chronic Disease</td>
<td>HED</td>
<td>4570</td>
<td>Health and fitness management for all populations, including apparently healthy, increased risk, and those diagnosed with chronic diseases and disorders. Integrated Writing course.</td>
<td>UG</td>
</tr>
<tr>
<td>ENG2310</td>
<td>Fall 22</td>
<td>Comp Lit: Non Western</td>
<td>ENG</td>
<td>2310</td>
<td>Introduction to literature from the global South, including Asia, Africa, Latin America, and the Middle East, and development of critical vocabulary for the appreciation of issues relevant to the literature. Credit will not be given for ENG 2310 to students who have already successfully completed CST 2310. Integrated Writing course.</td>
<td>UG</td>
</tr>
<tr>
<td>APS3040</td>
<td>Fall 22</td>
<td>APS Management</td>
<td>APS</td>
<td>3040</td>
<td>A course to provide opportunities for students to gain knowledge, practice, and study in technical management. Focus on management fundamentals such as organizational structure, planning, control, change, etc. as they apply to business and organizational settings. Integrated Writing course.</td>
<td>UG</td>
</tr>
<tr>
<td>ED6110</td>
<td>Fall 22</td>
<td>Early Lit Assess/Inst I</td>
<td>ED</td>
<td>6110</td>
<td>Teachers learn and apply Marie Clay's theory of literacy processing while tutoring students who struggle with literacy in early childhood settings. Key concepts include assessment, targeted instruction, reciprocity of reading and writing, and acceleration.</td>
<td>GR</td>
</tr>
<tr>
<td>HST3800</td>
<td>Fall 22</td>
<td>Intro to Gender History</td>
<td>HST</td>
<td>3800</td>
<td>Special topics in gender history, such as masculinity, femininity, sexuality, family, and women's history. Focus may be on one nation, region, or a comparative perspective.</td>
<td>UG</td>
</tr>
<tr>
<td>JPN3120</td>
<td>Fall 22</td>
<td>Adv Japanese Conv</td>
<td>JPN</td>
<td>3120</td>
<td>Continued practice in oral use of Japanese, emphasizing the culture of the Japanese world. Department Managed Prerequisite(s): Undergraduate level JPN 2020 Minimum Grade of D or AP Japanese Language &amp; Culture 4 or above.</td>
<td>UG</td>
</tr>
<tr>
<td>PSI8100</td>
<td>Fall 22</td>
<td>Psychometrics</td>
<td>PSI</td>
<td>8100</td>
<td>This course introduces the fundamental principles of psychometrics. This course is designed to prepare students to apply these psychometric concepts to clinical assessment.</td>
<td>GR</td>
</tr>
<tr>
<td>CHM5120</td>
<td>Fall 22</td>
<td>Quantitative Analysis</td>
<td>CHM</td>
<td>5120</td>
<td>Introduction to chemical methods of analysis covering traditional as well as modern techniques and equipment; emphasis on calculations and interpretation of analytical data.</td>
<td>GR</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM6610 6610</td>
<td>Synthetic Polymer Chem / Polymer</td>
<td>CHM Chemistry</td>
<td>2</td>
<td>Step-growth and chain-growth polymerization in homogeneous and heterogeneous media; properties of commercial polymers.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED4210 4210</td>
<td>Read &amp; Write Across Curr</td>
<td>ED Education</td>
<td>3</td>
<td>Engages teacher candidates in reading and writing across various literary genres and introduces them to reading and writing workshop methods. Integrated Writing course.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES3160L 3160L</td>
<td>Stratigraphy &amp; Sediment Lab</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>0</td>
<td>Required laboratory for EES 3160.</td>
<td>UG LB Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW6990 6990</td>
<td>Independent Study SW</td>
<td>SW Social Work</td>
<td>1</td>
<td>Independent research on social work topic.</td>
<td>GR IS Independen t Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>FIN4440 4440</td>
<td>FinTech</td>
<td>FIN Finance</td>
<td>3</td>
<td>FinTech is an abbreviation for Financial Technology, which refers to the use of cutting-edge technological and other methods in the financial sector. This course covers the history and practical applications of FinTech, including cryptocurrencies and blockchain related technologies, payment processing, peer-to-peer lending, crowdfunding, big and alternative financial data, machine learning, risk pricing and adverse selection, or other emergent areas.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUE4660 4660</td>
<td>Concert Band</td>
<td>MUE Music Ensembles</td>
<td>1</td>
<td>Performs band music of all styles. Open to all students without audition.</td>
<td>UG LL Lecture/Lab Combinatio n</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ISG7260 7260</td>
<td>Assess in Gift Ed</td>
<td>ISG Intervention Specialist Gifted</td>
<td>3</td>
<td>National and State perspectives on the role of assessment in program design, identification of students, development of written education plans and classroom instruction.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>WGS3000 3000</td>
<td>Ctr Sexuality Studies</td>
<td>WGS Women, Gender, and Sexuality</td>
<td>3</td>
<td>Introduction to how individual identities and social expressions of sexuality are shaped and reflected by cultural, political, historical, psychological, and biological contexts. Students with credit for WMS 3010 cannot receive credit for WGS 3000.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG3970 3970</td>
<td>Independent Study</td>
<td>CEG Computer Engineering</td>
<td>1</td>
<td>Independent study in computer engineering topics.</td>
<td>UG IS Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE6700L 6700L</td>
<td>Introduction to MEMS Lab</td>
<td>EE Electrical Engineering</td>
<td>1</td>
<td>Experimental design, realization and testing of MEMS devices with emphasis on sensing applications.</td>
<td>GR LB Lab</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PTX4003 4003</td>
<td>Explosives Defense</td>
<td>PTX Pharmacology/Toxicology</td>
<td>3</td>
<td>Explosive Defense provides an understanding of the most common explosive and explosive devices with associated countermeasures. To benefit students without formal explosives education, this course provides a brief review of fundamental explosive physics, chemistry, regulations and application.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL7970 7970</td>
<td>Data Driven Dec-Mkg: Schl Ldr</td>
<td>EDL Educational Leadership</td>
<td>3</td>
<td>Exploring the use of appropriate, meaningful data for making decisions for leading schools as a normative professional standard.</td>
<td>GR SE Seminar</td>
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<tr>
<td>Fall 2022</td>
<td>CNL6200 6200</td>
<td>Clin Pathology in Counsel</td>
<td>CNL Counseling</td>
<td>3</td>
<td>Introduces students in human services to basic psychopathology, factors influencing the behavior of individuals and methods a counselor may use in observing, analyzing and improving attitudes and behavior.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY8230 8230</td>
<td>Psycholinguistics</td>
<td>PSY Psychology</td>
<td>2</td>
<td>This course introduces students to the major concepts and theories in the area of psycholinguistics, the study of language processes, primarily in humans.</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG7110 7110</td>
<td>Literary Theory &amp;Prac Lit Crit</td>
<td>ENG English</td>
<td>3</td>
<td>Reading, research, and discussion of topics dealing with analysis of literary texts through major theoretical and critical approaches (such as ecocriticism, cultural materialism, postmodernism, gender theory, or postcolonial theory). Titles vary.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG4900 4900</td>
<td>Special Topics</td>
<td>CEG Computer Engineering</td>
<td>1</td>
<td>Special topics in computer engineering.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EDL7110 7110</td>
<td>Tchr Ldr Sem: Midpoint</td>
<td>EDL Educational Leadership</td>
<td>1</td>
<td>Developing leadership skills and abilities; and, investigating the dynamics of team functioning, including decision-making models and processes, problem-solving techniques, communication skills, conflict management, and self-improvement.</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS4240 4240</td>
<td>Coding Theory</td>
<td>CS Computer Science</td>
<td>3</td>
<td>Essentials of error-correcting codes, including methods for efficient and accurate transfer of information. Perfect and related codes, linear and cyclic codes, BCH codes, Reed-Muller codes, Reed-Solomon codes, Self-dual codes, weight enumerators and bounds.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY6950 6950</td>
<td>Sex &amp; Endocrinology Cap</td>
<td>PSY Psychology</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge on sexuality and endocrinology.</td>
<td>GR SE Seminar</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PSY8110 8110</td>
<td>Appl. of Visual Science</td>
<td>PSY Psychology</td>
<td>3</td>
<td>Study of visual systems including psychophysical measurement, temporal and spatial properties, display criteria, colorimetry, and visual system modeling.</td>
<td>GR LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ANT8990 8990</td>
<td>Anatomy Research</td>
<td>ANT Anatomy</td>
<td>1</td>
<td>Supervised thesis research.</td>
<td>GR IS Independent Study</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES2550 2550</td>
<td>Earth History</td>
<td>EES Earth &amp; Environmental Sciences</td>
<td>4</td>
<td>Comprehensive treatment of the earth's past as interpreted through the study of rocks and fossils. Basic concepts include geologic time and age dating, and the physical, chemical, and organic evolution during geologic time periods. The history of plate movements and mountain building events, especially in North America. Three hours lecture, two hours lab. Department Managed Prerequisite(s): Undergraduate level EES 2510 Minimum Grade of D-.</td>
<td>UG LE Lecture</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>DAN3070 3070</td>
<td>Intermed Tap Dance I</td>
<td>DAN Dance</td>
<td>1</td>
<td>Group class exploring tap dance technique.</td>
<td>UG ST Studio</td>
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<td>CRN</td>
<td>Course Title</td>
<td>Section</td>
<td>Title/Role</td>
<td>Credits</td>
<td>Description</td>
<td>CRN</td>
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<tr>
<td>ME6250</td>
<td>Kinematics &amp; Design-Mech</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>3</td>
<td>Graphical, analytical, numerical, and symbolic techniques are used in the kinematic and dynamic analysis of machines. Computer-aided design of mechanisms is introduced. Emphasis on the application of these techniques to planar mechanisms.</td>
<td>LEP0615</td>
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<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Department</td>
<td>Credits</td>
<td>Description</td>
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<td>DOS9010</td>
<td>History &amp; Theory of Org</td>
<td>DOS</td>
<td>3</td>
<td>Survey of the field of organizational studies for understanding of patterns in theoretical arguments and research approaches across multiple perspectives that continue to frame scholarship. Emphasizes flexible forms of coordinated action taking place within, around, and among formal organizations.</td>
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<tr>
<td>PTX7031</td>
<td>Circadian Med&amp;Chronop harm</td>
<td>PTX</td>
<td>3</td>
<td>In this course, we will explore how the body's circadian clock is controlled at the organ, cellular, and molecular levels and examine the ways in which the clock impacts different disease states and drug treatments.</td>
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<tr>
<td>PHY1120L</td>
<td>Prin Physics Lab II</td>
<td>PHY</td>
<td>1</td>
<td>Introductory-level laboratory problems.</td>
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<tr>
<td>TH3350</td>
<td>Costume Crafts</td>
<td>TH</td>
<td>3</td>
<td>Creative, innovative, and often inexpensive alternatives for the creation of jewelry applique, embellishments, armor, crowns, and basic millinery techniques for theatrical production.</td>
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<tr>
<td>RST2620</td>
<td>Regional Studies: China</td>
<td>RST</td>
<td>3</td>
<td>Introduction to the historical, cultural, economic, and political reality of the world's most populous country, highlighting the cultural contributions of China's rich history, not only in the creation of modern Chinese culture but its impact on other cultures. Integrated Writing course.</td>
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<tr>
<td>COM4430</td>
<td>Interviewing</td>
<td>COM</td>
<td>3</td>
<td>Through a matrix organizational structure, students experience theory in selection, survey, journalistic, performance appraisal, persuasion, and counseling interviewing situations with the focus on human resource development.</td>
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<tr>
<td>PTX8110</td>
<td>All Healthcare Sys India</td>
<td>PTX</td>
<td>3</td>
<td>The course includes a two week visit to Alvas Ayurvedic Medical College, Moodabidre, Mangalore, India where students will witness the way Ayurveda is practiced and integrated with modern medicine. This course is primarily designed to introduce a natural way of providing health care that is practiced in India as a complimentary health care system.</td>
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<tr>
<td>AM7871</td>
<td>Space Medicine I</td>
<td>ASM</td>
<td>3</td>
<td>Space Medicine I will introduce Aerospace physicians to the unique environment of medical operations involved in sub-orbital, orbital, and beyond earth orbit space flight operations.</td>
<td></td>
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</tr>
<tr>
<td>BIO4700</td>
<td>General Entomology</td>
<td>BIO</td>
<td>4</td>
<td>Basic biology of insects, including their morphology, physiology, life history, ecology, evolution and taxonomy.</td>
<td></td>
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</tr>
<tr>
<td>REL3400</td>
<td>Religion</td>
<td>REL</td>
<td>3</td>
<td>Studies in the religious dimension of Asian cultures with attention to historical, social, and aesthetic perspectives.</td>
<td></td>
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</tr>
<tr>
<td>WGS4200</td>
<td>Women Int'l Perspective</td>
<td>WGS</td>
<td>3</td>
<td>Issues, approaches and topics in women and gender studies, with focus on racial, ethnic, cultural, and other differences among women outside of the U.S. Topics and titles vary.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ISM8010</td>
<td>Research &amp; Career Dev. 2</td>
<td>ISM</td>
<td>3</td>
<td>This course is a follow-up to ISM Research and Career Development I with the goal of continuing to advance student preparation for thesis research. This course builds on the prerequisite, ISM 8000, with a focus on the development of research projects and proposals. Students will continue to get exposure to the research activities of program faculty via seminars. In addition, the student activity in this course will focus on the development of a mock research proposal.</td>
<td></td>
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</tr>
<tr>
<td>EE6660</td>
<td>Intro Robotics</td>
<td>EE</td>
<td>3</td>
<td>An introduction to the mathematics of robots. Topics covered include coordinate systems and transformations, manipulator kinematics and inverse kinematics, Jacobians, dynamic and trajectory planning.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ELS4600</td>
<td>Politics of Multi-Age</td>
<td>ELS</td>
<td>3</td>
<td>Comparative study of the political systems of Great Britain, France, and Germany. Integrated Writing course.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>M&amp;I7890</td>
<td>Research in M&amp;I</td>
<td>M&amp;I</td>
<td>1</td>
<td>Students will complete their research and/or thesis under the guidance of a faculty member.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ED6200</td>
<td>Practicum: Multi-Age</td>
<td>ED</td>
<td>2</td>
<td>Educators with prior teaching license(s), under the direct supervision of an experienced classroom teacher, are assigned to a school for field experience in grades PK-12 and their concentration area(s).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>KNH4300</td>
<td>Coaching Theory</td>
<td>KNH</td>
<td>3</td>
<td>Theory, methods, skills, strategies, organization, psychology, ethics, conditioning, and general aspects of teaching and coaching a particular sport. Typical sports covered include baseball, basketball, and soccer.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CEG6440</td>
<td>Android Int &amp; Security</td>
<td>CEG</td>
<td>3</td>
<td>Study the internals of the Android mobile OS such as Messaging, Graphics, Audio, Video, Camera, GPS, Networking, File System, Touch Sensors, and other subsystems. Study the combined impact of these on the architecture, design, and security of mobile computing, in the context of Android.</td>
<td>&lt;br&gt;Department Managed Prerequisite(s): Undergraduate level CS 3100 Minimum Grade of C or Graduate level CS 5100 Minimum Grade of C&lt;br&gt;</td>
<td>&lt;br&gt;</td>
</tr>
<tr>
<td>MIT7890</td>
<td>Research in M&amp;I</td>
<td>MIT</td>
<td>1</td>
<td>Complete thesis research and/or non-thesis research under the guidance of a faculty member.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PHY2460</td>
<td>Concepts in Physics MCE</td>
<td>PHY</td>
<td>3</td>
<td>Fundamental concepts and applications of physics designed for middle childhood education majors. Topics are integrated with mathematics and include laboratory experiences, demonstrations, and projects. Students may use either PHY 2450 or PHY 2460, but not both courses, to satisfy the requirements of the WSU Core.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
| STT7020     | Stochastic Processes | STT | 3 | Stationary processes, Markov chains, Poisson processes, pure birth process, queuing processes, inventory problems, traffic flow problems, introduction to financial processes. |<br>Department Managed Prerequisite(s): Graduate level STT 6610 Minimum Grade of D<br>
<table>
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<tr>
<th>Fall 2022</th>
<th>Course Code</th>
<th>Credits</th>
<th>Title</th>
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<tr>
<td>TEG2920</td>
<td>2920</td>
<td>4</td>
<td>Indus Elect Fluid Power</td>
</tr>
<tr>
<td>TEG</td>
<td>Technical Engineering</td>
<td></td>
<td>Identification and construction of basic electrical, motor and motor control and fluid power circuits. Includes diagnostics and the repair of simple circuits and controls.</td>
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<tr>
<td>URS4410</td>
<td>4410</td>
<td>3</td>
<td>Cities and Technology Urban Affairs</td>
</tr>
<tr>
<td>URS</td>
<td>Urban Affairs</td>
<td></td>
<td>Studies evolving relationship between technology and urban growth, physical form, government, and politics. Explores how technological fixes for complex urban problems have shaped urban development and politics.</td>
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<tr>
<td>ATH4010</td>
<td>4010</td>
<td>3</td>
<td>Kinship/Social Structure ATH Anthropology</td>
</tr>
<tr>
<td>ATH</td>
<td>Anthropology</td>
<td></td>
<td>An examination of the study of kinship as the basis for understanding social structure cross-culturally. Examines the central role kinship plays in stateless societies, how state formation utilized kinship analogs, and how kinship relates to issues of household organization and class and gender relations. Integrated Writing course.</td>
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<tr>
<td>MGT8000</td>
<td>8000</td>
<td>1</td>
<td>Special Topics in Mgt Management</td>
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<td>MGT</td>
<td>Management</td>
<td></td>
<td>Seminar in a management topic of current and timely interest. Topics and prerequisites vary.</td>
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<tr>
<td>MP3810</td>
<td>3810</td>
<td>6</td>
<td>Advanced MP Production I MP Motion Picture</td>
</tr>
<tr>
<td>MP</td>
<td>Motion Picture</td>
<td></td>
<td>Production of film and video projects under faculty supervision including budgeting, financing, and production. Emphasis on the documentary, fiction, and independent film within the free-lance motion pictures market.</td>
</tr>
<tr>
<td>MTH2300</td>
<td>2300</td>
<td>4</td>
<td>Calculus I MTH Mathematics</td>
</tr>
<tr>
<td>MTH</td>
<td>Mathematics</td>
<td></td>
<td>Examines limits, the derivative, differentiation, applications of the derivative, antiderivatives, Riemann sums, the definite integral, and the fundamental theorem of calculus.</td>
</tr>
<tr>
<td>PHY4620</td>
<td>4620</td>
<td>3</td>
<td>Nucl &amp; Part Physics PHY Physics</td>
</tr>
<tr>
<td>PHY</td>
<td>Physics</td>
<td></td>
<td>Nuclear properties and models, radioactive decay, nuclear applications, elementary particle properties and interactions, the standard model.</td>
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<tr>
<td>ED4560</td>
<td>4560</td>
<td>3</td>
<td>MA CIS Methods ED Education</td>
</tr>
<tr>
<td>ED</td>
<td>Education</td>
<td></td>
<td>Explores computer information science as a discipline that encourages inquiry, creativity and collaboration. This includes lesson planning, creation of a nurturing learning environment, assessment, differentiation, technology and content for computer science courses.</td>
</tr>
<tr>
<td>STT4110</td>
<td>4110</td>
<td>3</td>
<td>Applied Time Series STT Statistics</td>
</tr>
<tr>
<td>STT</td>
<td>Statistics</td>
<td></td>
<td>Stochastic models for discrete time series in the time-domain, moving average processes, autoregressive processes, model identification, parameter estimation, and forecasting. Statistical computing software packages are used.</td>
</tr>
<tr>
<td>STT5900</td>
<td>5900</td>
<td>3</td>
<td>Topics in Stat and Prob STT Statistics</td>
</tr>
<tr>
<td>STT</td>
<td>Statistics</td>
<td></td>
<td>May be taken for letter grade or pass/unsatisfactory. Titles vary.</td>
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<tr>
<td>MTH3990</td>
<td>3990</td>
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<td>Selected Topics in Math MTH Mathematics</td>
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<tr>
<td>MTH</td>
<td>Mathematics</td>
<td></td>
<td>Selected topics in mathematics.</td>
</tr>
<tr>
<td>ISE1110</td>
<td>1110</td>
<td>4</td>
<td>Intro Eng Sci Applications All ISE Industrial &amp; Systems Engr</td>
</tr>
<tr>
<td>ISE</td>
<td>Industrial &amp; Systems Engr</td>
<td></td>
<td>Focus on getting students excited about engineering science and introduces students to science, technology, and their roles in society. It provides active-learning team-based application of the foundations of engineering science to real-world practice. Primary applications focus on examples from Industrial and Systems Engineering, including project management, operations management, organizational performance, and facilities engineering. Introduces students to science, technology, and their roles in society.</td>
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<tr>
<td>ENG7610</td>
<td>7610</td>
<td>3</td>
<td>Seminar in ILA ENG English</td>
</tr>
<tr>
<td>ENG</td>
<td>English</td>
<td></td>
<td>Advanced study of theory and pedagogy of the language arts: reading, writing, listening, speaking, viewing, and/or visually representing. Department Managed Prerequisite(s): Graduate level ENG 7010 Minimum Grade of D or Graduate level ENG 7020 Minimum Grade of D or Graduate level ENG 7030 Minimum Grade of D or Graduate level ENG 7070 Minimum Grade of D or Graduate level ENG 7070 Minimum Grade of D or Graduate level ENG 7070 Minimum Grade of D or Graduate level ENG 7070 Minimum Grade of D or Graduate level ENG 7070 Minimum Grade of D.</td>
</tr>
<tr>
<td>ME5000</td>
<td>5000</td>
<td>3</td>
<td>Exp. Meas. and Instr. ME Mechanical and Materials Engr</td>
</tr>
<tr>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td></td>
<td>Techniques, equipment, and measurement procedures used by Mechanical Engineers: writing lab reports, performing data acquisition, applying statistics to experimental data, signal analysis, measurement system analysis, etc. Department Managed Prerequisite(s): Undergraduate level ME 1030 Minimum Grade of D and Undergraduate level ME 2120 Minimum Grade of C and Undergraduate level MTH 2350 Minimum Grade of D and Undergraduate level D and Undergraduate level EE 2010 Minimum Grade of D.</td>
</tr>
<tr>
<td>ED3040</td>
<td>3040</td>
<td>3</td>
<td>MCE Gen Lang Arts Instr ED Education</td>
</tr>
<tr>
<td>ED</td>
<td>Education</td>
<td></td>
<td>Methods for teaching 4th, 5th, and 6th grades language arts pertinent to the Ohio Learning Standards ELA with emphasis on content, developmentally appropriate pedagogy, curricula, and materials.</td>
</tr>
<tr>
<td>EE6600</td>
<td>6600</td>
<td>3</td>
<td>UAV Flight Control EE Electrical Engineering</td>
</tr>
<tr>
<td>EE</td>
<td>Electrical Engineering</td>
<td></td>
<td>Introductory course of UAV autopilot design. Major topics include quadropter dynamics and modeling, UAV sensors, stabilization and control of altitude, pitch/roll, and yaw, position navigation using orientation angles, waypoint navigation, integration and practical issues. Department Managed Prerequisite(s): Graduate level EE 6130 Minimum Grade of D and Graduate level EE 6130L Minimum Grade of D and Graduate level EE 6130L Minimum Grade of D.</td>
</tr>
<tr>
<td>M&amp;I7270</td>
<td>7270</td>
<td>4</td>
<td>Pathogenic Microbiology M&amp;I Microbiology &amp; Immunology</td>
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<tr>
<td>M&amp;I</td>
<td>Microbiology &amp; Immunology</td>
<td></td>
<td>(Also listed as BMS 8030) Microorganisms pathogenic for humans and animals using the organ system approach. Emphasis on mechanisms of pathogenesis and host resistance. Includes a project segment devoted to the independent study of the mechanisms of pathogenesis in the host-parasite interactions of the infectious agents used.</td>
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<tr>
<td>KNN1760</td>
<td>1760</td>
<td>1</td>
<td>Walk-Jog-Run KNN Kinesiology &amp; Health</td>
</tr>
<tr>
<td>KNN</td>
<td>Kinesiology &amp; Health</td>
<td></td>
<td>Fundamental skills and knowledge of Walk-Jog-Run. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>NUR3421</td>
<td>3421</td>
<td>1</td>
<td>Crtd Rnng Nrsng Indvdl&amp;Gr MH NUR Nursing</td>
</tr>
<tr>
<td>NUR</td>
<td>Nursing</td>
<td></td>
<td>Focuses on critical reasoning and in the care of individuals and groups with common mental health disorders. Emphasizes therapeutic use of self for enhancing effective communication. Incorporates principles from abnormal psychology, group dynamics, milieu nursing, and complex care relationships, substance use/abuse, crisis intervention, delivery models.</td>
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<tr>
<td>AES2230</td>
<td>2230</td>
<td>1</td>
<td>Evolution of USAF II AES Aerospace Studies</td>
</tr>
<tr>
<td>AES</td>
<td>Aerospace Studies</td>
<td></td>
<td>Preparation for Field Training summer program. Training is cadet-led. Requires participation in two weekly physical training sessions.</td>
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<tr>
<td>Course Code</td>
<td>Credits</td>
<td>Title</td>
<td>Department/Discipline</td>
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<tr>
<td>REL2000</td>
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<td>Asian Religions</td>
<td>REL Religion</td>
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<tr>
<td>EE4620L</td>
<td>4620L</td>
<td>Dig Integ Ckt Design Lab</td>
<td>EE Electrical Engineering</td>
</tr>
<tr>
<td>ME6550</td>
<td>6550</td>
<td>Geothermal Energy</td>
<td>ME Mechanical and Materials Engr.</td>
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<tr>
<td>EES4510</td>
<td>4510</td>
<td>Scientific Communication</td>
<td>EES Earth &amp; Environmental Sciences</td>
</tr>
<tr>
<td>BMB6990</td>
<td>6990</td>
<td>Spec Problems in Biochem</td>
<td>BMB Biochem &amp; Molecular Biology</td>
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<tr>
<td>MTH1144</td>
<td>1440</td>
<td>Math Modern World w/ Alg</td>
<td>MTH Mathematics</td>
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<td>ABS7120</td>
<td>7120</td>
<td>Applied Methodology</td>
<td>ABS Applied Behavioral Sciences</td>
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<td>HST7810</td>
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<td>Public Hist Internship</td>
<td>HST History</td>
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<td>BMS9030</td>
<td>9030</td>
<td>Human Neurobiology</td>
<td>BMS Biomedical Sciences</td>
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<td>HST6220</td>
<td>6220</td>
<td>Russian/Soviet History</td>
<td>HST History</td>
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<tr>
<td>EE4920</td>
<td>4920</td>
<td>Elect Egr Senior Des II</td>
<td>EE Electrical Engineering</td>
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<tr>
<td>ENG7340</td>
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<td>Seminar: Literary Genres</td>
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<td>4770</td>
<td>Independent Study in Fin</td>
<td>FIN Finance</td>
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<td>MUS1150</td>
<td>1150</td>
<td>Fund of Musicianship II</td>
<td>MUS Music</td>
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<td>MKT4670</td>
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<td>Analytics Tools Insights</td>
<td>MKT Marketing</td>
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<td>Sp Topics Creative Wrt</td>
<td>ENG English</td>
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<td>3160</td>
<td>Stratigraphy &amp; Sediment</td>
<td>EES Earth &amp; Environmental Sciences</td>
</tr>
<tr>
<td>BMB7530</td>
<td>7530</td>
<td>Molecular Signaling</td>
<td>BMB Biochem &amp; Molecular Biology</td>
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<tr>
<td>REL3640</td>
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<td>Religion &amp; Pol in Amer</td>
<td>REL Religion</td>
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<td>Fall 2022</td>
<td>FR3250</td>
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<td>Business French</td>
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<td>Fall 2022</td>
<td>REL3120</td>
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<td>Modern Jewish Thought</td>
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<td>CSD Practicum II</td>
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<td>Industrial Controls Lab</td>
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<td>Art Hist II: Ren Contemp</td>
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<td>Special Topics Biologic</td>
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<td>Web Theory and Design I</td>
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<td>Fall 2022</td>
<td>CEG2350</td>
<td>2350</td>
<td>Op Sys Concepts &amp; Usage</td>
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<td>Intro to</td>
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**Course Descriptions:**

- **MTH7510**
  - **Credit Hours:** 4
  - Groups: isomorphism theorems, Jordan-Holder theorem, permutation groups, Sylow theorems, finitely generated Abelian groups, and free groups. Rings and Modules: homomorphisms, ideals, principal ideal domains, the Euclidean algorithm, unique factorization, radicals. **Department Managed Prerequisite(s): Undergraduate level MTH 4520 Minimum Grade of D or Graduate level MTH 6520 Minimum Grade of D.**

- **EDS6110**
  - **Credit Hours:** 3
  - Introduction to Ohio Department of Education k through 12th grade social studies content standards. Addresses social studies knowledge, pedagogy, and PRAXIS exam expectations. **Department Managed Prerequisite(s): EDS 5120.**

- **SW6735**
  - **Credit Hours:** 3
  - Addresses the developmental and permanence needs of children in the child welfare system. **Department Managed Prerequisite(s): SW 6700.**

- **PHL3140**
  - **Credit Hours:** 3
  - Examination of the possibility of knowledge, limits, methods and value. Readings vary but may include Plato, Descartes, Hume, Russell, Moore, Gettier, Nozick, Bonjour, Quine, Kripke, Putnam and Williamson. **Integrated Writing course.**

- **DAN4220**
  - **Credit Hours:** 2
  - Diversified styles and techniques of advanced jazz/musical theatre dancing. Emphasis on the continued development of advanced techniques, repertoire, composition, coordination, musicality, and variation of style. **Department Managed Prerequisite(s): Undergraduate level DAN 2220 Minimum Grade of D or Graduate level DAN 6320 Minimum Grade of D.**

- **ATH4310**
  - **Credit Hours:** 3
  - Explores human skeletal markers of interpersonal violence, occupation, social status, diet, & physiological stress. Reviews material in archaeological and evolutionary contexts throughout prehistory. Prior completion of ATH 2100 and one upper level Bio-archaeological course is strongly encouraged. **Integrated Writing course.**

- **MUS7710**
  - **Credit Hours:** 3
  - Pedagogical Research in Music Education is designed to offer graduate students pursuing the Masters in Music Education degree a course that will allow them to choose pedagogical research which supports their career directions in music education. **Integrated Writing course.**

- **EGR7040**
  - **Credit Hours:** 3
  - Concepts of minima and maxima; linear, dynamic, integer and nonlinear programming; variational methods. **Integrated Writing course.**

- **BME4550L**
  - **Credit Hours:** 0
  - Required laboratory for BME 4550. **Department Managed Prerequisite(s): Undergraduate level BME 4550 Minimum Grade of D or Graduate level BME 6550 Minimum Grade of D.**

- **CLS5340**
  - **Credit Hours:** 3
  - Greece in the Bronze Age; classical Greece and Rome; and selected areas of Greek and Roman art and archaeology. **Integrated Writing course.**

- **MUE4680**
  - **Credit Hours:** 4
  - A jazz performance-oriented group. Students learn elements of ensemble execution, professionalism, jazz history, jazz styles, and jazz improvisation. **Audition required.**

- **RHB3720**
  - **Credit Hours:** 3
  - Introduction to counseling and mental health services around the globe. Overview of the historical treatment, societal perceptions, services, and outcomes of people with severe mental illnesses internationally. **Integrated Writing course.**

- **REL3950**
  - **Credit Hours:** 3
  - Introductory survey of Asian philosophy covering classical East Asian and South Asian concepts of human nature, death, knowledge, ethics, self-cultivation, sociopolitical philosophy, and aesthetics. **Integrated Writing course.**

- **BIO4750**
  - **Credit Hours:** 4
  - Overview of the major themes of fish evolution, anatomy, physiology, and ecology, with special emphasis on freshwater species. Includes practical field experience in collection, dissection, and identification. **Integrated Writing course.**

- **MUE6930**
  - **Credit Hours:** 2
  - Development of advanced choral and vocal skills. Emphasis on advanced choral literature from a wide range of historical and compositional styles. **Audition required.**

- **RHB3030**
  - **Credit Hours:** 3
  - Overview of career development and placement techniques. Various methods of accessing the career market, occupation information, and various strategies used to assist people in becoming employed. **Integrated Writing course.**

- **FMS1310**
  - **Credit Hours:** 3
  - Examines critical approaches of authorship, genre, presentation, and narrative, with an emphasis on the language of cinema, basic film concepts, techniques, and terminology. **Topics include spectatorship, ideology, social and political context, celebrity culture, arthouse meaning, and modes of criticism.**

- **GER3210**
  - **Credit Hours:** 3
  - Oral and written composition in German. Writing techniques and grammar review. Taught in German. **Integrated Writing course.**

- **KNH1380A**
  - **Credit Hours:** 1
  - Fundamental skills and knowledge of Kayaking: Recreational. Competency-based approach. Course may accommodate disabled students when appropriate. **This course has a fee that is non-refundable once the term begins.**

- **BIO7120**
  - **Credit Hours:** 3
  - Graduate level introduction to environmental biology at multiple levels of biological organization including molecular biology, organismal physiology and evolutionary biology, and community and ecosystem ecology. **Integrated Writing course.**

- **MIB8990**
  - **Credit Hours:** 2
  - Supervised thesis research. **Integrated Writing course.**
| Fall 2022         | GER3830 | 3830 | Applied Elem Ger Inst. | GER | German | 1 | German majors and minors assist GER 1010 or GER 1020 course instructors in conducting classes. Taught in German. Department Managed Prerequisite(s): Undergraduate level GER 3110 Minimum Grade of B and (Undergraduate level GER 3210 Minimum Grade of B or Undergraduate level GER 3250 Minimum Grade of B) and (Undergraduate level GER 3120 Minimum Grade of B or Undergraduate level GER 3220 Minimum Grade of B or Undergraduate level GER 3280 Minimum Grade of B or Undergraduate level GER 3310 Minimum Grade of B or Undergraduate level GER 3320 Minimum Grade of B or Undergraduate level GER 3310 Minimum Grade of B or Undergraduate level GER 3510 Minimum Grade of B or Undergraduate level GER 3610 Minimum Grade of B or Undergraduate level GER 3990 Minimum Grade of B or Undergraduate level GER 4030 Minimum Grade of B)\(<b>\) UG IS Independent Study | Fall 2022         | LEP0020 | 0020 | Writing Workshop - Pre-LEAP | LEP | LEAP | 0 | Writing workshop (revision, editing and lab) for low-beginning ESL students. This course has a fee that is non-refundable once the term begins. UG LL Lecture/Lab Combinatio n | Fall 2022         | EE4120L | 4120L | Industrial Contrls Lab | EE | Electrical Engineering | 1 | Hands-on experience in Industrial Controls, Automated Controls systems, plant modeling and control system performance. Department Managed Prerequisite(s): Undergraduate level CEG 2170 Minimum Grade of D or Undergraduate level CS 1180 Minimum Grade of D or Undergraduate level CS 1160 Minimum Grade of D or Undergraduate level ME 1600 Minimum Grade of D)\(<b>\) UG LB Lab | Fall 2022         | MTH2310 | 2310 | Calculus II | MTH | Mathematics | 4 | Integration techniques, applications of the definite integral, numeral integration and improper integrals, parametric equations and polar coordinates, infinite sequence and series, Taylor and Maclaurin Series. UG LB Lab | Fall 2022         | PHIL3650 | 3650 | Theories of Human Nature | PHIL | Philosophy | 3 | Theories of human nature. UG LE Lecture | Fall 2022         | PHY2410R | 2410R | General Physics II Rec | PHY | Physics | 0 | Required recitation for PHYS 2410. UG RE Recitation | Fall 2022         | EES6430 | 6430 | Analy & Pred Complex Sys | EES | Earth & Environmental Sciences | 3 | Explores quantitative analysis and probabilistic forecasting of the behavior of complex nonlinear natural and human systems. Methods of analysis include fractals to quantify spatial, size, and temporal scaling and chaos to study sensitivity to initial conditions and feedback. Modeling includes self-organization and cellular automata. Systems studied include seismology, chemistry, biochemistry, hydrology, medicine, geography, and coupled human and natural systems. GR LE Lecture | Fall 2022         | OL4940 | 4940 | Talent Development | OL | Organizational Leadership | 3 | Explores the systematic and strategic approaches to talent management by learning how to assess and develop an organization's human assets. Integrated Writing course. UG SE Seminar | Fall 2022         | CS8920 | 8920 | Independent Study in CS | CS | Computer Science | 1 | Independent study in computer science. GR IS Independent Study | Fall 2022         | BME7370 | 7370 | Medical Devices | BME | Biomedical Engineering | 3 | For students who are interested in acquiring a broad-based knowledge in the human factors of medical instrumentation and devices. Approaches the design and implementation of medical technology from the perspective of patient safety and product usability. Topics to be covered will range from design guideline considerations, tools for usability analysis, and emerging trends and technologies. Department Managed Prerequisite(s): Graduate level IHE 6300 Minimum Grade of D or Undergraduate level ISE 4300 Minimum Grade of D)\(<b>\) UG LE Lecture | Fall 2022         | CEG5320 | 5320 | Digital System Design | CEG | Computer Engineering | 4 | Basics of Digital Computer Hardware and Design. Topics include switching algebra and switching functions, logic design of combinational and sequential circuits, storage elements, register-level design, and instrumentation. Department Managed Prerequisite(s): WSU Math Placement OS and an Undergraduate level CS 1180 Minimum Grade of D or Undergraduate level CS 1180 Minimum Grade of D or Undergraduate level CEG 2170 Minimum Grade of D)\(<b>\) GR LE Lecture | Fall 2022         | PHY7800 | 7800 | Plasma Physics | PHY | Physics | 3 | Introduction to plasma physics. Motion of charged particles in electric and magnetic fields. Magneto-ionic theory, continuum equations, the Vlasov equation, the Boltzmann equation, and the BBGKY equations. GR SE Seminar | Fall 2022         | KNH1600A | 1600A | Step Aerobics | KNH | Kinesiology & Health | 1 | Fundamental skills and knowledge of Step Aerobics. Competency-based approach. Course may accommodate disabled students when appropriate. UG LB Lab | Fall 2022         | PSY9090 | 9090 | Meta-Analysis | PSY | Psychology | 1 | Introduction to the use of meta-analytic methods in psychology. LE GE Lecture | Fall 2022         | CEG6424 | 6424 | Security Attacks & Def | CEG | Computer Engineering | 3 | This course presents the principles behind techniques of attacks and their defenses. It introduces reconnaissance, penetration, denial of service, and covert channels. Topics include Privilege Escalation, Hijacking, Trusted booting, Packet filtration, Protocol scrubbing and Honeypots. Lab work uses tools such as MetaSploit. LE GE Lecture | Fall 2022         | NEU4600 | 4600 | Computational Neuroscience | NEU | Neuroscience | 3 | Students will learn the fundamentals of motor control, as well as how to write code in the NEURON simulation environment to develop and run simple computer models of motoneurons under healthy and disease conditions. Students will also learn how to simulate the pathological changes in motoneurons that occur in a number of injury conditions and neurodegenerative diseases, such as spinal cord injury (SCI), multiple sclerosis (MS), and amyotrophic lateral sclerosis (ALS). UG LE Lecture | Fall 2022         | PSI8440 | 8440 | Psychodyn & Interp Ther | PSI | Professional Psychology | 3 | Covers origins and recent trends in dynamic therapies, including brief dynamic therapies and interpersonal theories and therapies and Interpersonal Psychotherapy. GR LE Lecture | Fall 2022         | BIO1190 | 1190 | Bio Honors Recitation | BIO | Biology | 1 | Recitation/discussion section to review basic concepts developed in the laboratory. Co-registration in lecture and honors laboratory is required. UG RE Recitation | Fall 2022         | PSY6730 | 6730 | Hearing Capstone | PSY | Psychology | 3 | Communication-intensive seminar integrating knowledge on the perception of hearing. GR SE Seminar |
| Fall 2022 | CS1030 | 1030 | Survey of CS and CEG | CS Computer Science | 1 | Provides broad introduction to the fields of computer science and engineering. Explores resources designed to enhance new student success. | UG LE Lecture |
| Fall 2022 | MUA7400 | 7400 | Applied Music | MUA Music: Applied Music | 4 | Open only to Graduate Students. All students must have auditioned for and have received departmental approval before registering for applied music. | GR IS Independent Study |
| Fall 2022 | EDL7751 | 7751 | Instructional Leadership | EDL Educational Leadership | 3 | Strategies for developing and maintaining continual improvement processes using systems planning and instructional data; evaluation of improvement plans; and, communicating planning and improvement with all stakeholders within various organizational contexts. | GR LE Lecture |
| Fall 2022 | MGT4770 | 4770 | Management | MGT Management | 3 | Introduction to the concepts, processes, and issues associated with training and development and performance management. Covers planning, designing, implementing, and evaluating training programs as well as creating a direct link between employee performance and organizational objectives. | UG LE Lecture |
| Fall 2022 | HPR2700 | 2700 | Educational Psychology | HPR Health Phys Educ & Recreation | 3 | Understand how people learn, how to motivate, and assess preK-12 students based on theoretical principles from field of educational psychology. | UG LE Lecture |
| Fall 2022 | ENG5530 | 5530 | Young Adult Literature | ENG English | 3 | Introduction to various genres of young adult literature with an emphasis on the selection and analysis of books for adolescents. | GR LE Lecture |
| Fall 2022 | ISG7500 | 7500 | Spec Studies in Ggf Ed | ISG Intervention Specialist Gifted | 1 | Independent Study in a selected area of intervention specialist gifted education | GR IN Internship |
| Fall 2022 | EE2010L | 2010L | Analog Circuit Theory Lab | EE Electrical Engineering | 1 | Transform-calculus approach to computer-assisted analysis, instantaneous and dynamic circuits, operational amplifiers and applications, Thevenin equivalents, frequency-domain and time-domain responses, simulation and realization of theoretical predictions. | UG LB Lab |
| Fall 2022 | PTX8005 | 8005 | Med Bio Defense | PTX Pharmacology/Toxicology | 3 | This course will provide an overview understanding of the most important biodefense and emerging infectious agents, their epidemiology, pathogenesis, animal models, and medical/environmental countermeasures with reference to regulatory requirements. | GR LE Lecture |
| Fall 2022 | EDL7810 | 7810 |Schl Finance & Economics | EDL Educational Leadership | 1 | The financing of public education and the economics of education. Guiding principles for developing financial programs and management procedures. | GR LE Lecture |
| Fall 2022 | EE7030 | 7030 | Computation & Analysis | EE Electrical Engineering | 3 | Students will learn practical and efficient computational techniques that are routinely encountered in modeling, simulation and analysis of engineering problems. | GR LE Lecture |
| Fall 2022 | ENG3830 | 3830 | Intro to Fiction Writing | ENG English | 3 | Theory and practice of writing fiction, including critical reading of contemporary fiction and group discussion of student-written fiction. | UG LE Lecture |
| Fall 2022 | BIO4600 | 4600 | Population Genetics | BIO Biology | 4 | Examines the causes of genetic differences within and among species and how molecular biology techniques can be used to identify these differences. Emphasizes human genetics, ecology, conservation implications, and medical genetics. | UG LE Lecture |
| Fall 2022 | CHM6680 | 6680 | Exp Nanomaterials | CHM Chemistry | 3 | This course will provide a series of laboratory experiments similar to the state-of-the-art R&D in nanotechnology and nanoscience. The experiments include 1) fabrication of nanomaterials such as metal nanoparticles and graphene nanoplatelets; 2) characterization of physical and chemical properties by using techniques such as Raman spectroscopy, atomic force microscopy, terahertz spectroscopy, electrochemical analyses etc; and 3) computational modeling of nanoscale physical phenomena. | GR PKG Combinatio n |
| Fall 2022 | MKT4800 | 4800 | Internship in Marketing | MKT Marketing | 3 | On-the-job training and experience with an organization. Integrates classroom study with practical work experience. | UG IN Internship |
| Fall 2022 | CNL8670 | 8670 | Counseling | CNL Counseling | 1 | This field-based experience provides human services master’s degree students with advanced clinical practice and supervision in their major specialty areas. | GR IN Internship |
| Fall 2022 | STT6210 | 6210 | Sampling Design | STT Statistics | 3 | Classical sampling designs including simple random sampling, stratified sampling, multi-stage sampling, cluster sampling, and systematic sampling; Using auxiliary information and ratio estimators; Unequal probability sampling, detectability and line transect methods; composite and ranked-set sampling. | GR LE Lecture |
| Fall 2022 | EE4730 | 4730 | Wireless Comm | EE Electrical Engineering | 3 | Overview of wireless communication: cellular network concept, wireless communication channel and multi-path fading, digital modulation/demodulation techniques for wireless communication, performance analysis, equalization, diversity and RAKE receiver, spreading spectrum technology and CDMA, cognitive radio and dynamic spectrum access, and wireless communication system simulation. | UG LE Lecture |
Fall 2022  ME4910  4910  Capstone Design I  ME  Mechanical and Materials Engr  2  First of a two-course sequence in solving realistic engineering design problems. Research in professional literature, application of systems engineering principles, and reporting of technical results. Integrated Writing course.<b> Department Managed Prerequisite(s): Undergraduate level ME 1040 Minimum Grade of D and Undergraduate level ME 3600 Minimum Grade of D and Undergraduate level MTH 2320 Minimum Grade of D and Undergraduate level MTH 2350 Minimum Grade of D and Undergraduate level PHY 2410 Minimum Grade of D and Undergraduate level PHY 2410L Minimum Grade of D and ([Undergraduate level ME 3210 Minimum Grade of D and Undergraduate level ME 3350 Minimum Grade of D and Undergraduate level ME 3360 Minimum Grade of D and Undergraduate level ME 4140 Minimum Grade of D) or ([Undergraduate level ME 3760 Minimum Grade of D and Undergraduate level ME 4620 Minimum Grade of D (ME 4620 can be taken concurrently) and Undergraduate level ME 4720 Minimum Grade of D)]).</b>  UG  PR  Practicum

Fall 2022  EES6190  6190  Paleobiology  EES  Earth & Environmental Sciences  3  Paleobiology emphasizes fossils as organisms that provide information: on the origin of higher taxa, speciation, genealogical relatedness of all life, transformation of species, and macroevolutionary trends, as well as the response, over geological time, of Earth's biota to environmental, ecological, and geographical changes. Paleobiology also emphasizes the role that fossil organisms play in reconstructing past environments and global paleogeography.  GR  LE  Lecture

Fall 2022  TH3320  3320  Automated Lighting  TH  Theatre  3  Introduction to automated lighting emphasizing skills needed to operate moving lights and effectively program consoles. Aesthetic and practical considerations regarding the use of moving lights in theatrical productions.  UG  LL  Lecture/Lab Combination

Fall 2022  CEG7560  7560  Visual & Image Process  CEG  Computer Engineering  3  The course will teach students visualization concepts and principles without requiring computer graphics specific knowledge. Similarly, basic image processing techniques will be covered relevant for cyber security, including segmentation and tracking techniques.  GR  LE  Lecture

Fall 2022  PSY8340  8340  Engineering Psychology  PSY  Psychology  4  A survey of psychological principles and methods pertinent to issues of human-machine interactions. It is emphasized that basic and applied research inform each other and are both necessary for advancing the field.<b> Department Managed Prerequisite(s): Undergraduate level PSY 2310 Minimum Grade of D and Undergraduate level PSY 4650 Minimum Grade of D</b>.  GR  LE  Lecture

Fall 2022  ENG2100  2100  Res Writing&Argu ment  ENG  English  3  Adapts principles introduced in ENG 1100 to writing in the disciplines. Extended instruction of effective multi-literacy practices required of intermediate college-level thinkers, writers, readers, and communicators. Students conduct more advanced research in their chosen or intended discipline and use multiple scholarly sources in a series of extended research-based genres for different audiences and purposes. Students plan, draft, and revise longer and more complex projects. Students give and receive feedback from peer writers in their own discipline and across disciplines. Students may use any of the following courses to satisfy the requirements of the Core, but only one may count: ENG 2100, ENG 2110, ENG 2120, ENG 2120, or ENG 2140.  GR  LE  Lecture

Fall 2022  HPR4290  4290  K-12 Practicum: Health Phy Educ & Recreation  HPR  Health Phy Educ & Recreation  12  Supervised full-time student teaching in a K-12 school setting.  UG  PR  Practicum

Fall 2022  EE5310L  5310L  Devices and Circuits Lab  EE  Electrical Engineering  1  Applications of diodes and transistors in analog circuits, design of bias circuits transistors.  GR  LB  Lab

Fall 2022  SPN3990  3990  Studies in Selected Subj  SPN  Spanish  1  Problems, approaches, and topics in the field of Spanish. Topics vary.<b> Department Managed Prerequisite(s): Undergraduate level SPN 3210 Minimum Grade of D or Undergraduate level SPN 3250 Minimum Grade of D</b>.  UG  LE  Lecture

Fall 2022  EES4620  4620  Environmental Toxicology  EES  Earth & Environmental Sciences  3  Effects of environmental contaminants on aquatic and terrestrial organisms. Effects on the biochemical and physiological levels are related to impacts on individuals, populations, and ecosystems. Current approaches for assessing environmental toxicity.  UG  LE  Lecture

Fall 2022  ED3070  3070  MCE Eff Math Inst  ED  Education  3  Methods for teaching 4th, 5th, and 6th grades mathematics pertinent to the Ohio Learning Standards with emphasis on content, developmentally appropriate pedagogy, curricula, and materials.  UG  LE  Lecture

Fall 2022  ART2330  2330  Printmaking for Non-Majors  ART  Art  3  Introduction to the materials, techniques, concepts and practice of printmaking as it applies to non-majors.  UG  ST  Studio

Fall 2022  EES6680  6680  Environ Law Scientists  EES  Earth & Environmental Sciences  3  Geared to environmental sciences students, the course discusses applicable common law principles before focusing on the variety of environmental statutes, implementing regulations and enforcement.  GR  LE  Lecture

Fall 2022  MTH4320  4320  Real Variables II  MTH  Mathematics  3  Infinite series, sequences and series of functions, power series, Taylor series, uniform convergence, topology of R^n, real-valued and vector-valued functions of several variables, derivatives and integrals of functions of several variables.  UG  LE  Lecture

Fall 2022  SOC3810  3810  Health and Society  SOC  Sociology  3  Introduction to the social dimensions of health and illness; consideration of patterns of disease, along with the organization, provision, and delivery of medical services.  UG  LE  Lecture

Fall 2022  PHY4730  4730  Mathematical Physics  PHY  Physics  3  Survey of mathematical physics, including vector analysis, analytical mechanics, electromagnetism, and thermodynamics.  UG  LE  Lecture
| Fall 2022 | PSY8640 | 8640 | Res Methods I/O Psych | PSY | Psychology | 4 | The course focuses on the unique methodological challenges faced by I/O researchers. Theory, causation, and experimental validity are reviewed. Various research designs (e.g., experiments, quasi-experiments, correlation and regression analysis, ethnographic study) are discussed. Methods of data collection (e.g., unobtrusive measurement, survey, qualitative) are reviewed. Methods of data analysis (e.g., structural equation modeling, multilevel modeling, meta analysis) are reviewed. | GR | SE | Seminar |
| Fall 2022 | ATH3520 | 3520 | America's Buried Past | ATH | Anthropology | 3 | Discussion of 300 years of historic lifeways across North America with a focus on archaeological excavations associated with colonial encounters between different ethnic, racial, and economic groups. | UG | LE | Lecture |
| Fall 2022 | MUST040 | 7040 | Found & Prin of Mus Ed | MUS | Music | 3 | Historical, philosophical, and psychological foundations of music education. Principles applied to theoretical and practical problems of music education. | GR | LE | Lecture |
| Fall 2022 | ABS7602 | 7602 | Sem Crim Just System | ABS | Applied Behavioral Science | 1 | In-depth coverage of special topics in applied behavioral science/criminal justice with special emphasis on the criminal justice system and its components. Topics vary on law, crime, police, courts, corrections, etc. 1-2 credit hours | GR | LE | Lecture |
| Fall 2022 | KNH1480B | 1480B | Rappelling | KNH | Kinesiology & Industrial & Recreation | 1 | Fundamental skills and knowledge of Rappelling. Competency-based approach. Course may accommodate disabled students when appropriate. | UG | LB | Lab |
| Fall 2022 | BMB7890 | 7890 | Continuing Registration | BMB | Biochem & Molecular Biology | 1 | Continuing registration for advanced degree. | GR | IS | Independent Study |
| Fall 2022 | EDL8740 | 8740 | Sch Finance & Bus Mgt | EDL | Educational Leadership | 3 | Guiding principles for developing adequate financial programs; detailed studies of sources of local, state, and federal revenue; and procedures for management of school funds with reference to budgeting, accounting, and auditing. | GR | LE | Lecture |
| Fall 2022 | HUM7900 | 7900 | Continuing Registration | HUM | Humanities | 1 | Limited to students who have completed coursework toward the Master of Humanities degree and must maintain registered status. | GR | IS | Independent Study |
| Fall 2022 | REL2040 | 2040 | Bible, Qur' an & West Cul | REL | Religion | 3 | Introduction to the textual formation, early historical development, and influence of Judaism, Christianity, and Islam. Integrated Writing course. | UG | LE | Lecture |
| Fall 2022 | MGT6770 | 6770 | Train & Develop: Mgmt | MGT | Management | 3 | This course is designed to provide an introduction to the concepts, processes, and issues associated with training and development and performance management. The course will cover planning, designing, implementing, and evaluating training programs as well as creating a direct link between employee performance and organizational objectives. | GR | LE | Lecture |
| Fall 2022 | IHE6711 | 6711 | Optimiz Mth | IHE | Industrial & Hum Fac Engr | 3 | Introductory course on Operations Research/Management Science/System Engineering. This course focuses on the deterministic models, especially linear, integer and network flow models and practical solution techniques. | GR | LE | Lecture |
| Fall 2022 | PTX7012 | 7012 | Introduction to Research | PTX | Pharmacology/Toxology | 1 | Three practical laboratory experiences in three week rotations each. The students will spend 3 weeks in 3 laboratories and each rotation will be concluded with a 2 page summary, signed by the laboratory PI. Upon completion the Pharr & Tox student should have a laboratory picked to complete thesis work. | GR | LB | Lab |
| Fall 2022 | KNH1800B | 1800B | Weight Training: Women | KNH | Kinesiology & Industrial & Recreation | 1 | Fundamental skills and knowledge of Weight Training: Women. Competency-based approach. Course may accommodate disabled students when appropriate. | UG | LB | Lab |
| Fall 2022 | BME7980 | 7980 | Special Topics in BME II | BME | Biomedical Engineering | 1 | Graduate special topics in advanced biomedical engineering. Topics vary. | GR | LE | Lecture |
| Fall 2022 | KNH1400B | 1400B | Lifeguard Training | KNH | Kinesiology & Industrial & Recreation | 1 | Intermediate level of skills and knowledge in lifeguard training. Competency-based approach. Students should check competency levels posted in physical education building before enrolling. Students registered status. | UG | LB | Lab |
| Fall 2022 | ED4300 | 4300 | Undergraduate Practicum: AYA Teachmrn | ED | Education | 2 | Educators with prior teaching license(s), under the direct supervision of an experienced classroom teacher, are assigned to a school for a field experience in grades 7-12 and their concentration area. | GR | PR | Practicum |
| Fall 2022 | IT3420 | 3420 | Designing 3D Extnd Reality | IT | Information Technology | 3 | This class explores 3D immersive design principles and theories and how to transfer that knowledge into augmented, virtual, and mixed realities. | UG | LE | Lecture |
| Fall 2022 | EE1000 | 1000 | Intro to EE | EE | Electrical Engineering | 1 | This course is designed to acquaint incoming Electrical Engineering and Engineering Physics students with the programs, expectations, goals and career paths. | UG | LE | Lecture |
| Fall 2022 | BIO1050L | 1050L | Biology of Food Lab | BIO | Biology | 0 | Required laboratory for BIO 1050. | UG | LB | Lab |
| Fall 2022 | EE4560 | 4560 | Intro Robotics | EE | Electrical Engineering | 3 | Introduces the mathematics of robots with emphasis on coordinate systems and transformations, manipulator kinematics and inverse kinematics, Jacobian, trajectory planning, dynamics and control. | UG | LE | Lecture |
| Fall 2022 | ME7550 | 7550 | Photovoltaic Energy Mgmt | ME | Mechanical & Materials Engr | 3 | Different types of solar cell materials including crystalline and amorphous cells as well as techniques for increasing their efficiency will be presented. | GR | LE | Lecture |
| Fall 2022 | BMS7462 | 7462 | Rehabs Eng Computers II | BMS | Biomedical Sciences | 3 | Continuation of BMS 7461. Focuses on development of computer application programs and assistive devices for people with disabilities. | GR | LE | Lecture |
| Fall 2022 | 6450 | Politics of Mid East | PLS | Political Science | 3 | Introduction to governments and politics of the Middle East with special attention to cultural and historical background and the Arab-Israeli conflict. | GR | LE | Lecture |
| Fall 2022 | 2350 | Branding Experience | IT | Information Technology | 3 | Techniques and strategies used in brand creation applied to graphic design. | UG | LE | Lecture |
| Fall 2022 | 3760 | Diffusion and Kinetics | ME | Mechanical and Materials Engr | 3 | This course introduces the fundamentals of structure-property relations in metals and alloys related to transformations and kinetics. Application of basic thermodynamics, relation to microstructure, diffusion, interfaces, solidification transformation, and kinetics are covered.<br> Department Managed Prerequisite(s): Undergraduate level ME 3750 Minimum Grade of D
<p>| UG | LE | Lecture |
| Fall 2022 | 7873 | Space Medicine III | ASM | Aerospace Medicine | 2 | Space Medicine III will introduce Aerospace physicians to the unique environment of medical operations involved in sub-orbital, orbital, and beyond earth orbit space flight operations. | GR | SE | Seminar |
| Fall 2022 | 3520 | Social Psychology | SOC | Sociology | 3 | Scientific approach to exploring human expression through the application of contemporary and historic research. | UG | LE | Lecture |
| Fall 2022 | 5160 | Studies 20th Century Art | ART | Art | 3 | General surveys and intensive studies of the period, major movements, and artists of the time. | GR | LE | Lecture |
| Fall 2022 | 6560 | Politics of Europe | PLS | Political Science | 3 | Comparative study of the political systems of Great Britain, France, and West Germany. | GR | LE | Lecture |
| Fall 2022 | 4830 | Independent Study | MG1 | Management | 1 | Independent study to explore an area of particular interest in management or international business. | UG | IS | Independent Study |
| Fall 2022 | 6030 | Stats Res for Counseling | CNL | Counseling | 3 | Surveys counseling and rehabilitation research, evidence-based practice, program evaluation, needs assessment, descriptive, inferential, qualitative, and single-case designs statistical analysis, and ethical and culturally relevant strategies for interpreting and reporting human services research. | GR | LE | Lecture |
| Fall 2022 | 2940 | Mind, Body &amp; Consciousness | PSY | Psychology | 3 | An exploration of modern ideas about consciousness, how it is related to the mind and body, its usefulness, and its relationship to reality. | UG | LE | Lecture |
| Fall 2022 | 3800 | Special Topics/Methods | ATH | Anthropology | 3 | Selected topics concerning the training of undergraduate majors in current methodologies used in cultural, biological or archaeological anthropology. Topics vary. | UG | LE | Lecture |
| Fall 2022 | 2500 | Promotional Design | IT | Information Technology | 3 | Designing, writing, and using creative ideas in developing advertisements with consideration of cultural diversity. | UG | LL | Lecture/Lab Combinations |
| Fall 2022 | 4990 | Special Problems Biology | BIO | Biology | 1 | Independent laboratory study course. | UG | IS | Independent Study |
| Fall 2022 | 7640 | Social Work Field Ed Seminar I | SW | Social Work | 1 | Designed to integrate Field Education I experience and coursework. Offered concurrently with foundation fieldwork. | GR | SE | Seminar |
| Fall 2022 | 2010 | Intermediate Russian I | RUS | Russian | 3 | Grammar review, reading, and discussion of selected texts with practice in speaking and writing. Taught in Russian.&lt;br&gt; Department Managed Prerequisite(s): Undergraduate level RUS 1020 Minimum Grade of C |
| Fall 2022 | 6010 | Adv Reading in the Corlte | ED | Education | 3 | Reading in the content area that includes instruction in organizing instruction, use of protocols for oral language development, strategies for word skill development, reading comprehension and assessment for instructional purposes. | GR | LE | Lecture |
| Fall 2022 | 3990 | Special Topics | AFS | Afr /Afr Amer Studies | 3 | Selected topics relevant to historical and current issues in African and African American Studies | UG | LE | Lecture |
| Fall 2022 | 4326 | IC Hardware Security and Trust | CEG | Computer Engineering | 3 | Analyze hardware security/trust and be able to implement various countermeasures to improve trust for hardware IC systems. Topics include IC design flow/lifecycle, trust issues at each stage of the IC lifecycle, attack methodologies that threaten HW IC systems, countermeasures to improve trust for HW IC systems, improving Trust for both ASIC and FPGA based systems. | UG | LE | Lecture |
| Fall 2022 | 4020 | Current Lit in Biology | BIO | Biology | 3 | Uses current research articles to develop critical thinking skills. Designed for advanced undergraduate or beginning graduate students. Integrated Writing course. | UG | LE | Lecture |
| Fall 2022 | 6530L | Exercise Physiology Lab | EXB | Exercise Biology | 0 | Required laboratory for BIO 4430. | GR | LB | Lab |
| Fall 2022 | 6290 | Remote Sensing of Earth | EES | Earth &amp; Environmental Sciences | 3 | In Remote Sensing and Digital Image Processing students learn the methods and concepts of remote sensing from an Earth Sciences perspective. Students learn to interpret various types of images including stereo air photos, airborne multi-spectral digital images and satellite images. Hands-on digital image processing is conducted using industry standard software. | GR | LB | Lab |
| Fall 2022 | 5610 | Religion in America | REL | Religion | 3 | Historical exploration of the variety of forms of religious expression in American and the role of religion in American life. | GR | LE | Lecture |</p>
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Credits</th>
<th>Title</th>
<th>Department</th>
<th>Corequisites</th>
<th>Type</th>
<th>Component</th>
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<tr>
<td>BIO4700L</td>
<td>4700L</td>
<td>General Entomology Lab</td>
<td>BIO</td>
<td>Biology</td>
<td>Required</td>
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<td>EES6150</td>
<td>6150</td>
<td>Global Change for Tchers</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>Lecture</td>
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<tr>
<td>LEP0645</td>
<td>0645</td>
<td>Intern &amp; High Intern Integrated</td>
<td>LEP</td>
<td>LEAP</td>
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<td>Laboratory</td>
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<tr>
<td>CHM2120</td>
<td>2120</td>
<td>Organic Chemistry II</td>
<td>CHM</td>
<td>Principles, theories, and applications of the chemistry of carbon compounds.</td>
<td>Lecture</td>
<td>Lab</td>
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<tr>
<td>EES6540</td>
<td>6540</td>
<td>Subsurface Fluid Flow</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>Lecture</td>
<td>Lab</td>
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<tr>
<td>AFS4030</td>
<td>4030</td>
<td>History of Ideas of Race</td>
<td>AFS</td>
<td>Afr / Afr Amer Studies</td>
<td>3</td>
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<tr>
<td>SAA7530</td>
<td>7530</td>
<td>Stress Management &amp; Resilience</td>
<td>SAA</td>
<td>Student Affairs in Higher Ed</td>
<td>3</td>
<td>Lecture</td>
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<tr>
<td>HST7210</td>
<td>7210</td>
<td>Seminar Medieval History</td>
<td>HST</td>
<td>History</td>
<td>3</td>
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<tr>
<td>GR5510</td>
<td>5510</td>
<td>Readings in Greek Drama</td>
<td>GR</td>
<td>Greek</td>
<td>3</td>
<td>Lecture</td>
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<tr>
<td>MUS4520</td>
<td>4520</td>
<td>Piano Literature II</td>
<td>MUS</td>
<td>Music</td>
<td>3</td>
<td>Lecture</td>
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<tr>
<td>PLS4330</td>
<td>4330</td>
<td>Public Opinion</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Lecture</td>
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<tr>
<td>REL5640</td>
<td>5640</td>
<td>Religion &amp; Pol in Amer</td>
<td>REL</td>
<td>Religion</td>
<td>3</td>
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<tr>
<td>WGS3800</td>
<td>3800</td>
<td>Selected Subjects</td>
<td>WGS</td>
<td>Women, Gender, and Sexuality</td>
<td>3</td>
<td>Lecture</td>
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<tr>
<td>REL5940</td>
<td>5940</td>
<td>Existentialism</td>
<td>REL</td>
<td>Religion</td>
<td>3</td>
<td>Lecture</td>
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<tr>
<td>ED7620</td>
<td>7620</td>
<td>Literacy Inquiry Project</td>
<td>ED</td>
<td>Education</td>
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<tr>
<td>PSY3210</td>
<td>3210</td>
<td>Cognition and Learning</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
<td>Lecture</td>
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<tr>
<td>EGR7920</td>
<td>7920</td>
<td>MEIE Team Project</td>
<td>EGR</td>
<td>Engineering</td>
<td>3</td>
<td>Lecture</td>
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<tr>
<td>ED7480</td>
<td>7480</td>
<td>Reading Recovery II</td>
<td>ED</td>
<td>Education</td>
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<td>NUR2200</td>
<td>2200</td>
<td>Nursing Fundamentals</td>
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<td>Nursing</td>
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<tr>
<td>SCM7870</td>
<td>7870</td>
<td>SC Prj Mgt &amp; Transform</td>
<td>SCM</td>
<td>Supply Chain Management</td>
<td>3</td>
<td>Seminar</td>
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<tr>
<td>REL5100</td>
<td>5100</td>
<td>Topics in Judaism</td>
<td>REL</td>
<td>Religion</td>
<td>3</td>
<td>Lecture</td>
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<td>Fall 2022</td>
<td>ED7120</td>
<td>7120</td>
<td>Lit Instr Div Learners</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>ED7400</td>
<td>7400</td>
<td>MST Project Development</td>
<td>ED</td>
<td>Education</td>
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<td>Fall 2022</td>
<td>MIL1022</td>
<td>1022</td>
<td>Intro Tact Leadership Lab</td>
<td>MIL</td>
<td>Military Science</td>
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<td>Fall 2022</td>
<td>EES6300</td>
<td>6300</td>
<td>Environ Apps of GIS</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
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<td>Fall 2022</td>
<td>MP1800</td>
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<td>Motion Pictures Prod I</td>
<td>MP</td>
<td>Motion Picture</td>
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<td>Fall 2022</td>
<td>PSY9065</td>
<td>9065</td>
<td>Measurement Models</td>
<td>PSY</td>
<td>Psychology</td>
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<td>Fall 2022</td>
<td>EC4820</td>
<td>4820</td>
<td>Independent Reading</td>
<td>EC</td>
<td>Economics</td>
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<td>Fall 2022</td>
<td>PHL3090</td>
<td>3090</td>
<td>Existentialism</td>
<td>PHL</td>
<td>Philosophy</td>
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<td>Fall 2022</td>
<td>CHM4680</td>
<td>4680</td>
<td>Experimental Nanoscience</td>
<td>CHM</td>
<td>Chemistry</td>
<td>3</td>
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<td>Fall 2022</td>
<td>NUR210OL</td>
<td>2100L</td>
<td>Hlt Pro &amp; Assess Adults Lab</td>
<td>NUR</td>
<td>Nursing</td>
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<td>Fall 2022</td>
<td>EDT7990</td>
<td>7990</td>
<td>Exit Seminar Lib Media</td>
<td>EDT</td>
<td>Educational Technology</td>
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<tr>
<td>Fall 2022</td>
<td>PLS4540</td>
<td>4540</td>
<td>Politics of Middle East</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
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<td>Fall 2022</td>
<td>TH3340</td>
<td>3340</td>
<td>Costume Construction</td>
<td>TH</td>
<td>Theatre</td>
<td>3</td>
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<td>Fall 2022</td>
<td>NUR4801</td>
<td>4801</td>
<td>Nur Role for Unlicensed</td>
<td>NUR</td>
<td>Nursing</td>
<td>3</td>
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<td>Fall 2022</td>
<td>PPH2300</td>
<td>2300</td>
<td>Community Health Improvement</td>
<td>PPH</td>
<td>Population &amp; Public Health</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>AES1990</td>
<td>1990</td>
<td>Independent Study</td>
<td>AES</td>
<td>Aerospace Studies</td>
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<td>Fall 2022</td>
<td>PSI8450</td>
<td>8450</td>
<td>Chemical Dependency</td>
<td>PSI</td>
<td>Professional Psychology</td>
<td>3</td>
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<td>Fall 2022</td>
<td>GER4260</td>
<td>4260</td>
<td>19th Century German Drama</td>
<td>GER</td>
<td>German</td>
<td>3</td>
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<tr>
<td>Fall 2022</td>
<td>CEG4110</td>
<td>4110 Intro to Software EGR</td>
<td>CEG Computer Engineering</td>
<td>3 Introduction to the concepts of Software Engineering. Software qualities, development life-cycle models, requirements analysis, semi-formal and formal systems modeling, system design, testing, and project management techniques. Case studies and a course project serve as examples illustrating the software engineering process. Integrated Writing course.</td>
<td>UG LE Lecture</td>
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<tr>
<td>Fall 2022</td>
<td>STT5610</td>
<td>5610 Applied Statistics II</td>
<td>STT Statistics</td>
<td>3 Introduces statistics, standard statistical methods for estimation of parameters and hypothesis testing, regression analysis and analysis of variance techniques, and exposure to data analysis using packaged computer programs. Department Managed Prerequisite(s): Graduate level STT 5500 Minimum Grade of D</td>
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<tr>
<td>Fall 2022</td>
<td>GER4030</td>
<td>4030 Adv Studies: Lang &amp; Civ</td>
<td>GER German</td>
<td>3 Advanced course on German or German-American literature, culture or film. Topics vary. Taught in German. Department Managed Prerequisite(s): Undergraduate level GER 3110 Minimum Grade of D and (Undergraduate level GER 3210 Minimum Grade of D or Undergraduate level GER 3250 Minimum Grade of D)</td>
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<tr>
<td>Fall 2022</td>
<td>CNL7800</td>
<td>7800 Sys Tech in Mar &amp; Fam</td>
<td>CNL Counseling</td>
<td>2 This course focuses on teaching systemic interventions and problem solving in the process of resolving marriage and family related concerns.</td>
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<tr>
<td>Fall 2022</td>
<td>BME4421</td>
<td>4421 Biotransport</td>
<td>BME Biomedical Engineering</td>
<td>3 Behavior of fluids as encountered in everyday life, general engineering and biomedical engineering applications. Properties of body fluids, solute mass transport in biological systems, fluid mechanics of blood and other fluids, oxygen mass transport.</td>
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<tr>
<td>Fall 2022</td>
<td>CTE7300</td>
<td>7300 Research in CTE</td>
<td>CTE Career and Technical Education</td>
<td>3 Review of current and historical research articles, research writing and APA style. Candidates will develop and complete a masters inquiry project that will impact teaching, and undergo an exit exam.</td>
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<tr>
<td>Fall 2022</td>
<td>MUS1350</td>
<td>1350 Guitar Pedagogy</td>
<td>MUS Music</td>
<td>1 The study of materials, equipment, and class instruction on guitar for the elementary teacher.</td>
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</tr>
<tr>
<td>Fall 2022</td>
<td>CS5100</td>
<td>5100 Data Struc &amp; Algorithms</td>
<td>CS Computer Science</td>
<td>3 Study of the implementation of data structures and control structures in professional computer programs. Introduction to the fundamentals of complexity and analysis. Study of common standard problems and solutions (e.g., transitive closure and critical path). Emphasis on high-level language software design. Department Managed Prerequisite(s): Undergraduate level CS 1181 Minimum Grade of D and Undergraduate level MTH 2570 Minimum Grade of D</td>
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<tr>
<td>Fall 2022</td>
<td>REL4970</td>
<td>4970 Senior Project</td>
<td>REL Religion</td>
<td>3 Guided research culminating in a major paper on a topic chosen by the student and the instructor. Students develop a comprehensive bibliography, prepare a detailed outline, and write and revise the final project. May be completed for Honors.</td>
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<tr>
<td>Fall 2022</td>
<td>WGS7200</td>
<td>7200 Seminar Select Subj</td>
<td>WGS Women, Gender, and Sexuality</td>
<td>3 Explores problems, approaches, and topics in feminist studies, and is intended to provide intensive examination of intersecting issues of race, class, gender, and sexuality within a range of sociopolitical, cultural, and historical contexts. Titles and topics vary.</td>
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<tr>
<td>Fall 2022</td>
<td>SPN6310</td>
<td>6310 Sem in Spanish Lit</td>
<td>SPN Spanish</td>
<td>3 Intensive study of selected topics in peninsular literature. Background lectures, oral reports, and discussions. Titles vary.</td>
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<tr>
<td>Fall 2022</td>
<td>CHM7000</td>
<td>7000 Prin Instruction Chem</td>
<td>CHM Chemistry</td>
<td>1 Survey of available instructional materials and discussion of educational theory and techniques leading to more effective instruction. For chemistry majors only.</td>
<td></td>
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</tr>
<tr>
<td>Fall 2022</td>
<td>COM2460</td>
<td>2460 Organizational Comm</td>
<td>COM Communication</td>
<td>3 Nature and functions of communication in the organizational setting. Concepts and methods needed to assess and improve communication in organizations.</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>PLS4390</td>
<td>4390 Bioethics and Law</td>
<td>PLS Political Science</td>
<td>3 Legal implications of new biological technologies, particularly mind and behavior control, genetic engineering, birth and death control, and organ transplantation.</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>BIO6020</td>
<td>6020 Current Lit in Biology</td>
<td>BIO Biology</td>
<td>3 Writing intensive course using current research articles to develop critical thinking skills designed for advanced undergraduates or graduate students. Four different sections emphasize broad areas of biology.</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>MLB4720</td>
<td>4720 Adv Diagnostic Micro</td>
<td>MLB Medical Laboratory Science</td>
<td>2 Characteristics, pathophysiology mechanisms and identification of chyamydia, fungi, viruses and other organisms and the methods used to diagnose and treat related diseases.</td>
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<tr>
<td>Fall 2022</td>
<td>KNH1990</td>
<td>1990 BIPE Student Assistant</td>
<td>KNH Kinesiology &amp; Health</td>
<td>2 Advanced level of skills and knowledge in one particular activity. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>EE7200</td>
<td>7200 Modern Control II</td>
<td>EE Electrical Engineering</td>
<td>3 Analysis and design of digital control systems using the state approach, multirate digital control systems, and digital state observer and microprocessor control. Department Managed Prerequisite(s): Graduate level EE 7020 Minimum Grade of D</td>
<td></td>
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<tr>
<td>Fall 2022</td>
<td>GEO4000</td>
<td>4000 Climate Meteorology</td>
<td>GEO Geography</td>
<td>3 Clouds, humidity, precipitation, winds, fronts, forecasting, and climate examination. Emphasis on complex processes creating severe weather and climate change.</td>
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<tr>
<td>Fall 2022</td>
<td>NUR2100</td>
<td>2100 Hilp Pro &amp; Assess Adults</td>
<td>NUR Nursing</td>
<td>3 Incorporates self-directed activities to promote maximum health in self and others. Development of a systematic approach to obtaining a complete health history and performing physical assessment to determine health and illness in adults. 2 cr. Didactic; 1 cr. Assessment lab (2 hrs per week)</td>
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<tr>
<td>Fall 2022</td>
<td>WGS4700</td>
<td>4700 Feminist Research Method</td>
<td>WGS Women, Gender, and Sexuality</td>
<td>3 Examines feminist methodologies and methods of research with emphasis on qualitative inquiry and/or mixed methods. Students with credit for WMS 4790 cannot receive credit for WGS 4700.</td>
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<td>Course Code</td>
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<td>Description</td>
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<td>EES7000</td>
<td>Internship in IS</td>
<td>0.5</td>
<td>Individual studies in advanced engineering topics. Titles vary.</td>
<td>Independent Study</td>
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<tr>
<td>ME3610</td>
<td>Mech Test &amp; Metal Lab</td>
<td>2</td>
<td>This course covers the experimental methods necessary to perform mechanical testing and metallographic analysis, and the relationships between the microstructure, processing, and mechanical properties of materials.</td>
<td>LL Lab</td>
<td></td>
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<tr>
<td>EE7900</td>
<td>Independent Study in EE</td>
<td>1</td>
<td>Individual studies in advanced engineering topics. Titles vary.</td>
<td>Independent Study</td>
<td></td>
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<tr>
<td>PSY4630</td>
<td>Human Error Capstone</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge on human error. Integrated Writing course.</td>
<td>Seminar</td>
<td></td>
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<tr>
<td>ASM7370</td>
<td>Aerospace Toxicology</td>
<td>3</td>
<td>Aerospace Toxicology is a required course as suggested by the American Board of Preventive Medicine in the specialty training area of Aerospace Medicine. It is designed to integrate fundamental aspects and theory of toxicological principles with current operational Aerospace Medicine issues encountered by today's Flight Surgeons.</td>
<td>Seminar</td>
<td></td>
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<tr>
<td>PHIL4110</td>
<td>Ethica Seminar</td>
<td>3</td>
<td>Ethical problems, theories, and methods. Topics vary. Integrated Writing course.</td>
<td>Seminar</td>
<td></td>
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<tr>
<td>EES4280</td>
<td>EES Colloquium</td>
<td>0.5</td>
<td>Weekly seminar in which research scientists from within and from outside the Department of Earth and Environmental Sciences present their research.</td>
<td>Seminar</td>
<td></td>
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<tr>
<td>PLS4910</td>
<td>Independent Research</td>
<td>1</td>
<td>Supervised individual research on selected topics. Minimum 3.0 grade point average. Integrated Writing course.</td>
<td>Independent Study</td>
<td></td>
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<tr>
<td>CEG5320L</td>
<td>Digital System Design Lab</td>
<td>5320L</td>
<td>Required laboratory for CEG 5320.</td>
<td>Lab</td>
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<tr>
<td>EGR2940</td>
<td>Internship in IS</td>
<td>2940</td>
<td>First internship course. Students are supervised via weekly seminars and regular feedback from employers.</td>
<td>Internship</td>
<td></td>
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<tr>
<td>MIS4810</td>
<td>Internship in IS</td>
<td>4810</td>
<td>Faculty-supervised internship in information systems. Students work on an information systems project in a firm or public agency and submit reports for completion of the course.</td>
<td>Practicum</td>
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<tr>
<td>PLS4210</td>
<td>Political Science</td>
<td>4210</td>
<td>The creation of the US Constitution and the ongoing struggle in American legal politics over its basic meaning.</td>
<td>Lecture</td>
<td></td>
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<tr>
<td>IT2320</td>
<td>Publication Design</td>
<td>2320</td>
<td>Introduces current print media environment and unique challenges encountered with communication when designing for books, magazines, newspapers, promotional literature, and other types of print publications.</td>
<td>LL Lab</td>
<td></td>
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<tr>
<td>BMS7410</td>
<td>Struc Concept Org Chem</td>
<td>7410</td>
<td>Study of molecular orbital theory, reactive species, theories of acids and bases, and an introduction to stereochemistry.</td>
<td>Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>REL1010</td>
<td>Intro to World Religions</td>
<td>1010</td>
<td>Introduction to the beliefs and practices of the major religions of the world, including, but not limited to, Judaism, Christianity, Islam, Hinduism, Buddhism, and East Asian religions.</td>
<td>Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IHE6830</td>
<td>IHE &amp; Hum Fac Engr</td>
<td>6830</td>
<td>Introduction to the philosophy and practice of project management. Focus on an integrated approach to plan, control, and execute programs and projects. Introduces key concepts critical to effective project management, from initiation to closing actions and from qualitative to quantitative issues. Emphasis throughout the course on both the project management process and its tools. Provides sufficient background knowledge and basic tools to confidently manage a project or contribute effectively as a project team member. Introduces the PMBOK and the concept of Project Management Professional (PMP) certification.</td>
<td>Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>NUR7105</td>
<td>Pop Hlth</td>
<td>7105</td>
<td>This course synthesizes methods of population assessment and planning to construct population-appropriate interventions for health care delivery systems. The focus is on safe, quality, and culturally-appropriate advanced nurse practice activities to meet emerging world needs.</td>
<td>Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>URS4900</td>
<td>Special Topics</td>
<td>4900</td>
<td>Advanced study in selected topics in urban studies. Topics may include new developments in methodology or the various subfields of the discipline.</td>
<td>Lecture</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ANT5120L</td>
<td>Human ANT &amp; Phys II Lab</td>
<td>5120L</td>
<td>Required Laboratory for ANT 5120. Laboratory exercises use human donors.</td>
<td>Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Course Code</td>
<td>Course Title</td>
<td>Credits</td>
<td>Description</td>
<td>Semester</td>
<td>Division</td>
<td>Type</td>
</tr>
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<tr>
<td>BIO4450</td>
<td>Amazon Expedition</td>
<td>4</td>
<td>Classroom instruction followed by travel to Peruvian Amazon, viewing primary and secondary rainforest, tropical rivers, and wildlife.</td>
<td>Fall 2022</td>
<td>UG</td>
<td>Lecture</td>
</tr>
<tr>
<td>POR1110</td>
<td>Essentials of Portuguese</td>
<td>3</td>
<td>Introduction to Portuguese with an emphasis on speaking the language.</td>
<td>Fall 2022</td>
<td>UG</td>
<td>Lecture</td>
</tr>
<tr>
<td>CS4990</td>
<td>Undergraduate Thesis</td>
<td>3</td>
<td>Completion of a computer science research project. Writing and defending a thesis that describes the research and summarizes the results. Department Managed Prerequisite(s): Graduate level CS 4670 Minimum Grade of D.</td>
<td>Fall 2022</td>
<td>UG</td>
<td>IS</td>
</tr>
<tr>
<td>CS4370</td>
<td>Par Prop Many Core GPUs</td>
<td>3</td>
<td>This course will introduce an important trend in high-performance computing, the use of many-core graphics processing units (GPUs) to solve computation-intensive problems. Students will learn about new many-core GPU architecture, CUDA programming model, memory hierarchy design, parallel programming concepts, and compiling techniques to improve parallelism.</td>
<td>Fall 2022</td>
<td>UG</td>
<td>Lecture</td>
</tr>
<tr>
<td>CS4370</td>
<td>Intro to Egr Lubrication</td>
<td>3</td>
<td>Define various lubrication regimes where mechanical elements in automotive, aerospace, heavy machinery, wind turbine applications operate; introduce surface topography metrics &amp; parameters; describe lubricant properties including viscosity &amp; density dependences on pressure as well as temperature, non- Newtonian behavior, derive Reynolds equation; solve governing equations for elasto- &amp; hydrodynamic lubrication; introduce egr approaches for lubrication performance assessment in machine elements. Department Managed Prerequisite(s): Graduate level ME 5350 Minimum Grade of D and Undergraduate level MTH 2350 Minimum Grade of D.</td>
<td>Fall 2022</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>CS4370</td>
<td>ME6190 Intro to Egr Lubrication</td>
<td>3</td>
<td>Define various lubrication regimes where mechanical elements in automotive, aerospace, heavy machinery, wind turbine applications operate; introduce surface topography metrics &amp; parameters; describe lubricant properties including viscosity &amp; density dependences on pressure as well as temperature, non- Newtonian behavior, derive Reynolds equation; solve governing equations for elasto- &amp; hydrodynamic lubrication; introduce egr approaches for lubrication performance assessment in machine elements. Department Managed Prerequisite(s): Graduate level ME 5350 Minimum Grade of D and Undergraduate level MTH 2350 Minimum Grade of D.</td>
<td>Fall 2022</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>EE3200</td>
<td>Soc Stud Methods P-5</td>
<td>3</td>
<td>Principles, resources, technology, critical thinking skills, and social science research for P-5 social studies, as well as the teaching of U.S. and Ohio history.</td>
<td>Fall 2022</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>FR6420</td>
<td>17th &amp; 20th Cent Theatre</td>
<td>3</td>
<td>Themes of destiny and divinity in 17th and 20th century French drama. Analysis of plays and their socio-historical context. Playwrites such as Corneille, Racine, Molière, Giraudoux, Sarthe, Beckett, and Ionesco. Taught in French. Department Managed Prerequisite(s): Graduate level FR 5110 Minimum Grade of D or Graduate level FR 5120 Minimum Grade of D.</td>
<td>Fall 2022</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>ME6190</td>
<td>Intro to Egr Lubrication</td>
<td>3</td>
<td>Define various lubrication regimes where mechanical elements in automotive, aerospace, heavy machinery, wind turbine applications operate; introduce surface topography metrics &amp; parameters; describe lubricant properties including viscosity &amp; density dependences on pressure as well as temperature, non- Newtonian behavior, derive Reynolds equation; solve governing equations for elasto- &amp; hydrodynamic lubrication; introduce egr approaches for lubrication performance assessment in machine elements. Department Managed Prerequisite(s): Graduate level ME 5350 Minimum Grade of D and Undergraduate level MTH 2350 Minimum Grade of D.</td>
<td>Fall 2022</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>MIS7500</td>
<td>Business Process Mgmt</td>
<td>3</td>
<td>This course provides a comprehensive approach for transforming business processes of an organization. It will demonstrate how to keep renewed processes working at optimum levels through process ownership and performance management. This course has a fee that is non-refundable once the term begins.</td>
<td>Fall 2022</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>SW6020</td>
<td>Social Gerontology I</td>
<td>3</td>
<td>Study of the social aspects of aging, the needs of the aging population, and society’s response to those needs. A life course perspective that incorporates cultural, economic, historical and structural contexts provides the framework for examining aging-related issues, particularly in regards to the impact on quality of life for older adults.</td>
<td>Fall 2022</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>ECO5520</td>
<td>Entrepreneurs hip Basics</td>
<td>2</td>
<td>K-12 teachers are provided with a basic foundation to teach entrepreneurship; it is designed for teachers with minimal requisite knowledge of economics, business and entrepreneurship. Topics include business plans, investing, picking the right business and others. This course has a fee that is non-refundable once the term begins.</td>
<td>Fall 2022</td>
<td>GR</td>
<td>LE</td>
</tr>
<tr>
<td>SOC4610</td>
<td>Gender and Crime</td>
<td>3</td>
<td>Examines how crime and the criminal justice system are shaped by gendered social forces. Specifically addresses how these forces affect crime-related constituencies including perpetrators, workers, victims/survivors, and society as a whole.</td>
<td>Fall 2022</td>
<td>UG</td>
<td>LE</td>
</tr>
<tr>
<td>EGR9800R</td>
<td>Special Topics in EGR Rec</td>
<td>0</td>
<td>Required recitation for EGR 3980.</td>
<td>Fall 2022</td>
<td>UG</td>
<td>RE</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CEG2170L</td>
<td>2170L</td>
<td>Intro to C Prog for S&amp;E Lab</td>
<td>CEG</td>
<td>Computer Engineering</td>
<td>0</td>
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<tr>
<td>Fall 2022</td>
<td>GEO4900</td>
<td>4900</td>
<td>Honors Project in Geo</td>
<td>GEO</td>
<td>Geography</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GER4310</td>
<td>4310</td>
<td>20th Cent German Prose</td>
<td>GER</td>
<td>German</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN4500</td>
<td>4500</td>
<td>Senior Honors Project</td>
<td>SPN</td>
<td>Spanish</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUS3260</td>
<td>3260</td>
<td>Orchestral Conducting</td>
<td>MUS</td>
<td>Music</td>
<td>2</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GEO4950</td>
<td>4950</td>
<td>Geography Internship</td>
<td>GEO</td>
<td>Geography</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SOC6410</td>
<td>6410</td>
<td>Application of Methods</td>
<td>SOC</td>
<td>Sociology</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4010</td>
<td>4010</td>
<td>Dev &amp; Con Am Civ Lib</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>GEO6200</td>
<td>6200</td>
<td>Remote Sensing</td>
<td>GEO</td>
<td>Geography</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATR3020</td>
<td>3020</td>
<td>Strength &amp; Conditioning</td>
<td>ATR</td>
<td>Athletic Training</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>URS4270</td>
<td>4270</td>
<td>Public Policy Analysis</td>
<td>URS</td>
<td>Urban Affairs</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EE7360</td>
<td>7360</td>
<td>Adv Wireless Comm Tech</td>
<td>EE</td>
<td>Electrical Engineering</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>RUS1020</td>
<td>1020</td>
<td>Beginning Russian</td>
<td>RUS</td>
<td>Russian</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SW2910</td>
<td>2910</td>
<td>Data Analysis</td>
<td>SW</td>
<td>Social Work</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PPH2000</td>
<td>2000</td>
<td>Global Health</td>
<td>PPH</td>
<td>Population &amp; Public Health</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BME2940</td>
<td>2940</td>
<td>Biomd Egr Intmsht 2d Yr</td>
<td>BME</td>
<td>Biomedical Engineering</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CHM4210</td>
<td>4210</td>
<td>Inorganic Chemistry II</td>
<td>CHM</td>
<td>Chemistry</td>
<td>2</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BMB8000</td>
<td>8000</td>
<td>Biochemistry Seminar</td>
<td>BMB</td>
<td>Biochemistry &amp; Molecular Biology</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1740B</td>
<td>1740B</td>
<td>Volleyball</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EC4350</td>
<td>4350</td>
<td>Comparative Capital Inst</td>
<td>EC</td>
<td>Economics</td>
<td>3</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHY1000</td>
<td>1000</td>
<td>Undergrad Phy Seminar I</td>
<td>PHY</td>
<td>Physics</td>
<td>1</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BIO4240</td>
<td>4240 Disease Eco &amp; Evol</td>
<td>BIO</td>
<td>Biology</td>
<td>3</td>
<td>The class will cover topics in mathematical theory on host-pathogen interactions; empirical studies of human, wildlife, insect and plant host interactions; emerging infectious diseases; effects on host behavior; host-parasite co-evolution; multi-host and multi-pathogen systems; and anthropogenic effects on disease. The broader goal of the class is to provide a comprehensive and up-to-date understanding of the causes and consequences of infectious diseases at levels from individual organisms to the globe. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUE6460</td>
<td>6460 Univ Saxophone Quartet</td>
<td>MUE</td>
<td>Music Ensembles</td>
<td>1</td>
<td>Performs saxophone quartet repertoire ranging from classic to jazz to contemporary. Audition required.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>DAN1250</td>
<td>1250 Jazz Dance for Actor II</td>
<td>DAN</td>
<td>Dance</td>
<td>1</td>
<td>Continued exploration of fundamental jazz dance technique to develop potential in creative movement, increase musical awareness, and improve professional audition skills for theatre-related activities. Designed for non-dance majors.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ATH3400</td>
<td>3400 Special Topics Biologica</td>
<td>ATH</td>
<td>Anthropology</td>
<td>3</td>
<td>Surveys of various specialized aspects of biological anthropology.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>LDR7090</td>
<td>7090 Navigating Organizations</td>
<td>LDR</td>
<td>Leadership</td>
<td>3</td>
<td>This course focuses on the theoretical and practical models for understanding organizations, including navigating structures, culture, power dynamics, and organizational change.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED7500</td>
<td>7500 Literacy Assess and Eval</td>
<td>ED</td>
<td>Education</td>
<td>3</td>
<td>Explore various literacy assessments to administer, analyze, and interpret the results of the assessment tools to enhance specific and targeted reading and writing instruction for K-12 learners.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>MUE2490</td>
<td>2490 Chamber Players</td>
<td>MUE</td>
<td>Music Ensembles</td>
<td>1</td>
<td>Exploration of performance repertoire composed expressly for small wind ensemble. Works by such composers as Mozart, Strauss, Dvorak, Beethoven, and Stravinsky. Consent of conductor and student's applied instructor required.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>REL2320</td>
<td>2320 Nonwestern Religions</td>
<td>REL</td>
<td>Religion</td>
<td>3</td>
<td>Introduction to the academic study of major nonwestern religious traditions of the world, examining their historical development, fundamental doctrines and beliefs, practices, institutions, and cultural expressions. Integrated Writing course. Credit will not be given for REL 2320 Nonwestern Religions for students who have already successfully completed CST 2320 Nonwestern Religions.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>BMS9990</td>
<td>9990 Dissertation Research</td>
<td>BMS</td>
<td>Biomedical Sciences</td>
<td>1</td>
<td>Planning and execution of scholarly original research of a quality that is publishable in a refereed, scientific journal. Research must be communicated to the supervisory committee in written form and defended by public, oral examination.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>RHB7200</td>
<td>7200 Case Management</td>
<td>RHB</td>
<td>Rehabilitation</td>
<td>3</td>
<td>Assists students in conducting intake interviews, case recording, facilitation of multidisciplinary teams, writing rehabilitation plans with appropriate justifications and measureable outcomes, and case management skills.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS4820</td>
<td>4820 State Legis/ Internship</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Students work for a state legislator in Columbus, including office work, constituent assistance and research. Requires minimum GPA of 3.0.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KHN1560</td>
<td>1560 Soccer: Indoor</td>
<td>KHN</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Soccer: Indoor. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PLS2510</td>
<td>2510 Comp NW Social Systems</td>
<td>PLS</td>
<td>Political Science</td>
<td>3</td>
<td>Examines political processes as well as social and economic systems in Asia, Africa, Latin America, and the Middle East with special attention to contemporary issues. Titles vary. Credit will not be given for PLS 2510 Comparative Nonwestern Social Systems to students who have already successfully completed CST 2510 Comparative Nonwestern Social Systems. Integrated Writing course.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>SPN3110</td>
<td>3110 Spanish Conversation I</td>
<td>SPN</td>
<td>Spanish</td>
<td>3</td>
<td>Practice in oral use of Spanish emphasizing the culture of the Hispanic world. Undergraduate level SPN 2020 Minimum Grade of D or AP Spanish Language 4 or AP Spanish Literature 4</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ED1010</td>
<td>1010 Teaching Profession</td>
<td>ED</td>
<td>Education</td>
<td>1</td>
<td>Overview of the teaching profession.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EES1990</td>
<td>1990 Directed Studies</td>
<td>EES</td>
<td>Earth &amp; Environmental Sciences</td>
<td>0.5</td>
<td>Course topics designed for undergraduate students at the freshman or sophomore level. May be taken for a letter grade or pass/unsatisfactory.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>EGR6940</td>
<td>6940 Internship</td>
<td>EGR</td>
<td>Engineering</td>
<td>1</td>
<td>Graduate internship</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS4070</td>
<td>4070 Optimization Techniques</td>
<td>CS</td>
<td>Computer Science</td>
<td>3</td>
<td>Algorithms for optimizing real functions of several variables subject to equality and inequality constraints. Convexity properties of functions and sets, linear programming, simplex and interior point methods, integer programming, branch and bound algorithm, transportation problem, necessary and sufficient conditions for nonlinear function optimization, Newton and quasi-Newton methods, Lagrange multiplier conditions, Kuhn-Tucker conditions, dynamic programming.</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>PHY6610</td>
<td>6610 Intro to Quantum Mechanics II</td>
<td>PHY</td>
<td>Physics</td>
<td>3</td>
<td>Introduction to the ideas and methods of the quantum mechanics. Applications to selected one- and three-dimensional problems with emphasis on atomic structure. Analysis of quantum mechanical spin and angular momentum. Continuation of PHY6600</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>KNH1160B</td>
<td>1160B Dance: Latin</td>
<td>KNH</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Dance: Latin. Competency-based approach. Course may accommodate disabled students when appropriate.</td>
</tr>
<tr>
<td>Code</td>
<td>Credits</td>
<td>Title</td>
<td>Instructor</td>
<td>Type</td>
<td>Credits</td>
<td>Notes</td>
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<tr>
<td>TH3160</td>
<td>3</td>
<td>Singing for Actor VI</td>
<td>TH</td>
<td>Theatre</td>
<td>1</td>
<td>Private singing lessons for acting, theatre studies and dance majors only.</td>
</tr>
<tr>
<td>FAS1070</td>
<td>1070</td>
<td>Rural Studies</td>
<td>FAS</td>
<td>Food &amp; Agricultural Systems</td>
<td>3</td>
<td>Principles of society, major social institutions, and social change; emphasizes social, political, and economic changes in rural life, rural organizations, population, and family living.</td>
</tr>
<tr>
<td>ME4182</td>
<td>4182</td>
<td>Metal Additive Manufacturing Proc Sci</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>1.5</td>
<td>Covers the processing science of metal additive manufacturing technologies including the processing-structure-properties relationship.</td>
</tr>
<tr>
<td>NEU4030</td>
<td>4030</td>
<td>Sr Cap Neuro Rev Art</td>
<td>NEU</td>
<td>Neuroscience</td>
<td>2</td>
<td>Senior Neuroscience majors will select a neuroscience topic, critically analyze the scientific literature associated with it, and write a scientific review article on the study of that topic. Integrated Writing course.</td>
</tr>
<tr>
<td>MUS3300L</td>
<td>3300L</td>
<td>Adv Choral Cond Lab I</td>
<td>MUS</td>
<td>Music</td>
<td>1</td>
<td>Builds upon the previously gained conducting experiences and knowledge.</td>
</tr>
<tr>
<td>ME6260L</td>
<td>6260L</td>
<td>Intro Robotics Lab</td>
<td>ME</td>
<td>Mechanical and Materials Engr</td>
<td>1</td>
<td>Laboratory supporting EE 6560. Students will experience hands on learning in lab environment.</td>
</tr>
<tr>
<td>NEU3100</td>
<td>3100</td>
<td>How Nervous Sys Works I</td>
<td>NEU</td>
<td>Neuroscience</td>
<td>4</td>
<td>An in-depth exposure to how the nervous system works at the single neuron and simple circuit level. Passive and active membrane properties, synaptic function, and information processing. Integrated Writing course.</td>
</tr>
<tr>
<td>P&amp;N6100</td>
<td>6100</td>
<td>Human Physiology</td>
<td>P&amp;N</td>
<td>Physiology &amp; Neuroscience</td>
<td>4</td>
<td>An overview of human/mammalian organ physiology. Fundamental mechanisms and the experimental basis for current understanding is emphasized. Prerequisite: Introductory biology, chemistry, physics, or permission of instructor.</td>
</tr>
<tr>
<td>PHY6510</td>
<td>6510</td>
<td>Electricity &amp; Magnetism</td>
<td>PHY</td>
<td>Physics</td>
<td>3</td>
<td>Fundamental laws of electricity and magnetism presented from the viewpoint of field theory. Maxwell's equations, transient and steady state currents, electric and magnetic properties of matter, and electromagnetic radiation.</td>
</tr>
<tr>
<td>BIO3130</td>
<td>3130</td>
<td>Plant Biology</td>
<td>BIO</td>
<td>Biology</td>
<td>5</td>
<td>Overview of plant biology, including algae, fungi, mosses and vascular plants. Basic plant structure and metabolism. Taxonomy of plants and representative plant families. Labs include demonstrations, experimental manipulations of plants, aspects of structure and function, and outdoor labs.</td>
</tr>
<tr>
<td>PSY6740</td>
<td>6740</td>
<td>Space and Time Capstone</td>
<td>PSY</td>
<td>Psychology</td>
<td>3</td>
<td>Communication-intensive seminar integrating knowledge on space and time.</td>
</tr>
<tr>
<td>TH2540</td>
<td>2540</td>
<td>Speech I</td>
<td>TH</td>
<td>Theatre</td>
<td>2</td>
<td>Techniques in voice and speech to strengthen and expand the student's instrument and skills.</td>
</tr>
<tr>
<td>MIS3250</td>
<td>3250</td>
<td>Analysis Design Info Sys</td>
<td>MIS</td>
<td>Management Information Systems</td>
<td>3</td>
<td>Overview of system analysis and design methodologies. Topics include planning, SDLC, project management overview, data, process and logic modeling techniques. Covers design, implementation, specifications, and testing plans.</td>
</tr>
<tr>
<td>URS7090</td>
<td>7090</td>
<td>MPA Thesis</td>
<td>URS</td>
<td>Urban Affairs</td>
<td>1</td>
<td>Under the supervision of a thesis committee and chair, students select a public administration problem, prepare a proposal detailing the research question, complete the research, write their thesis with full documentation and defend their work before the committee.</td>
</tr>
<tr>
<td>ATH6010</td>
<td>5010</td>
<td>Cultures of Africa</td>
<td>ATH</td>
<td>Anthropology</td>
<td>3</td>
<td>An introduction to the diverse, complex and fascinating peoples of sub-Saharan Africa.</td>
</tr>
<tr>
<td>DAN4330</td>
<td>4330</td>
<td>Pas de Deux Class</td>
<td>DAN</td>
<td>Dance</td>
<td>1</td>
<td>Partnered dance from basic social dance, theatre partnering to contemporary and pointe partnering. Stresses cooperation, trust, and techniques.</td>
</tr>
<tr>
<td>HPR3850</td>
<td>3850</td>
<td>Teaching Elementary PE</td>
<td>HPR</td>
<td>Health Phy Educ &amp; Recreation</td>
<td>3</td>
<td>Applies teaching and management strategies that have been linked to student learning, the design of instructional materials and techniques, and strategies working with a diversity of learners in grades K-5.</td>
</tr>
<tr>
<td>EDS4900</td>
<td>4900</td>
<td>Professional Seminar IS</td>
<td>EDS</td>
<td>Education - Special Education</td>
<td>3</td>
<td>Exploration of the Special Education Professional Practice Standards and ethical responsibilities of intervention specialists in relation to individuals with exceptionalities and their families as well as employment in the profession.</td>
</tr>
<tr>
<td>ED6540</td>
<td>6540</td>
<td>AYA Int Pt II: Std T I LA</td>
<td>ED</td>
<td>Education</td>
<td>8</td>
<td>Candidates, under the direct supervision of an experienced classroom teacher, are assigned to a school for intensive teaching experience in grades 7-12 in Integrated Language Arts.</td>
</tr>
<tr>
<td>PSI8080</td>
<td>8080</td>
<td>Professional Development</td>
<td>PSI</td>
<td>Professional Psychology</td>
<td>1</td>
<td>Issues relevant to students' development as professional psychologists including professional involvement, legal and legislative issues, professional ethics and standards, and relations with other professional groups.</td>
</tr>
<tr>
<td>KNN120B</td>
<td>120B</td>
<td>Canoeing</td>
<td>KNN</td>
<td>Kinesiology &amp; Health</td>
<td>1</td>
<td>Fundamental skills and knowledge of Canoeing. Competency-based approach. Course may accommodate disabled students when appropriate. This course has a fee that is non-refundable once the term begins.</td>
</tr>
<tr>
<td>GER1020</td>
<td>1020</td>
<td>Beginning German II</td>
<td>GER</td>
<td>German</td>
<td>3</td>
<td>Communicative introduction to German structure and vocabulary and to Germanic culture. Practice in speaking, listening, reading, and writing. Department Managed Prerequisite(s): Undergraduate level GER 1010 Minimum Grade of C.&lt;br&gt;</td>
</tr>
<tr>
<td>ATH4030</td>
<td>4030</td>
<td>Urban Anthropology</td>
<td>ATH</td>
<td>Anthropology</td>
<td>3</td>
<td>Explores the nature of the city from an anthropological perspective, confronting basic questions such as the extent to which the urbanite experiences a different kind of culture from his/her rural counterpart and the factors that have contributed to the growth and expansion of urbanism over the last few centuries? Integrated Writing course.</td>
</tr>
<tr>
<td>Course Code</td>
<td>Title</td>
<td>Department</td>
<td>Type</td>
<td>Credits</td>
<td>Description</td>
<td>Restrictions</td>
</tr>
<tr>
<td>-------------</td>
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</tr>
<tr>
<td>RHB8670</td>
<td>Rehab Couns Internship</td>
<td>RHB</td>
<td>Laboratory</td>
<td>1</td>
<td>Opportunity to utilize all skills, techniques, and competencies acquired in previous coursework while delivering rehabilitation counseling services to consumers. The internship experience is determined individually between the student, university supervisor and site supervisor.</td>
<td></td>
</tr>
<tr>
<td>PLS6950</td>
<td>Contemporary Brazil</td>
<td>PLS</td>
<td>Lecture</td>
<td>3</td>
<td>Introduction to Brazilian politics, society and economy. Topics include Brazil's political and economic liberalization, its international relations, gender and race relations, and the environment.</td>
<td></td>
</tr>
<tr>
<td>EE6330L</td>
<td>Microprocess embed Embedded Sys Lab</td>
<td>EE</td>
<td>Lab</td>
<td>0</td>
<td>Required laboratory for EE 6330L. Department Managed Prerequisite(s): Undergraduate level CEG 3320 Minimum Grade of D or Graduate level CEG 5520 Minimum Grade of C.</td>
<td></td>
</tr>
<tr>
<td>MUS3560</td>
<td>Keyboard Musicianship</td>
<td>MUS</td>
<td>Lecture</td>
<td>1</td>
<td>Provides vocal performance education majors with functional and technical keyboard skills.</td>
<td>me</td>
</tr>
<tr>
<td>PSY9860</td>
<td>Consultation</td>
<td>PSI</td>
<td>Lecture</td>
<td>3</td>
<td>Explores consultation as a core competency for the professional psychologist. Consultation is a planned, collaborative interaction that is an explicit intervention process based on principles and procedures found within psychology and related disciplines in which the psychologist does not have direct control of the change process (NCSPP). The course examines consultation in a variety of business and professional settings.</td>
<td></td>
</tr>
<tr>
<td>ISE1990</td>
<td>Independ Stdy in ISE I</td>
<td>ISE</td>
<td>Lab</td>
<td>1</td>
<td>Undergraduate independent studies in Industrial and System Engineering. Topics vary.</td>
<td>me</td>
</tr>
<tr>
<td>PSY4540</td>
<td>Human Sexuality Capstone</td>
<td>PSY</td>
<td>Lecture</td>
<td>3</td>
<td>This course will expand the breadth and depth of your knowledge on human sexuality. We will focus on normal, atypical, and pathological elements of human sexuality and sexual behavior through reading and critically analyzing primary research, thoughtful reflection, and collegial discussion. Integrated Writing course.</td>
<td>me</td>
</tr>
<tr>
<td>PSY4280</td>
<td>Psych Game Theory Cap</td>
<td>PSY</td>
<td>Lecture</td>
<td>3</td>
<td>Game theory studies strategic reasoning and decision-making in business, diplomacy, and personal life. A game is defined as an interaction between two or more players. Game theorists are interested in what strategies players choose, what they know about one another, what their motives are, etc. Integrated Writing course.</td>
<td>me</td>
</tr>
<tr>
<td>SCM3330</td>
<td>Planning for SCM</td>
<td>SCM</td>
<td>Lab</td>
<td>3</td>
<td>Planning and control of productive activities in supply chains; planning of inventories and production quantities. Management of physical and information flows and control information systems.</td>
<td>me</td>
</tr>
<tr>
<td>ART3670</td>
<td>Beg Printmg: Intaglio</td>
<td>ART</td>
<td>Lab</td>
<td>3</td>
<td>Exploration of printmaking stressing intaglio methods: etching, engraving, drypoint, aquatint, and liftgrounds. Use of black-and-white techniques and introduction to color printing. This course has a fee that is non-refundable once the term begins. Department Managed Prerequisite(s): Undergraduate level ART 2280 Minimum Grade of D and Undergraduate level ART 2090 Minimum Grade of D.</td>
<td>me</td>
</tr>
<tr>
<td>SOC2210</td>
<td>Explore Social Problems</td>
<td>SOC</td>
<td>Lecture</td>
<td>3</td>
<td>Focuses on specific social problems. Topics vary.</td>
<td>me</td>
</tr>
<tr>
<td>MUE4490</td>
<td>Chamber Players</td>
<td>MUE</td>
<td>Lab</td>
<td>1</td>
<td>Exploration and performance of compositions for small wind ensemble (usually 8 to 16 players). Typical repertoire may include works by Gabrieli, Mozart, Beethoven, Schubert, Dvorak, Strauss, or others. The ensemble functions according to a player pool concept, utilizing instrumental forces as needed for various works. Audition and instructor permission required.</td>
<td>me</td>
</tr>
<tr>
<td>ATR4820</td>
<td>Pharmacology for AT</td>
<td>ATR</td>
<td>Lecture</td>
<td>4</td>
<td>Pharmacological information that pertains to the care of the physically active.</td>
<td>me</td>
</tr>
<tr>
<td>EES3460</td>
<td>Concept Earth Sci II Educators</td>
<td>EES</td>
<td>Lecture</td>
<td>4</td>
<td>Processes that impact the Earth system such as volcanic eruptions, global climate change and ice ages, and the resulting interactions between air, land, water and life in the Earth system.</td>
<td>me</td>
</tr>
<tr>
<td>SPN3610</td>
<td>Spanish Phonology</td>
<td>SPN</td>
<td>Lecture</td>
<td>3</td>
<td>Study of the vowel and consonant sound system of Spanish. Spanish phonetics and intonation. Department Managed Prerequisite(s): Undergraduate level SPN 2020 Minimum Grade of D or Undergraduate level SPN 2120 Minimum Grade of D.</td>
<td>me</td>
</tr>
<tr>
<td>ATR7150</td>
<td>Clinical Practice</td>
<td>ATR</td>
<td>Lecture</td>
<td>2</td>
<td>Clinical experience with a preceptor to practice, apply and master a variety of entry-level skills learned in the previous practice. Evaluation will occur in both the clinical and classroom settings.</td>
<td>me</td>
</tr>
<tr>
<td>NUR7551</td>
<td>Chronic Care for PNPs</td>
<td>NUR</td>
<td>Lecture</td>
<td>6</td>
<td>Application of theoretical frameworks and research findings for health promotion, disease prevention, health maintenance, and health restoration for children and adolescents. The clinical practicum will focus on advanced nursing care, incorporating multi-disciplinary collaboration for the delivery of comprehensive health care in various care settings. Emphasis is on management of pediatric chronic conditions.</td>
<td>me</td>
</tr>
<tr>
<td>SW2710</td>
<td>Intro to Social Welfare</td>
<td>SW</td>
<td>Lecture</td>
<td>3</td>
<td>Study of federal and state social welfare in the United States, with an emphasis on policies that reduce poverty, oppression, and discrimination. Study the values and ethics that form the foundation of social services.</td>
<td>me</td>
</tr>
<tr>
<td>PPH7040</td>
<td>SocialBeh Determinants Health</td>
<td>PPH</td>
<td>Lecture</td>
<td>3</td>
<td>This course addresses the socio-ecological and behavioral theories of health behavior and their application to designing theory-based interventions. Students develop a theory-based logic map for one risk or protective health behavior.</td>
<td>me</td>
</tr>
<tr>
<td>ANT6340</td>
<td>Biological Safety</td>
<td>ANT</td>
<td>Lecture</td>
<td>2</td>
<td>Identification, handling, and containment of potentially hazardous biological materials, including microorganisms and recombinant DNA.</td>
<td>me</td>
</tr>
<tr>
<td>MLB4710</td>
<td>Basic Diagnostic Micro</td>
<td>MLB</td>
<td>Lecture</td>
<td>3</td>
<td>Study of media composition and selection, biochemical techniques used to identify bacteria and related physiology, antibiotic susceptibility of bacteria, and discussion and identification of parasites.</td>
<td>me</td>
</tr>
</tbody>
</table>

**Notes:**
- **RHB:** Rehabilitation
- **PLS:** Political Science
- **EE:** Electrical Engineering
- **MUS:** Music
- **SOC:** Sociology
- **MUE:** Music: Ensembles
- **ART:** Athletic Training
- **EES:** Earth & Environmental Sciences
- **SPN:** Spanish
- **NUR:** Nursing
- **SW:** Social Work
- **PPH:** Population & Public Health
- **ANT:** Anatomy
- **MLB:** Medical Laboratory Science

**Restrictions:**
- **GR:** Graduate
- **IN:** Internship
- **UG:** Undergraduate
- **LE:** Lecture
- **Seminar**
- **Lab**
- **Combinato**

**Term:**
- **Fall 2022**
<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Title</th>
<th>Credits</th>
<th>Description</th>
<th>Grade Options</th>
<th>Term</th>
</tr>
</thead>
<tbody>
<tr>
<td>NUR2200L</td>
<td>Dance Pedagogy</td>
<td>3</td>
<td>Methods for teaching dance using an anatomical approach as the basis for sound training in all techniques.</td>
<td>UG</td>
<td>Fall</td>
</tr>
<tr>
<td>RHB3820</td>
<td>Off-campus experience in cooperating scientific agency or industrial organization. Reports and specific assignments determine in consultation with faculty advisor and supervising professionals. Application required.</td>
<td>3</td>
<td>University of California</td>
<td>UG</td>
<td>Fall</td>
</tr>
<tr>
<td>PN6690</td>
<td>Quant Aspects of Mem Trans</td>
<td>2</td>
<td>Employs a quantitative approach to the properties of solutes, water, bio-electrical phenomena, the properties of transport systems that move solutes across biological membranes, and the interactions of these solutes with membranes. Completion of calculus, cell biology, and cellular physiology and biophysics required. May be taken for letter grade or pass/fail unsatisfactory.</td>
<td>GR LE</td>
<td>Fall</td>
</tr>
<tr>
<td>MGT4800</td>
<td>Special Topics in Mgt</td>
<td>1</td>
<td>Seminar in special topics such as organizational assessment, training and development, and personal career development. Topics vary.</td>
<td>UG SE</td>
<td>Fall</td>
</tr>
<tr>
<td>ENG2710</td>
<td>Multiculturalism focusing on cultural, ethnic, national, racial, and linguistic diversity. Analysis of aspects of diversity and exploration of the unique status of the United States as a country founded on the principle of unity in diversity.</td>
<td>3</td>
<td>University of California</td>
<td>UG</td>
<td>Fall</td>
</tr>
<tr>
<td>LGH8000</td>
<td>Graduate Seminar</td>
<td>1</td>
<td>Seminar on selected advanced topics in mathematics.</td>
<td>GR</td>
<td>Fall</td>
</tr>
<tr>
<td>SOC3600</td>
<td>Social Inequality</td>
<td>3</td>
<td>Structures, theories and consequences of social inequality. This course explores the patterns of inequality, as well as early and contemporary theories of stratification.</td>
<td>UG LE</td>
<td>Fall</td>
</tr>
<tr>
<td>P&amp;N7890</td>
<td>Continuation Registration</td>
<td>1</td>
<td>By permission of instructor.</td>
<td>IS</td>
<td>Fall</td>
</tr>
<tr>
<td>ENG3840</td>
<td>Intro to Dramatic Wrtg</td>
<td>3</td>
<td>Techniques of dramatic writing emphasizing writing of original plays.</td>
<td>UG LE</td>
<td>Fall</td>
</tr>
<tr>
<td>PTX8061</td>
<td>Lean Six Sigma, Black Belt</td>
<td>3</td>
<td>This course is an introduction to the tools and techniques of the lean six sigma philosophy of management that focuses on eliminating defects through practices that emphasize understanding, measuring, and improving processes. The Black Belt course focuses on the advanced analytical tools for process improvement. Topics covered in the Green Belt course will only be explored at a deeper level.</td>
<td>GR LE</td>
<td>Fall</td>
</tr>
<tr>
<td>EES4440</td>
<td>Well Log Analysis</td>
<td>3</td>
<td>Theory, application, and interpretation of geophysical logs emphasizing their use in correlation and determination of porosity, permeability, and fluid content of subsurface formations.</td>
<td>UG LE</td>
<td>Fall</td>
</tr>
<tr>
<td>URS3210</td>
<td>City Politics</td>
<td>3</td>
<td>Overview of urban and metropolitan politics and problems. Examination of how cities and metropolitan areas are governed: the changing structure of local government, the powers afforded localities, opportunities for citizen participation, and possibilities for regional cooperation. Study of key urban service areas: schools, land use and zoning, policing, economic development, urban planning, etc.</td>
<td>UG LE</td>
<td>Fall</td>
</tr>
<tr>
<td>MKT7500</td>
<td>Marketing Res &amp; Analysis</td>
<td>3</td>
<td>Course is aimed at the manager who is in ultimate user of research and who is responsible for determining the scope and direction of research activities. The course will focus on both qualitative and quantitative aspects of marketing research and how managers use the results to address marketing problems.</td>
<td>GR LE</td>
<td>Fall</td>
</tr>
<tr>
<td>BIO6840</td>
<td>Biogeography</td>
<td>3</td>
<td>Introduction to the factors affecting the distribution of plants and animals.</td>
<td>GR LE</td>
<td>Fall</td>
</tr>
<tr>
<td>PLS7981</td>
<td>Strategic Intelligence</td>
<td>3</td>
<td>This course examines the process whereby the president and national security policymakers use strategic intelligence in foreign policy. The process is examined from its historical inception up to contemporary practice.</td>
<td>GR SE</td>
<td>Fall</td>
</tr>
<tr>
<td>RHB3820</td>
<td>Disability Justice</td>
<td>3</td>
<td>Focuses on disability culture, justice, and history, including community access, independent living/self-determination, and inclusion. Examines various disability policy frameworks and applications, person-centered perspectives on delivery of services and supports, and methods of facilitating change.</td>
<td>UG LE</td>
<td>Fall</td>
</tr>
<tr>
<td>BIO4440L</td>
<td>Plant Physiology Laboratory</td>
<td>0</td>
<td>Required laboratory for BIO 4440.</td>
<td>UG LB</td>
<td>Fall</td>
</tr>
<tr>
<td>STT6610</td>
<td>Theory of Statistics I</td>
<td>4</td>
<td>Probability, random variables, density and distribution functions, expectation, moment generating functions, special discrete and continuous distributions; joint, marginal and conditional distributions; independence, properties of expected values, functions of random variables, order statistics, transformations, limiting distributions, convergence in distribution, central limit theorem, statistics and sampling distributions. <em>b Department Managed Prerequisite(s): Undergraduate level MTH 2350 Minimum Grade of D</em>b.</td>
<td>GR LE</td>
<td>Fall</td>
</tr>
<tr>
<td>PSI9990</td>
<td>Internship</td>
<td>1</td>
<td>Capstone clinical experience for the Psy.D. degree, completed under supervision by a licensed psychologist.</td>
<td>GR IN</td>
<td>Fall</td>
</tr>
<tr>
<td>ME4080</td>
<td>Design Optimization</td>
<td>3</td>
<td>Concepts of minima and maxima: linear, dynamic, integer, and nonlinear programming: variational methods. Engineering applications are emphasized. <em>b Department Managed Prerequisite(s): Undergraduate level MTH 2350 Minimum Grade of D or Undergraduate level MTH 2530 Minimum Grade of D and Undergraduate level ME 3210 Minimum Grade of D</em>b.</td>
<td>UG LE</td>
<td>Fall</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>CS7720</td>
<td>7720</td>
<td>Advanced Data Mining</td>
<td>CS</td>
<td>Computer Science</td>
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<tr>
<td>Fall 2022</td>
<td>PSY5610</td>
<td>5610</td>
<td>Conditioning &amp; Learning</td>
<td>PSY</td>
<td>Psychology</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ENG1010</td>
<td>1010</td>
<td>Basic Acad Spk Lstn ESL</td>
<td>ENG</td>
<td>English</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>ACC2020</td>
<td>2020</td>
<td>Accounting Principles II</td>
<td>ACC</td>
<td>Accountancy</td>
</tr>
<tr>
<td>Fall 2022</td>
<td>TH2390</td>
<td>2390</td>
<td>Movement I</td>
<td>TH</td>
<td>Theatre</td>
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