






# Ohio State Lima

Course Offerings Bulletin 2026-2027

## Important Dates and Deadlines

*registrar.osu.edu/registration/index.asp*

THE OHIO STATE UNIVERSITY
LIMA

## Accounting and Management Information Systems

**2200 Introduction to Accounting I U 3**

Preparation and use of accounting reports for business entities; focus on uses of accounting for external reporting, emphasizing accounting as a provider of financial information.
Prereq: Econ 2001.01 (200), or equiv. Not open to students with credit for 2000 (310) or 211, or equiv.

**2300 Introduction to Accounting II U 3**

The uses of accounting reports by managers to make business decisions and to control business operations; focus is on the internal use of accounting information.
Prereq: 2200 (211) and Econ 2001.01 (200), or equiv. Not open to students with credit for 2000 (310) or 212, or equiv.

**3300 Cost Accounting U 3**

Managerial decision making in organizations with an emphasis on the use of financial data; theory and practice of management control.
Prereq: 2300 (212), BusMgt 2320 (330), 2321 (331), and BusMHR 2292 (BusAdm 499.01); or permission of instructor. Not open to students with credit for 525.

**3601 Introduction to Information Systems U 1½**

The role of information systems in capturing and distributing organizational knowledge and enhancing management decision making, process of redesigning organizations utilizing systems analysis and design, quality assurance, and change management techniques, technical foundation of information systems, including hardware, software, telecommunications, networks, and the information architecture.Prereq: Admission to BSBA program and Business Management specialization.

## African American and African Studies

**2081 African American History from 1877 U 3**

The study of the African American experience in the United States from the era of Reconstruction through the present, with an emphasis on the intersection of race, gender, ethnicity, religion, and social class.Prereq: Not open to students with credit for History 2081. Cross-listed in History.

## Agricultural Systems Management

**2305 Professional Development I U 2**

Business communications and professional development in agricultural systems management including job search strategies, informative and persuasive writing, academic planning, collaboration, project documentation and reporting, and presentations.Prereq: English 1110. Not open to students with credit for ConSysM 2305.

## American Sign Language

**1101.01 Elementary American Sign Language I U 4**

Students develop elementary ASL skills-receptive (listening) and expressive (speaking). American deaf culture and history introduced with an emphasis on making comparisons and connections to one's own culture. Instruction primarily in ASL. Not open to native users of ASL, or those with EM credit, or to students with 2 or more years of study in high school.Prereq: Not open to students with credit for 1101 or 1101.02.

**1102.01 Elementary American Sign Language II U 4**

Further development of ASL skills. Focus on talking about others. Continued exploration of American deaf culture and history. Instruction primarily in ASL. Not open to native users or ASL.

Prereq: 1101, or 1101.01, or 1101.02. Not open to students with credit for 1102 or 1102.02.

**1103.01 Intermediate American Sign Language U 4**

Advanced development of ASL skills. Focus on talking about community. Continued exploration of American deaf culture and history. Instruction primarily in ASL. Not open to native users of ASL.Prereq: 1102, 1102.01, or 1102.02. Not open to students with credit for 1103, or 1103.02.

## Anatomy

**2300 Human Anatomy U 4**

Regional study of the basic structure and terminology associated with the human body. Laboratory includes demonstrations on prosected human cadavers.Prereq: Not open to students with credit for 2100.xx or 3300.xx.

## Art

**2100 Beginning Drawing U 3**

Students will explore fundamental freehand drawing techniques with a range of drawing methods, media and concepts; emphasis on drawing from observation and expressive experimentation. Students will apply written, oral and visual communication skills as they evaluate, interpret and respond to significant works of art and their own expressive goals.

**2555 Photo 1: Introduction to Digital Photography U 3**

Students will learn fundamental digital camera techniques and explore contemporary and historical issues in photography including the relationships between technique, concept, and aesthetics as well as the relationship between images, identity formation, and larger social structures.Prereq: Not open to students with credit for 3555.

**4998 Undergraduate Research: Non Thesis or Non Distinction U 1 - 3**

Undergraduate research or creative activities in varying topics (non-thesis and non-distinction). Prereq: Permission of instructor. Repeatable to a maximum of 16 cr hrs or 8 completions.

## Art Education

**2550 Introduction to Visual Culture: Seeing and Being Seen U 3**

An introduction to issues of representation, spectacle, surveillance, and voyeurism, explored through a range of visual images and sites.Prereq: Not open to students with credit for 255.

## Arts and Sciences

**2120 Information Search, Evaluation and Use U 2**

This seven-week course will help you develop skills and habits that will allow you to responsibly find, consume, create, and share information online. Among these habits is the creation of a search strategy, critical evaluation of online sources, and the use of copyrighted materials. We hope you leave this course as an intentional, reflective, and critical consumer of information.

**3191.01 For-Credit Internship U 1 - 12**

Internship conducted under the supervision of the employer; grade determined by ASC faculty member. Student must obtain the internship before the start of the term, and a signed learning agreement approved by faculty member and employer by first day. Enrollment in an academic department internship course is not permitted during the same term.
Prereq: GPA 2.50 or above, and Soph standing or above. Repeatable to a maximum of 12 cr hrs or 4 completions. This course is graded S/U.

## Biochemistry

**4511 Introduction to Biological Chemistry U 4**

An introductory course in biochemistry dealing with the molecular basis of structure, metabolism, genetic replication, transcription, and translation in plants, animals, and microorganisms.Prereq: Chem 1220, 1250, 1620, or 1920H, and 2510, 2310, 2610, or 2910H and one semester of Biological Sciences.

## Biology

**1101 Introductory Biology U 4**

Basic principles of biology; topics include the nature of science, organismal diversity, evolution, ecology, genetics, reproduction, and cellular structure and function. Not intended students majoring in one of the biological sciences.Prereq: Not open to students with credit for 1101E, 1113 (113), 1113H (115H), 101, Entmlgy 1101 (101), or MolGen 1101 (PlntBio101).

**1102 Human Biology U 4**

Exploration of human biology; topics include structure and physiological function, reproduction and development, genetics and disease, ecology, and evolution. Not intended for students majoring in one of the biological sciences.
Prereq: Not open to students with credit for 102.

**1113.01 Biological Sciences: Energy Transfer and Development U 4**

Exploration of biology and biological principles; evolution and the origin of life, cellular structure and function, bioenergetics, and genetics. A broad introduction to biology comprises both Biology 1113 and 1114. Prereq: Math 1120, 1130, 1148, 1150, or above, or Math Placement Level L or M. Prereq or concur: Chem 1110, 1208, 1210, 1610, or 1910H, or permission of course coordinator. Not open to students with credit for 1113 or 1113.02.

**1113E Biological Sciences: Energy Transfer and Development U 4**

Exploration of biology and biological principles; evolution and the origin of life, cellular structure and function, bioenergetics, and genetics. A broad introduction to biology comprises both Biology 1113E and 1114E.Prereq: Honors standing; and Math 1149, or 1150 or above, or Math Placement Level L. Prereq or concur: Chem 1208, 1210, 1610, or 1910H, or permission of course coordinator.

**1114.01 Biological Sciences: Form, Function, Diversity, and Ecology U 4**

Exploration of biology and biological principles; evolution and speciation, diversity in structure, function, behavior, and ecology among prokaryotes and eukaryotes. A broad introduction to biology comprises both Biology 1113 and 1114.Prereq: Math 1120, 1130, 1148, or 1150 or above, or Math Placement Level L or M. Prereq or concur: Chem 1110, 1208, 1210, 1610, or 1910H, or permission of course coordinator. Not open to students with credit for 1114 or 1114.02.

# 2 Biology

**1114E** **Biological Sciences: Form, Function, Diversity, and Ecology** **U** **4**

Exploration of biology and biological principles; evolution and speciation, diversity in structure, function, behavior, and ecology among prokaryotes and eukaryotes. A broad introduction to biology comprises both Biology 1113E and 1114E.Prereq: Honors standing; and Math 1149, 1150, or above, or Math Placement Level L. Prereq or concur: Chem 1208, 1210, 1610, or 1910H, or permission of course coordinator.

**2105** **Human Biology in Cinema** **U** **3**

Human Biology in Cinema will explore biological insights related to human health and well-being through the lens of mainstream films. These biological insights will enhance comprehension and appreciation of films and in turn the films will provide a narrative structure that make the information more accessible and memorable. Films will serve as a starting point for a class discussion each week. High School Biology recommended.Prereq: Soph standing, or permission of instructor. Not open to students with credit for 1105.

**3401** **Integrated Biology** **U** **4**

A case studies approach is used to gain a better understanding of biological concepts and principles. This course is designed for biology majors.Prereq: 1113, 1114, Chem 1220, and Math 1140, or 1148 and 1149, or 1150 or above; or permission of instructor. Not open to students with credit for 3501.xx.

## Business Admin: Finance

**3220** **Business Finance** **U** **3**

Introductory finance class which allows students develop the skills to understand how financial managers make value-maximizing decisions for their firms.Prereq: Econ 2001.01 (200), and 2002.01 (201), and AcctMIS 2200 (211). Prereq or concur: AcctMIS 2300. Not open to students with credit for 620, or to students enrolled in UUSS, UExp or PreBSBA-PR.

**3500** **Legal Environment of Business** **U** **1½**

An introduction to American legal institutions, sources of law, and an analysis of basic concepts of public and private law related to business decisions.
Prereq: Soph standing. Not open to students with credit for 510, or to students enrolled in UUSS, UExp or PreBSBA-PR.

**4200** **Applications in Finance** **U** **3**

Applications in Finance with a discussion of Investment alternatives such as Money Market instruments, Stocks and Bonds and Corporate Finance issues such as Corporate Governance, Cost of Capital and Capital Budgeting.
Prereq: 3220 (620), BusMgt 2320 (330), and 2321 (331). Not open to students with credit for 4210, 4211, 4212 (721), 4220, 4221, or 4222 (722).

## Business Admin: Management & Human Rsrcs

**2000** **Introduction to International Business** **U** **1½**

Basic coverage of world trade and investment problems, and introduction to multinational corporation strategies and the various types of environments in which they do business. Prereq: Econ 2002.01 (201), and Econ 2001.01 (200) or AEDEcon 2001 (200). Not open to students with credit for BusAdm 555. Not open to students enrolled in UUSS, UExp or PreBSBA-PR.

**2292** **Business Skills & Environment** **U** **3**

Introduce the role of business in the lives of individuals, consumers, employees, and citizens. Focus on the concept of ethical leadership with emphasis on both oral and written communication skills for the business environment.Prereq: English 1110.01 or equivalent; and admission to the Business Administration major. Not open to students with credit for 2291. Not open to pre-business students.

**3200** **Managing Individuals in Organizations: Organizational Behavior and Human Resources** **U** **3**

Principles for managing the performance of individuals and groups in organizations; introduction to organizational behavior theory and its application to staffing, training, compensation, and appraisal.Prereq: Econ 2001.01 (200) and 2002.01 (201), or equivalent. Not open to students with credit for 3100 (400) or 701. Not open to students enrolled in UUSS, UExp or PreBSBA-PR.

**4324** **Staffing: Concepts and Competencies for Acquiring Talent** **U** **3**

Introduction to the scientific, legal, and administrative issues associated with the recruitment, hiring, and placement of individuals by organizations.Prereq: 2291 or 2292 (BusAdm 499.01); and 3200 (701), 4323 (653), and AcctMIS 2200 (211), 2300 (212), BusMgt 2320 (330), 2321 (331); or enrollment regional Business Management program. Not open to students with credit for 756.

**4490** **Strategic Management** **U** **3**

Introduction to the concepts and analytic tools in the field of strategic management to understand the competitive position of firms.Prereq: BUSMHR 2000, 2292, 3200, and BUSOBA 2320, 2321, 3230, and BusFIN 3500, 3220, and BusML 3250, 3380, and Sr standing in Business Administration major program. Not open to students in UUSS, UEXP, or PREBSBA-PR.

## Business Admin: Marketing & Logistics

**3250** **Principles of Marketing** **U** **3**

Presents the concepts, framework and tools of market-based management to deliver superior customer satisfaction, value and profitability. The focus of the course is on identifying, creating, delivering and measuring value creation.Prereq: Econ 2001.01 and 2002.01. Not open to students with credit for 3150 (650) or 450 or to students enrolled in UUSS, UExp or PreBSBA-PR.

**3380** **Logistics Management** **U** **1½**

Concepts and methods used to plan and manage logistics activities in a business environment. Understanding of the components of logistics management and tradeoffs required to manage the integrated flow of goods through the supply chain.Prereq: Econ 2001.01, or equiv.; and 2002.01, or equiv. Not open to students enrolled in UUSS, UExp, or PreBSBA-PR.

**4206** **Strategic Marketing Decisions** **U** **3**

A marketing strategy exercise filled with tactical detail. Through a Marketplace simulation, students will be placed into a realistic international business setting where they will operate a marketing division for two years in compressed time through 8-rounds of decision-making.Prereq: 3250, BusOBA 2320, 2321 and BusMHR 2292; and enrollment in the Business Management specialization. Not open to students with credit for 4204.

**4380** **Advanced Logistics Management** **U** **1½**

Advanced coverage of the concepts and methods used to plan and manage logistics activities in a business environment; in-depth understanding of the components of logistics management and tradeoffs required to manage the integrated flow of goods.Prereq: 3380, and AcctMIS 2200, 2300, and BusOBA 2320, 2321; and BusMHR 2291 or 2292.

## Business Admin: Operations and Business Analytics

**2320** **Decision Sciences: Statistical Techniques** **U** **3**

Examination of the use of statistical techniques in managerial decision-making processes; statistical inference, simple and multiple regression, time series.Prereq: Math 1131 or 1151, and Stat 1430, and CSE 1113 or 2111, and Econ 2001.01. Prereq or concur: Econ 2002.01.

**2321** **Business Analytics** **U** **1½**

Examination of the use of business analytic models used in managerial decision making processes. Emphasis on formulation and interpretation of models; supported by spreadsheet based software.Prereq: Math 1131 or 1151 or equiv., and CSE 1113 or 2111, and Econ 2001.01 or equiv., and Econ 2002.01 or equiv.

**3230** **Introduction to Operations Management: Improving Competitiveness in Organizations** **U** **3**

Introduction to operations and supply chain management to improve manufacturing and service organizations; analyzing, controlling and improving resources and processes to increase productivity, generate value-added output and meet business goals.Prereq: Econ 2001.01, and 2002.01, and Stat 1430, or equiv.; or Math 1151 or 1154, and enrollment in BSET program. Not open to students with credit for 3130, or to students enrolled in UExp or PreBSBA-PR.

**4250** **Six Sigma Principles** **U** **3**

Designed to familiarize students with the Six Sigma process improvement methodology and to provide them an opportunity to practice using Six Sigma Black Belt tools.Prereq: 2320, 2321, 3230, and AcctMIS 2200, 2300, and BusMHR 2292; or 3230, ISE 2040, and Stat 3440 or equiv., and enrollment in BSET program.

## Chemistry

**1110** **Elementary Chemistry** **U** **5**

Introductory chemistry for non-science majors, including dimensional analysis, atomic structure, bonding, chemical reactions, states of matter, solutions, chemical equilibrium, acids and bases, along with topics in organic and biological chemistry.Prereq: Math 1073, 1074, 1075 or above; Math Placement Level L, M, N, or R; or ACT Math subscore of 22 or higher that is less than 2 years old. Not open to students with credit for 1210, 1250, 1610, or 1910H.

**1210** **General Chemistry I** **U** **5**

First course for science majors, covering dimensional analysis, atomic structure, the mole, stoichiometry, chemical reactions, thermochemistry, electron configuration, bonding, molecular structure, gases, liquids, and solids.Prereq: One unit of high school chemistry, and Math Placement Level L or M; or a grade of C- or above in Math 1120, 1130, 1131, 1148, 1150, or above. Not open to students with credit for 1220, 1620, 1920H, 1250, 1610, or 1910H.

**1220** **General Chemistry II** **U** **5**

Continuation of 1210 for science majors, covering solutions, kinetics, chemical equilibrium, solubility and ionic equilibria, qualitative analysis, thermodynamics, electrochemistry, descriptive chemistry, coordination compounds, and nuclear chemistry.Prereq: 1210, 1215, 1250, 1610, or 1910H, and Math Placement Level L or M, or a grade of C- or above in Math 1120, 1130, 1131, 1148, or 1150, or above; or credit for both Chem 1206 and 1208.

**2510** **Organic Chemistry I** **U** **4**

Introduction to structure, nomenclature, physical properties, preparation and reactions of alkanes, alkenes, conjugated dienes, alkynes, alcohols, ethers, epoxides, aldehydes, and ketones. Other topics include stereochemistry, conformations of molecules, acids, bases, and reaction mechanisms.Prereq: Chem 1208, or 1210, or 1250, or 1610 or 1910H; and Chem 1220, or 1620 or 1920H; and Math Placement Level L or M, or a grade of C- or above in Math 1120, 1130, 1131, 1148, 1150, or above. Not open to students with credit for Chem 2520, 2610, 2620, 2910H, or 2920H.

**2520 Organic Chemistry II** U 4

Continuation from 2510, including aromatic systems, carboxylic acids, carboxylic acid derivatives, amines, carbon-carbon bond-forming reactions, polymers, carbohydrates, and amino acids.Prereq: Chem 1208, 1210, 1250, 1610, or 1910H, and Chem 1220, 1620, or 1920H, and Chem 2510, 2610, or 2910H, and Math Placement Level L or M, or a grade of C- or above in Math 1120, 1130, 1131, 1148, 1150, or above. Not open to students with credit for Chem 2620 or 2920H.

**2540 Organic Chemistry Laboratory I** U 2

Introduction to spectroscopic characterization, scientific writing, computational chemistry, and the laboratory techniques of organic chemistry, including synthesis, isolation, purification, and identification of organic compounds. Spectroscopic techniques discussed included (Infrared Spectroscopy, Mass Spectrometry, 1H and 13C Nuclear Magnetic Resonance).Prereq or concur: 2310, or 2510, or 2610 or 2910H; and 1208, or 1210, or 1250, or 1610 or 1910H; and 1220, or 1620 or 1920H; and Math Placement Level L or M, or a grade of C- or above in Math 1120, 1130, 1131, 1148, 1150, or above.

**2550 Organic Chemistry Laboratory II** U 2

Synthetic application to various organic reaction and spectroscopic characterization, scientific writing, computational chemistry, and the laboratory techniques of organic chemistry. The course includes application of synthesis, isolation, purification, and identification of organic compounds. Continued discussion of techniques and problem solving related to spectroscopy.Prereq or concur: Chem 2520, 2620 or 2920H; and prereq: Chem 1208, 1210, 1250, 1610 or 1910H; and 1220, 1620 or 1920H; and 2510, 2610 or 2910H; and 2540; and Math Placement Level L or M or a grade of C- or above in Math 1120, 1130, 1131, 1148, 1150 or above.

## Civics, Law, and Leadership

**2110 The American Experiment** U 3

What makes America work? How can our own decisions make the nation better or worse? This civic literacy course compares answers to these questions from political leaders, constitutional theorists, and social scientists. We will examine how Americans have debated Abraham Lincoln's claim that the Declaration of Independence serves as an "electric cord" uniting citizens of different generations, descents, and circumstances. And we will consider how social scientists working on civic education have explained the relationship between America's past, present, and future.

## Communication

**1100 Communication in Society** U 3

Role of communication in society; forms, strategies, theories and issues; interpersonal, group, organizations, public and mass communication.Prereq: Not open to students with credit for 200.

**1101 History of Communication** U 3

History of human communication from the beginning of spoken and written communication to modern mediated and mass communication.

**2367 Persuasive Communication** U 3

This course is designed to increase your understanding of persuasive communication as it relates to citizenship and the American experience. As an advanced level writing course, the course is specifically designed to improve your persuasive writing, speaking, and critical thinking skills as specific citizenship behaviors.Prereq: Completion of GE Foundation Writing and Information Literacy course. Not open to students with credit for 2367H.

**2850 Media and Citizenship** U 3

This course provides an overview of media's role in citizenship by learning about media industry operations, how media influence us, critical evaluation of media, media responsibility and literacy, and how our experiences and biases affect the current relationship between mass media and democracy. We will learn how to engage with media to promote informed, active, and responsible citizenship.

**3442 Violence in Society and Violence in the Media** U 3

This course examines the causes, consequences, and solutions to human aggression and violence. It discusses how aggression and violence are defined and measured, aggression theories, individual risk factors, contextual risk factors, protective factors, and aggression targets. It examines in detail violent media research. It also discusses how to reduce anger, aggression, and violent media effects.

## Comparative Studies

**2281 American Icons** U 3

Interdisciplinary methods in American studies, with an emphasis on plurality and the intersectional study of identities (including but not limited to race, gender, and ethnicity) in American culture.Prereq: English 1110.xx, or equiv.

## Computer Science and Engineering

**1222 Introduction to Computer Programming in C++ for Engineers and Scientists** U 3

Introduction to computer programming and to problem solving techniques using computer programs with applications in engineering and the physical sciences; algorithm development; programming lab experience.Concur: Math 1151, 1154, or 1161. Not open to students with credit for Engr 1281.01 or 1281.02.

**2111 Modeling and Problem Solving with Spreadsheets and Databases** U 3

Spreadsheet and database modeling/programming concepts and techniques to solve business related problems; efficient/effective data handling, computational analysis and decision support. Additional topics: computer concepts, networking, project integration.Prereq: Math 1130 or above, or Math Placement Level L. Not open to students with credit for 1111 or 1112.

## Construction Systems Management

**2305 Professional Development I** U 2

Business communications and professional development in construction systems management including informative and persuasive writing, academic planning, project management, research techniques, teaming, report writing and presentations.Prereq: English 1110. Not open to students with credit for AgSysMt 2305.

## Design

**2700 Introduction to Design Practice** U 3

Introduction to theory, rationale, practice, and societal impact of design; design process, critical issues, relationship to the environment.

## Earth Science

**1105 Geology of the National Parks** U 3

Geologic processes, materials, and history revealed in geologic settings of the National Parks. Autumn 2021 and after: Add EarthSc 1200 for Physical Science GE lab credit. Autumn 2022 and after: Add EarthSc 1200 to fulfill the GE Foundations: Natural Science requirement.Prereq: Not open to students with credit for 1100.

**1200 Introduction to Earth Science Laboratory** U 1

Laboratory application of basic earth sciences principles to identify and categorize rocks and minerals, use and construct maps to solve geological problems, and analyze Earth's physical processes. Pair with ES 1105, 1110(H), 1108, 1121, 1151, 2203, 2204, 2205, or 2206(S) for physical science GE with lab. Pair with ES 1105, 1110(H), 1108, 1121 or 1151 to fulfill GE Foundations Natural Sciences.Prereq or concur: 1105, 1108, 1110, 1110H, 1121, 1151, 2203, 2204, 2205, 2206, or 2206S. Not open to students with credit for 1100 or 2122. Not open to students with credit for EarthSc 1121 prior to Au 21.

**2205 The Planets** U 3

Survey of the origin and evolution of our Universe, Solar System, Planets and moons with focus on surface environments, dynamics, and the ability to host life. Add EarthSc 1200 for Legacy General Education (GEL) Physical Science lab credit.

## Economics

**2001.01 Principles of Microeconomics** U 3

Introduction to economic theory: supply and demand for goods, services, and factor inputs; market structure; international trade, the distribution of income. First required course for students planning to take 4000-level courses in Econ.Prereq: Not open to students with credit for 2001.02, 2001.03H, 200, 200H, or AEDEcon 2001 (200).

**2002.01 Principles of Macroeconomics** U 3

Introduction to the theory of national income determination; economic fluctuations; money; government policy; international economics.Prereq: Not open to students with credit for 2002.02, 2002.03H, 201, or 201H.

## Educational Studies

**2189S First Education Experience Program (FEEP)** U 3 - 5

Provides opportunities for students to explore education as a possible career path via a combination of field and seminar requirements. Students spend time in local, public PreK-12 school-based settings, interacting with various professionals and students.

## Educational Studies: Counselor Education

**2272 Seminar: Personal Growth to Increase Career Competencies** U 2

Designed to provide opportunities to assist in self-exploration of and clarification for more effective development beyond the level of average performance.
Prereq: Not open to students with credit for EduPAES 270.02. This course is progress graded (S/U).

## Educational Studies: Educational Psychology

**1259 Learning and Motivation Strategies for College Success** U 3

Teaches learning and motivation strategies to help students manage time, improve grades, and achieve college success. Students will develop practical skills for personal and academic effectiveness, while also understanding the related research. Topics include boosting motivation, overcoming procrastination, enhancing organization and concentration, and applying effective study strategies.

**2059 Becoming a Self-Regulated Learner** U 2

This course will build strategies and motivation to overcome recent academic challenges and prepare for success in the future. Main topics we will cover include self-regulation, active learning, studying, using resources, planning, goal setting, and time management. Our entire course is geared toward helping students become self-regulated learners.

**2309 Psychological Perspectives on Education** U 3

This course deals with the major theories of human development, motivation and learning. Planning of instruction, teaching strategies, assessment and classroom management are examined. Authentic pedagogical practices are used to gain an understanding of the teaching and learning process.Prereq: Not open to students with credit for EduPL 309.

## Educational Studies: Philo & Hist of Education

**3206 School and Society** U 3

Use of concepts and methods of history, philosophy and the social sciences to grasp the interrelationship between a diverse society and education.

**3410 Philosophy of Education** U 3

An introduction to key philosophical issues in education, focusing on the questions: Who should be educated? What should be taught? Who gets to decide?

## Educational Studies: Quant Rsrch, Evaltn & Msrmnt

**3005 Learner Centered Classroom Assessment** U 3

Offers an in-depth look at classroom assessment that meets the needs of 21st century teaching and learning. During this course, prospective teachers will determine how classroom assessment strategies can benefit their teaching practices and their students learning. They will study how to plan, develop, and manage student-centered assessment.

## Educational Studies: Special Education

**3189 Field Experience: Special Education** U 1 - 12

Professional service in school or community settings.
Prereq: Admission to the Special Education program, or permission of instructor. Repeatable to a maximum of 12 cr hrs or 12 completions. This course is graded S/U.

**4191.02 Student Teaching in Special Education: Mild/Moderate** U 1 - 12

Student teaching for Special Education students in mild/moderate intervention.Prereq: 5735. This course is graded S/U.

**5189 Field Experience: Special Education** U G 1 - 12

Professional service in school or community settings.Prereq: Admission in Special Education program, or permission of instructor. Repeatable to a maximum of 12 cr hrs or 12 completions. This course is graded S/U.

**5651 Introduction to Exceptional Children** U G 3

Introduction to Exceptional Children is an overview of the education of exceptional learners. This course focuses on students whose attributes/learning abilities differ from the norm to such an extent that an individualized program of special education is required to meet their needs. Enrollees will learn about the categories of special education (and their criteria), prevalence, and demographics.

**5722.02 Language and Communication Development for Children with Mild to Intensive Disabilities: Mild/Mod** U G 3

Examines current principles and practices in the development of alternative communication programs for individuals with mild to intensive disabilities.Prereq: Admission in Special Education: Mild/Moderate program, or permission of instructor.

**5734.02 Methods of Instruction for Elementary Children with Mild/Moderate Disabilities: Mild/Moderate** U G 3

This is a method course with a field placement that will provide students with information and strategies for working with children who have mild disabilities.Prereq: 5742 or 5734.02; and enrollment in Special Education: Mild/Moderate major; or permission of instructor.

**5735.02 Methods of Instruction for Secondary Students with Mild/Moderate Disabilities: Mild/Moderate** U G 3

Provides advanced training in specialized techniques and advanced teaching strategies for middle and high school students with mild/moderate disabilities.Prereq: 5743 or 5743.02; and enrollment in Special Education: Mild to Moderate major; or permission of instructor.

**5738 Reading Instruction for Children with Disabilities or Severe Reading Deficits** U G 3 - 4½

Course presents instructional strategies for teaching reading skills to learners who struggle with reading. Provides alternative strategies for the explicit teaching of reading and will focus on effectively teaching the five critical areas of reading instruction designated by the National Reading Panel.

**5743 Educational Assessment of Students With Mild/Moderate Disabilities** U G 3

Advanced training and specialized techniques in teaching methods for middle and secondary students with mild disabilities.Prereq: 5742; and admission to the Special Education program, or Grad standing; or permission of instructor.

**5755 Inclusive Classroom Management** U G 3

Students will learn best practice for positive behavior support and inclusion of students with special needs.Prereq: 5742.

**8189 Field Experience in Special Education** G 1 - 15

Planned counseling, supervisory, assessment, or teaching experience in a public school or other human service setting under supervision.
Prereq: Admission to Special Education graduate program or permission of instructor. Repeatable to a maximum of 15 cr hrs or 15 completions.

## Engineering

**1181.01 Engineering Foundations 1** U 3

Engineering problem solving utilizing computational tools such as Excel and MATLAB; hands-on experimentation; modeling; teamwork; written, oral and visual communications.Prereq or concur: Math 1140, or 1141; or Math 1150 or above. Not open to students with credit for Engr 1182.01, 1182.02, 1182.03, 1182.04, 1282.01H, 1282.02H, 1282.03H, 1282.04H, 1186.01, 1187, or 1188.

**1182.01 Engineering Foundations 2** U 2

Introduction to 3D visualization and CAD; engineering design-build process; teamwork; written, oral and visual communications; project management.Prereq: 1181.01, or 1181.02, or 1281.01H, or 1281.02H, or 1281.03H. Prereq or Concur: Math 1141; or Math 1151 or above. Not open to students with credit for 1186.01, or 1187, or 1188; not repeatable if credit earned for 1182.01, or 1182.02, or 1182.03, or 1182.04, or 1282.01H, or 1282.02H, or 1282.03H, or 1282.04H.

**2301 Exploring Citizenship in Engineering: Integrative Designation** U 4

Students will use the engineering design and writing processes to define a meaningful problem within specific local or global communities and formulate and propose a solution to that problem. Students will explore themes of diversity and inclusion in engineering and citizenship in a just and diverse world through a comprehensive, semester-long proposal project.Prereq: GE foundation writing and info literacy course. Not open to students with credit for 2300.

## Engineering Technology (BS)

**1200 Introduction to Engineering Technology** U 1

Introduction to the roles available in engineering technology, professional development planning for students pursuing this degree, and exposure to common elements in engineering technology. Course work will emphasize written and verbal communication skills.Prereq: Enrollment in the BSET program.

**1500 Manufacturing Processes I** U 3

History of manufacturing, tools and machines, and operations of the machine shop equipment. Opportunity to function individually and on teams, and communicate effectively to learn to work in groups to accomplish a task. The skills learned from this class are transferable to all areas of day to day professional life which makes it valuable in other contexts.

**1600 Engineering Graphics** U 3

Develop skills in graphic design and visualization through experience creating and interpreting 2D Computer Aided Drawings in AutoCAD. Explore various forms of technical graphics used in the field of Engineering Technology including facility layouts, piping and instrumentation diagrams, and electric schematics. Emphasis on utilizing technical graphics to solve Engineering Technology problems.

**2200 Introduction to Robotics: Basic Operations & Programming** U 2

Introduction to Robotics is a 2-credit course designed to teach students the basics of robotics in industrial automation, focusing on the role of an operator, technician, or engineer/programmer. Students will learn about various types and applications of industrial robots as well as the importance of robot safety.Prereq: Engr 1181.01; or Concur: CSE 1222 or CSE 1223. Not open to students with credit for 2100.

**2300 Electrical Circuits for Engineering Technology** U 3

Fundamentals of electrical circuits, measuring & analyzing data, & troubleshooting those circuits. Analysis of Direct Current (primarily) & Alternating Current circuits (less content) & effects of different components- resistors, capacitors, inductors, and other components in electrical circuits. DC/AC circuit dynamics that will be used in studies of industrial & electronic control applications.Prereq: Math 1155, 1172 or Math 1152; and Physics 1231 or 1251. Not open to students with credit for ECE 2300.xx.

**2500 Manufacturing Processes II** U 2

Modern manufacturing processes. Design, create, and assembly of structure/objects by combining the manufacturing and graphical design knowledge. Opportunity to function individually and on teams and communicate effectively to learn to work in groups to accomplish a task. The skills are transferable to all areas of day-to-day professional life which makes it valuable in other contexts.Prereq: 1500.

**3100 Material Science with Engineering Technology Applications** U ½

Supplemental course for BSET students that should be taken along with MatScEn 2010. This course will provide hands-on exposure to common manufacturing materials physical and chemical characteristics (like electrical and heat conductance) as well as testing methods (like stress, strain, hardness, brittleness, and microstructure.)Prereq: Physics 1250 or 1260, and Math 1151 or 1154, and Chem 1210 or 1250; or permission of instructor.

**3700 Mechanical Processes** U 3

Mechanical Processes is a 3-hr course designed to help students become familiar with modern mechanical processes as well as hydraulics/pneumatics and mechanical systems in manufacturing applications. The fundamentals and applications of mechanical systems included include pneumatics and hydraulics, cams, gears, bearings, gears, rotary and linear actuation.Prereq: 2500 and Engr 1182.

**3800 Project Management for Engineering Technology** U 3

Project Management is a course that focuses on waterfall (PMBOK) and Agile methodologies for managing projects in the manufacturing industry. Emphasis is placed on project initiation, planning, executing, monitoring & controlling, and closing processes. This course will provide students with an overview of leadership roles and responsibilities, as well as interpersonal skills, conflict resolution.Prereq: ISE 2040, or permission of instructor. Not open to students with credit for ISE 3800.

**3900 Industrial Automation PLC1** U 3

Industrial Automation PLC1 is a 3-credit hour course designed as the first of two courses intended to provide the students with skills in industrial automation that can be applied in a variety of technical fields related to manufacturing.Prereqs: 2300; and CSE 1222 or 1223; and Math 1152, 1155 or 1172.

**4200 Industrial Automation - PLC2** U 3

Industrial Automation PLC2 is designed as the second of two courses to provide the students with skills in industrial automation for manufacturing. The course is designed to provide students with the comprehensive review of functions, operation, and communication of automated industrial systems including PID loops, HMIs, data transfer, troubleshooting PLC networks for equipment/process integration.Prereq: C- or above in 3900.

**4250 Lean Six Sigma Foundations** U 3

This course will provide a broad exposure to topics in quality improvement that encompass the body of knowledge for Six Sigma Green Belts in both manufacturing and service industries, including hospitals, banks and retailers. Essential concepts, practices, methods and tools for quality improvement, lean management, and effective teamwork are examined, along with the Six Sigma DMAIC methodology.Prereq: 3800, and Stat 3440.

**4300 Facility Layout and Integration** U 3

Facility Layout and integration is a 3-hr course designed to give student skills needed to create effective layouts considering people, technology, process, throughput, and support systems. The class will build upon skills gained in previous classes in AutoCAD and Manufacturing Processes as well as use skills in analysis and design skills.Prereq: 1500 and 1600.

**4400 Leadership and Change Management** U 3

In-depth evaluation of the concepts and principles of effective engineering leadership, the characteristics of leaders and followers, and the principles of change management. Course work will emphasize written and verbal communication skills, in addition to presentation skills and exposure to real-world case examples.Prereq: Jr or Sr standing; or permission of instructor.

**4500 Intelligent Manufacturing and Automation** U 3

Intelligent Manufacturing and Automation is a 3-credit course in advanced robotics and automation designed to teach students complex integrated manufacturing systems to solve industry-related issues. Along the way, this course will provide you with opportunities to work individually as well as in teams to accomplish tasks using the Connected Smart Manufacturing system cell.Prereq: 2100 and 4200. Concur: 3600.

**4600 Power and Drives** U 3

ENGRTEC 4600, Power and Drives, is a 3-hour course designed to introduce the student to high-voltage power generation/transmission to production facilities and distribution within the facility. Further the course will focus on applications related to motors and variable frequency drives. Applications for power (12,000 volts to 120 volts) are found in typical production facilities.Prereq: 2300.

**4700 Network and Network Security** U 3

This course will provide you with an understanding of the basics of networking devices and systems along with the cyber security considerations and technology required for the deployment of these solutions. The cyber security materials will include a study of the human elements that impact this space. The course will provide an introduction to the safety control systems deployed in manufacturing.Prereq: 3600.

**4800 Technology, Structure and Applications for Controls** U 3

This course communicates the structure of a manufacturing organization, the technology and systems in each level of the organization and the roles in the automation, control, and monitoring of automation manufacturing systems. It provides insight in the types of manufacturing systems, equipment/machinery, sensors/control devices and how to develop code for these systems for an integration.Prereq: 4200.

**4900 ENGRTEC Capstone I** U 3

This course is designed to provide students the opportunity to test their level of acquired knowledge, experience, and leadership in an actual, well-defined customer project environment. Students will be provided an assigned project of interest, work in project teams, interacting with an engineering client leadership/people, to define, design, test and implement an actual working product, service.Prereq: 3800.

**4910 ENGRTEC Capstone II** U 3

This is the second course of the series designed to provide students the opportunity to test their level of acquired knowledge, experience, and leadership in an actual, well-defined customer project environment. Students will be provided an assigned project of interest, work in project teams, interacting with an engineering client.Prereq: 4900.

## English

**1110.01 First-Year English Composition** U 3

Practice in the fundamentals of expository writing, as illustrated in the student's own writing & in the essays of professional writers. May be available as a service learning course with five hours community service required at the Lima campus only.Prereq: EduTL1902 (108.01) or 1902.04 (108.01), or English Placement Level 4. Not open to students with credit for 1109 (109.01 or 109.02), 1110.01 (non-DL version), 1110.01H (110.01H), 1110.02 (110.02), 1110.02H (110.02H), 1110.03 (110.03), 1167H (167H ), 110.01.

**1110.03 First-Year English Composition** U 3

Intensive practice in fundamentals of expository writing illustrated in the student's own writing and essays of professional writers; offered in a small class setting and linked with an individual tutoring component in its concurrent course, 1193. This course is available for EM credit only through the AP program.Prereq: 1109, or English Placement Level 5 (Placement Level 4 allowed if student requests service). Concur: 1193. Not open to students with credit for 1110.01, 1110.01H, 1110.02, 1110.02H, 1167H, or equiv.

**1193 Individual Studies** U 1 - 4

Intensive practice in the fundamentals of expository writing.
Prereq: Permission of Director of First-Year Writing. Concur: 1110.03. Repeatable to a maximum of 6 cr hrs or 6 completions. This course is graded S/U.

**2195 American Literature and the US Civic Tradition** U 3

This class covers all the required texts of American Civic Literacy Course, as well as other important American literary texts that analyze the theories, practices, and tensions between the founding ideals of liberalism (individual rights and liberties) and republicanism (civic virtue and the common good).Prereq: English 1110.xx; or GE foundation writing and info literacy course.

**2201 Selected Works of British Literature: Medieval through 1800** U 3

An introductory critical study of the works of major British writers from 800 to 1800.Prereq: English 1110.xx; or GE foundation writing and info literacy course. Not open to students with credit for 2201H.

**2276 Arts of Persuasion** U 3

Introduces students to the study and practice of rhetoric and how arguments are shaped by technology, media, and cultural contexts.Prereq: English 1110.xx, or GE foundation writing and info literacy course.

**2277 Introduction to Disability Studies** U 3

Foundational concepts and issues in disability studies; introduction to the sociopolitical models of disability.Prereq: English 1110.xx; or GE foundation writing and info literacy course.

**2282 Introduction to LGBTQ+ Studies** U 3

Introduces and problematizes foundational concepts of the interdisciplinary field of LGBTQ+ studies, highlighting the intersections of sexuality with race, class, and nationality.Prereq: English 1110.xx; or GE foundation writing and info literacy course; or permission of instructor. Not open to students with credit for WGSSt 2282. Cross-listed in WGSSt.

**2290 Colonial and U.S. Literature to 1865** U 3

Introductory study of significant works of U.S. literature from its Colonial origins to 1865.Prereq: English 1110.xx; or GE foundation writing and info literacy course.GE lit course.

**3000 Writing for Social Change** U 3

In this course we will use academic writing and research practices across various forms of media to investigate the role of citizenship historically and currently, exploring the ways that we as citizens can work towards a more just and diverse society. We will develop a definition of citizenship that emphasizes a citizen?s relationship to their local, national, and global environments.Prereq: English 1110.xx; or GE foundation writing and info literacy course.

**3020 Writing About Sustainability** U 3

This course asks students to consider their place in the natural world by conducting primary and secondary research, analyzing data, composing and revising written arguments, and becoming more proficient with the conventions of academic discourses. We will employ rhetorical theory as one approach to engage in advanced, in-depth, and scholarly investigations about sustainability.Prereq: English 1110.xx; or GE foundation writing and info literacy course.

**3261 Fiction, Then and Now** U 3

This course examines the transformative power of fiction, its significant social functions, its establishment of and challenge to literary traditions, and its ability to reshape the world.Prereq: English 1110.xx; or GE foundation writing and info literacy course.

**3264 Monsters Without and Within** U 3

Storytellers have long used monsters not only to frighten us but also to jolt us into thinking deeply about ourselves, others, and the world we live in. This course examines how various horror genres use monsters to explore issues of wellbeing and citizenship, and debates about race, gender, sexual orientation, mental health, social justice, and personal responsibility.Prereq: English 1110.xx; or GE foundation writing and info literacy course.

**3378 Special Topics in Film and Literature** U 3

Focuses on the relationship between film and literature; topics may include adaptation, cross-media themes and modes, influence of cinema on literature and vice versa.Prereq: 1110. Not open to students with 10 qtr cr hrs for 378. Repeatable to a maximum of 6 cr hrs.

**3398 Methods for the Study of Literature** U 3

Serves as the "Methods" course for the Literature and Creative Writing concentrations within the English major. Its purpose is to familiarize students with literary studies in such a way as to prepare them for advanced courses in all literary fields and the genres of Creative Writing. Required of English majors. Open to English majors only or others by dept permission.Prereq: 1110.01, and declared major in English. Sr students must have the permission of the Director of Undergraduate Studies. Not open to students with credit for 2298 or 3398H.

**4515 Chaucer** U 3

A close study of Troilus and Criseyde and The Canterbury Tales as introduction to the artist and his period.
Prereq: 6 cr hrs in English at 2000-3000 level, or permission of instructor. 5 qtr cr hrs of 367 or 6 sem cr hrs of 2367 in any subject are acceptable towards the 6 cr hrs. Not open to students with credit for 515 or 615.

**4592 Special Topics in Women in Literature and Culture** U 3

Using feminist perspectives, students will learn to analyze literature and other cultural works (film, television, digital media) written by or about women. Time period and topic vary.Prereq: 6 cr hrs of English at 2000-3000 level, or permission of instructor. 3 cr hrs in 2367 in any subject is acceptable towards the 6 cr hrs. Repeatable to a maximum of 6 cr hrs.

## Evolution, Ecology and Organismal Biology

**2520 Human Physiology** U 3

A survey of the human nervous system, sense organs, muscle function, circulation, respiration, digestion, metabolism, kidney function, and reproduction.
Prereq: 3 sem cr hrs in Biological Sciences. Not open to students with credit for 232.

**3310.01 Evolution** U 4

Basic conceptual issues and processes in evolution with an emphasis on the ecological basis of adaptation and consequences of natural selection. Also available summer term at Stone Lab.Prereq: Biology 1114 or 1114H, or permission of instructor. Not open to students with credit for 3310 or 3310.02.

**3420 Behavioral Ecology** U 4

Comparative study of animal behaviors, and analysis of their adaptive value, physiological mechanisms, development, and evolution, within their ecological and social context. Also available summer session at Stone Lab.
Prereq: Biology 1114 or 1114H, or permission of instructor. Not open to students with credit for 440, 620, 730, or 740.

**4220 Focused Study of Ecology and Evolution - Mammals** U 3

Mammals of the world, their natural history, distribution, taxonomy, and major anatomical and physiological adaptations; study of local species emphasized in lab.Prereq: 3310.

**4520 Comparative Physiology** U 4

Functional systems in invertebrates and vertebrates: respiration, circulation, water, ion, and energy balance; communication; locomotion; and reproduction.Prereq: Biology 1114 or 1114H, and 1 course in Biological Sciences.

**4998 Undergraduate Research** U 1 - 12

Undergraduate research in evolution, ecology, and organismal biology.
Prereq: 2 courses in Biological Sciences, and permission of instructor. Repeatable to a maximum of 12 cr hrs or 5 completions. This course is graded S/U.

**4999 Undergraduate Thesis Research** U 1 - 12

Undergraduate research towards a thesis in Evolution and Ecology, or Zoology.
Prereq: 8 cr hrs in Biological Sciences, and permission of instructor. Repeatable to a maximum of 12 cr hrs or 5 completions. This course is graded S/U.

**4999H Undergraduate Thesis Research - Honors** U 1 - 12

Undergraduate research towards an honors thesis in Evolution and Ecology, or Zoology.
Prereq: Honors standing, and 8 cr hrs in Biological Sciences, and permission of instructor. Repeatable to a maximum of 12 cr hrs or 5 completions. This course is graded S/U.

## Exploration

**1100.01 University Exploration Survey** U 1

Introduction to the process of decision making and exploring majors at Ohio State; introduction to university community; strategies for successful transition to and participation in that community; university resources and procedures.Prereq: Permission of instructor.

**1100.01H Exploration Survey** U 1

University survey class for new freshmen honors students.Prereq: First year student in Exp or permission of instructor. Not open to students with credit for 100.01, 100.01H, 100.02 or 100.03.

**1100.02 University Exploration Survey - Transfer** U 1

Introduction to the processes of decision making and exploring majors at Ohio State; introduction to the university community; strategies for success transition to and participation in that community; university resources and procedures.Prereq: New transfer student in Exploration; and permission of instructor. Not open to students with credit for a university survey course from another college or 1100.01.

**1110 Essential Skills for Academic Success** U 3

This course overviews the knowledge and skills essential to success in the Online AA program at Ohio State. Students will become familiar with degree structure and areas of concentration, engage in collaborative learning, and strengthen foundational competencies in math and writing. The course also introduces the university's academic and student support resources needed to build confidence. Prereq: Enrollment in the online Associate of Arts Degree at Lima (ASOCONL-AA).

## Food Science and Technology

**2300 Role of Food Science in Human Health** U 3

This course explores the role of food in an individual's health by addressing mainstream controversies. Students will have an understanding of food supply chain, food components, food safety, food processing, food additives, labeling, food laws and regulations and their impact on ensuring a safe food supply and protecting consumer's health.Prereq: Not open to students with credit for 2200 or 4597.02.

## French

**1101.21 Beginning French I DL** U 4

Distance learning version of introduction to French; development of listening, reading, speaking, and writing skills. Taught in French. Course not open to native speakers, students with EM credit, or to students with two or more years of study in this language in high school.Prereq: Not open to students with credit for 1101.01 or 4 credits of 1101.51 or 1101.61.

**1102.21 Beginning French II DL** U 4

Distance learning version of continued introduction to French; development of listening, reading, speaking, and writing skills. Taught in French. Course not open to native speakers, students with EM credit, or to students with two or more years of study in this language in high school.Prereq: 1101.01 or 1101.21, or completion of 4 cr hrs of 1101.51 or 1101.61, or French Placement Level 8. Not open to students with credit for 1102.01 or 4 credits of 1102.51 or 1102.61.

**1103.21 Beginning French III DL** U 4

Distance learning version of continued introduction to French; development of listening, reading, speaking, and writing skills. Taught in French. Course not open to native speakers, students with EM credit, or to students with two or more years of study in this language in high school.Prereq: 1102.01, 1102.21, 1155.01, or 1155.21, or 4 cr hrs of 1102.51 or 1102.61, or French Placement Level 7. Not open to students with credit for 1103.01, 1103.02, or 4 cr hrs of 1103.51 or 1103.61.

## General Education

**1201 GE Launch Seminar** U 1

This course is first GE Bookend class. The Launch seminar provides a strong introduction for the broad goals of the General Education program, introduces key skills, and supports sustained growth in terms of attaining program goals.This course is graded S/U.

## History

**2001 Multiple Americas: US History from Colonialism to Reconstruction** U 3

An introduction to the history of what would become the United States, from the Colonial period to Reconstruction, with an emphasis on race, gender and ethnicity. Topics include colonization, the dispossession and enslavement of African and Native peoples, gender roles, immigration, the conquest and settlement of the Southwest, and the events that moved America both toward and away from equality.Prereq: Not open to students with credit for 1151.

**2003 American Civics through History** U 3

This course introduces students to the complex history of American democratic civic traditions through close analysis of some of the most important texts and concepts in U.S. political history from the colonial era to the present.

**2120 Revolutions and Social Movements in Modern Latin America** U 3

Latin American history from independence (1825) to the present focusing on revolutions, dictatorships, labor, political, and social movements, women, and indigenous populations. Sometimes this course is offered in a distance-only format.Prereq or concur: English 1110.xx, or permission of instructor.

**2125 The History of Latin America Through Film U 3**

Latin American history from the pre-colonial era to the present as depicted in film, including the analysis of colonialism, revolutions, society, women, and current events. Sometimes this course is offered in a distance-only format.Prereq or concur: English 1110.xx, or permission of instructor.

**2550 History of War U 3**

A survey of the main concepts and issues involved in the study of war in world perspective, using case studies from prehistoric times to the present.Prereq or concur: English 1110.xx, or completion of GE Foundation Writing and Information Literacy Course, or permission of instructor.

**2642 Global History 1500 to Present U 3**

Provides an overview of the history of the world from 1500 to the present day, chronicling how a world of subjects and empires became a world of states and citizens.Prereq: Not open to students with credit for 1682.

**2650 The World since 1914 U 3**

Global perspective on major forces that shaped the world since 1914. Provides students with factual knowledge and a critical interpretive framework for responsible global citizenship.Prereq or concur: English 1110.xx, GE foundation writing and info literacy course, or permission of instructor.

**2651 World History before the Modern Age U 3**

A thematic approach to exploring selected major processes and events that shaped human experience between the Stone Age and 1750. Specific topics and content can vary.Prereq or concur: English 1110, or equiv. Not open to students with credit for 1681.

**2703 History of Public Health, Medicine and Disease U 3**

Survey of the history of public health, disease and medicine in a global context.Prereq or concur: English 1110.xx, or GE Foundation Writing and Information Literacy course, or permission of instructor.

**2800 Introduction to the Discipline of History U 3**

Investigation of the methods and analytical approaches historians use to understand the past.Prereq or concur: English 1110.xx, GE foundation writing and info literacy course, or permission of instructor.

**3017 The Sixties U 3**

Examination of postwar America's pivot point, focusing on civil rights; liberal, radical, and conservative politics; sweeping social, cultural, and economic change; and the Vietnam War.Prereq: English 1110.xx, or permission of instructor.

**3105 History of Brazil U 3**

Known for its beaches, carnival, and soccer, Brazilian history is a far deeper story of colonialism, slavery, agricultural wealth, immigration, industrial development, political conflict over authoritarianism and democracy, and more. This course studies the history of precolonial Brazil to the present, with a focus on Brazilian citizenship and the challenges of creating a diverse and just society.

**3245 The Age of Reformation U 3**

The history of the Protestant, Catholic, and Radical Reformations of 16th and early 17th century Europe.Prereq or concur: English 1110.xx, or GE foundation writing and info literacy course, or permission of instructor.

**3250 Subjects to Citizens: A History of Revolutionary and Napoleonic Europe U 3**

A history of Revolutionary and Napoleonic Europe from the crisis of the Old Regime and the French Revolution to the end of the Napoleonic Empire. The course also considers changing conceptions of citizenship during the period, from subjects under monarchical rule to citizens of rapidly changing revolutionary and post-revolutionary governments.

**3561 Citizenship and American Military History: 1902 to the Present U 3**

This course examines how uniformed service impacted Americans' conception of citizenship from the aftermath of the Spanish-American War through the wars in Afghanistan and Iraq after the terrorist attack on the U.S. homeland on September 11, 2001.Prereq or concur: English 1110.xx, or completion of GE Foundation Writing and Information Literacy Course, or permission of instructor.

**3570 World War II U 3**

A study of the causes, conduct, and consequences of World War II, with a particular emphasis on chancing conceptions of citizenship. In many ways, the war was used as a tool to define what it was to be a nation and a citizen of that nation, and what that meant for each country?s interests around the world when those ideals clashed.

**3641 Women and Gender in Early Modern Europe (1450-1750): Diversity in Context U 3**

Investigation of the lives and experiences of early modern European women, with special focus on family life, gender, work, education, religious life, and political power.Prereq or concur: English 1110.xx, or completion of GE Foundation Writing and Information Literacy Course, or permission of instructor.

**3676 Leadership in History U 3**

This course employs the lessons, models, and narratives of history to consider different characteristics of leadership and analyze how those qualities might shape students' own vision of what it means to be an informed citizen, leader, and follower.

**4525 Seminar in International History U 3**

Advanced research and readings on selected topics in International History.Prereq or concur: English 1110.xx, or GE foundation writing and info literacy course, a grade of C or above in History 2800, and any 3000-level History course; or permission of instructor.

## Human Nutrition

**2410 Science of Human Nutrition U 4**

Basic principles of biological science, emphasizing the interaction between nutrients and physiological (including cellular) processes.Prereq: Not open to students with credit for 2210.

## Industrial and Systems Engineering

**2040.02 Engineering Economics - Online U 2**

Economic Analysis of engineering project alternatives. Cash flow modeling; time value of money; techniques for comparing project alternatives and making solid business recommendations; influence of financial accounting and cost accounting on cash flow models. Course uses MS Excel as primary business tool for modeling.Prereq: Soph standing in Engineering.

## Kinesiology: Health and Exercise Science

**2995 Food is Function, Movement is Medicine U 4**

This integrative course provides an introduction to the powerful and widespread impact of food and fitness on human health. This course will examine essential components of a healthy lifestyle, including eating patterns, optimizing physical activity plans, improving sleep, managing stress with healthy coping strategies, forming and creating positive relationships and adopting healthy habits.

## Materials Science and Engineering

**2010 Introduction to Engineering Materials U 3**

Introduction to the properties (mechanical, electrical, thermal, diffusive, degradative, magnetic, optical), structure, and processing of engineering materials, including ceramic, metals, polymers, biological, and composite materials.Prereq: Physics 1250 or 1260; and Math 1151, 1161, or 1154 and enrollment in BSET program; and Chemistry 1210 or 1250 or 1910H; or permission of instructor.

## Mathematics

**1050 Precollege Mathematics I U 5**

Fractions and decimals, basic algebra, graphing lines, factoring, systems of equations. Credit for this course will not count toward graduation in any degree program.
Prereq: 1040 (040) or 050, or Math Placement Level T, or permission of department. Not open to students with credit for any Math course above 1050 (050).

**1075 Precollege Mathematics II U 4**

Algebraic, rational, and radical expressions; functions and graphs; quadratic equations; absolute value; inequalities; and applications. Credit for this course will not count toward graduation in any degree program.
Prereq: 1074 or 075; or a grade of C- or above in 1050; or Math Skills Assessment Level R or S; or ACT math subscore of 22 or higher that is less than 2 years old. Not open to students with credit for any Math course above 1075, except for 1116; or for any quarter-system course above 075, except for 116.

**1116 Excursions in Mathematics U 3**

Critical thinking and problem solving, with relevant topics met in everyday life. Appropriate for non-science majors.Prereq: 1073, 1074, 1075, 75, or 104; or Math Placement Level R or above; or ACT math subscore of 22 or higher that is less than 2 years old. Not open to students with credit for 1152 (153) or above.

**1120 Precalculus with Review I U 5**

This is the first course of a two course sequence covering precalculus. In this first course, topics covered will include an introduction to functions (linear, polynomial and rational), equations and inequalities along with appropriate review. This course is designed with an emphasis on reviewing these fundamental basic algebra skills as they apply to precalculus in a just-in-time manner.Prereq: A grade of C- or above in 1075; or grade of B- or above in 1050; or Math Placement level R. Not open to students with credit for 1121 or above.

**1121 Precalculus with Review II U 5**

This is the second course of a two course sequence in precalculus. In this second course, topics covered will include an introduction to functions (exponential, logarithmic, trigonometric), equations, inequalities and right-angle trigonometry with appropriate review. This course has an emphasis on reviewing fundamental basic algebra skills as they apply to precalculus in a just-in-time manner.Prereq: A grade of C- or above in 1120.

**1130 College Algebra for Business U 4**

Algebraic, exponential, and logarithmic functions. Matrix algebra. Applications to business.

Prereq: A grade of C- or above in 1075, or credit for 104, or Math Placement Level M or N, or ACT math subscore of 22 or higher that is less than 2 years old. Not open to students with credit for 1131 (131), or for any Math course numbered 1149 (150) or above.

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**1131 Calculus for Business** **U** **5**

Survey of calculus of one and several variables; applications to business.Prereq: A grade of C- or above in 1130, 1144, 1148, or 1150, or credit for 130, 148, or 150, or Math Placement Level L. Not open to students with credit for 1151 (151) or above, or 1134 (132).

**1135 Number and Operations for Teachers** **U** **5**

The first course in a two semester sequence for teachers of elementary and middle grade students. This course focuses on concepts of numbers and arithmetic operations, including modern and historical perspectives.Prereq: A grade of C- or above in 1075; or credit for 1074, 75, or 104; or Math Placement Level R or above; or ACT math subscore of 22 or higher that is less than 2 years old. Not open to students with credit for 106.

**1136 Measurement and Geometry for Teachers** **U** **5**

This course is the second in a two semester sequence for teachers of elementary and middle grade students. This course focuses on concepts of measurement and geometry, including modern and historical perspectives.
Prereq: A grade of C- or above in 1135.

**1148 College Algebra** **U** **4**

Functions: polynomial, rational, radical, exponential, and logarithmic. Introduction to right-angle trigonometry. Applications.Prereq: A grade of C- or above in 1075, or credit for 104 or 148, or Math Placement Level N, or ACT math subscore of 22 or higher that is less than 2 years old, or permission of department. Not open to students with credit for 1144, or for Math courses numbered 1150 (150) or above.

**1149 Trigonometry** **U** **3**

Trigonometric functions and their properties. Vectors, polar coordinates and complex numbers.Prereq: A grade of C- or above in 1148, or permission of department. Not open to students with credit for 1144, or for any Math course numbered 1150 (150) or above.

**1151 Calculus I** **U** **5**

Differential and integral calculus of one real variable.Prereq: A grade of C- or above in 1148 and 1149, or in 1144, 1150, or 150, or Math Placement Level L. Not open to students with credit for 1152 or 152.xx, or above.

**1172 Engineering Mathematics A** **U** **5**

Techniques of integration, Taylor series, differential calculus of several variables. Applications.Prereq: A grade of C- or above in 1114 (114), 1151, 1156, 1161.xx, 152.xx, 161.xx, or 161.01H. Not open to students with credit for 1152, 1534 (153.xx), or 1544 (154), or for any Math class numbered 1172 or above, or for any quarter-system Math class numbered 254.xx or above. Not open to students majoring in Math, pre-Actuarial Science, or Actuarial Science.

**2138 Calculus and its History for Teachers** **U** **3**

This is one of two independent courses which follow Math 1136 to provide necessary content for middle grade teachers. This course focuses on functions and calculus, including modern and historical perspectives.
Prereq: A grade of C- or above in 1136; and a grade of C- or above in 1149 or 1150, or credit for 150, or math placement level L.

## Microbiology

**4000.01 Basic and Practical Microbiology** **U** **4**

Provides an understanding of microorganisms and their interaction with the human experience.Prereq: 3 cr hrs in Biology. Not open to students with credit for 4000 or 4000.02; or 4100, unless waived by instructor.

## Military Science

**1101 Introduction to the Army and Critical Thinking** **U** **1**

Introduction to the personal challenges and competencies that are critical for effective leadership. Students learn how developing time and stress management skills, and physical fitness relate to leadership and the Army Profession. No military obligation is required. This course is open to all OSU students.Prereq: All Cadets enrolled in a Military Science course must have a physician complete a Department of the Army DA Form 345-R, Medical Fitness Statement for Enrollment in Basic Course, Senior ROTC, in order to participate in any Army ROTC physical activity including: marching, laboratory, and field training exercises. Repeatable to a maximum of 3 cr hrs.

## Molecular Genetics

**4500.01 General Genetics** **U** **3**

The principles of genetics, including molecular genetics, transmission genetics of prokaryotes and eukaryotes, developmental and non-chromosomal genetics, recombinant DNA and genomics, and the genetics and evolution of populations. Taught in person.Prereq: Biology 1101, 1113, or 1113H, and 3 additional sem cr hrs in Biological Sciences. Not open to students with credit for 4500, 4500.02, or 4606.

## Music

**2032S Drumming for Wellness** **U** **4**

Students will learn research, theories, skills, and techniques relevant to the use of music in settings in which the focus is to assist in the rehabilitation, treatment, or well-being of people with motor disorders and their caregivers. Course will not count as an elective for music degree programs.

**2252 History of Rock 'n' Roll** **U** **3**

The history and culture of rock 'n' roll.Prereq: Not open to students with credit for 252.

**2254 Video Game Music** **U** **3**

An introduction to the history and function of musical sound in video games.

**3364 Musical Citizenship: Activism, Advocacy and Engagement in Sound** **U** **3**

This course examines the sonic expressions of people's status, identity, rights, and duties as political subjects across multiple scales of place. We will consider the value of cultural advocacy in the public sector and social activism in the public sphere and the importance of partnering with (non)governmental institutions, community organizations, and grassroots affiliates to advance musical art.

**3370 Music for Elementary Teachers** **U** **2**

Music literature and teaching aids for children, including singing, rhythmic, creative, and listening experiences, and their presentation.

## Philosophy

**1300 Introduction to Ethics** **U** **3**

The nature of right and wrong, good and evil; the grounds of moral choice and decision; the resolution of moral conflicts.

**2390 Ethics and Leadership in a Diverse World** **U** **3**

Students will engage with leading scholarship on the justification of authority, democratic citizenship, morally responsible decision-making, and virtue ethics to understand how citizenship in a just and diverse society shapes our ideals and practices of ethical leadership.

## Physics

**1200 Mechanics, Kinematics, Fluids, Waves** **U** **5**

Algebra-based introduction to classical physics: Newtons laws, fluids, waves.Prereq: A grade of C- or above in Math 1120 or 1148, or Math Placement Level M.

**1201 E&M, Optics, Modern Physics** **U** **5**

Algebra-based introduction to electricity and magnetism, simple optics, overview of modern physics including special relativity and quantum mechanics.Prereq: 1200, 1249, 1250, 1260, or 1270.

**1231 Physics for Engineering Technology: Electricity and Magnetism** **U** **3**

Calculus-based introduction to electricity and magnetism, for students in Engineering Technology.Prereq: 1250, 1250H, or 1260; and Math 1141 or 1151 or 1154 or above; or permission of instructor. Concur: Math 1152, 1155, 1158, 1161, 1172, 1181H, or 4181H. Not open to students with credit for 1251.

**1250 Mechanics, Work and Energy, Thermal Physics** **U** **5**

Calculus-based introduction to classical physics: Newton's laws, work and energy, fluids, thermodynamics; for students in physical sciences, mathematics, and engineering.Prereq or concur: Math 1141, 1151, 1154, 1156, 1161, 1181H, or 4181H.

**1251 E&M, Waves, Optics, Modern Physics** **U** **5**

Calculus-based introduction to electricity and magnetism, waves, simple optics, and quantum mechanics; for students in physical sciences, mathematics, engineering.Prereq: 1248 and 1249, or 1250, 1250H, 1260, or 1270; and Math 1141, 1151, 1154, or above; and Concur: Math 1152, 1155, 1161, 1172, 1181H, or 4181H; or permission of instructor.

**2193 Individual Studies** **U** **1 - 5**

Designed to give a properly qualified student opportunity for independent reading, study, or laboratory work in a specialized field of interest.
Prereq: Permission of instructor. Repeatable to a maximum of 20 cr hrs or 5 completions. This course is graded S/U.

## Psychology

**1100 Introduction to Psychology** **U** **3**

A prerequisite to advanced courses; a broad survey of psychological science. Application of the scientific method to the empirical study of behavior with emphasis on individual and cultural differences.Prereq: Not open to students with credit for 100, 1100H (100H) or 1100E (100E).

**1100E Introduction to Psychology** **U** **3**

A prerequisite to advanced courses; a broad survey of psychological science. Application of the scientific method to the empirical study of behavior with emphasis on individual and cultural differences.Prereq: Honors standing, or permission of instructor. Not open to students with credit for 1100 or 1100H.

**1375 I am. The Psychology of Identity and Culture U 3**

Contemporary and historical research into psychological identity; The science of how individual people experience personal and cultural differences. Reading and discourse on the psychology research of: personality, social roles, cultural neuroscience, social categorization, intergroup contact, race, ethnicity, diversity, and more.

**2220 Data Analysis in Psychology U 3**

Discussion of statistical analysis of psychological data - random samples, graphical and numerical techniques of descriptive statistics, correlation, regression, probability, sampling distribution, and hypothesis testing.Prereq: 1100 or 1100H; and Stat 1350.xx, 1450.xx, Math 1120, 1130, 1148, 1149, 1150, or 1151, or equiv, or Math Placement Level M or higher.

**2300 Research Methods in Psychology U 3**

An overview of issues, methods, and techniques of scientific psychological research. Students must be pursuing majors or minors in Psychology.Prereq: 1100 or 1100H.

**3331 Abnormal Psychology U 3**

Examination of current theories and empirical findings regarding the major forms of psychopathology and treatment.Prereq: 1100 or 1100H. Not open to students with credit for 2367.02, 3331H, or 3331E.

**3340 Introduction to Life Span Developmental Psychology U 3**

Consideration of theories and research on psychological development across the lifespan; includes consideration of social policies that influence developmental outcomes.Prereq: 1100 or 1100H.

**3375 Stereotyping and Prejudice U 3**

Lectures address experimental research in stereotyping and prejudice; readings focus on historical, cultural, and sociological perspectives on issues related to gender, ethnicity, and social class.Prereq: 1100 or 1100H.

**3551 Psychology of Adolescence U 3**

An examination of the biological, psychological, and social aspects of normal adolescent development.Prereq: 1100 or 1100H.

**4475 The Self U 3**

Survey of classic and contemporary theory and research on social psychological study of the self; diverse approaches, and various gender, ethnic, and cross-cultural perspectives.Prereq: A grade of C- or above in 2220, 2300, and 2367 prior to SU13, 2367.01, 3325, 3325H, or 3375. Not open to students with credit for 475.

**4540 Counseling Psychology U 3**

Issues within the field of counseling psychology including assessment, counseling skills, multicultural issues, career, professional, and ethical issues.Prereq: A grade of C- or above in 2220 and 2300; and a grade of C- or above in 2367.02, 3331, 3335, or 3530.

**4552 Psychology of Adult Years U 3**

Theory and research related to adulthood as a sequence of psychological stages involving adjustment and coping behaviors; relationship of adulthood to other life-span stages.Prereq: A grade of C- or above in 2220 and 2300.

**4998 Undergraduate Research in Psychology U 1 - 5**

Supervised collaborative research in psychology.
Prereq: Permission of instructor. Repeatable to a maximum of 15 cr hrs or 8 completions. This course is graded S/U.

**4999.01 Thesis Research I U 2**

Seminar designed to support the writing of the Thesis proposal and data collection, including proposal structure, literature review, research ethics, the IRB process, and data collection methodology.
Prereq: Enrollment in Psych, and candidate for degree with research distinction, and permission of department.

**4999.01H Honors Thesis Research I U 2**

Seminar designed to support the writing of the Honors thesis proposal and data collection, including proposal structure, literature review, research ethics, the IRB process, and data collection methodology.
Prereq: Honors standing, and enrollment in Psych major, and candidate for degree with research distinction, and permission of department. Not open to students with credit for 783.01H or 783.02H.

**4999.02 Thesis Research II U 2**

Seminar designed to support data collection/analysis, and writing and defending of the Thesis, including quantitative methods, data interpretation, summary, and presentation, writing results and discussion, poster presentation, and oral defense.
Prereq: 4999.01.

**4999.02H Honors Thesis Research II U 2**

Seminar designed to support data collection/analysis, and writing and defending of the Honors thesis, including quantitative methods, data interpretation, summary, presentation, writing results & discussion, poster presentation, and oral defense.
Prereq: Honors standing, and 4999.01H; or permission of instructor. Not open to students with credit for 783.02H or 783.03H.

## Religious Studies

**2370 Introduction to Comparative Religion U 3**

Introduction to the academic study of religion through comparison among major traditions (Judaism, Christianity, Islam, Hinduism, Buddhism, etc.) and smaller communities.Prereq: English 1110 or equiv. Not open to students with credit for 2370H or CompStd 2370H or 2370.

## Russian

**3360 Russian Landscapes: Nature and the Environment in Russian-Language Literature, Film, and Art U 3**

We will explore how writers, poets, film directors, painters, and thinkers of the Russian Empire, Soviet Union, and Russian Federation have depicted the diverse natural surroundings, including grasslands, steppe, desert, tundra, mountains, and their relation to the people who inhabit them.

## Slavic Languages and Literatures

**3320.01 Queer Comrades: Sexual Citizenship and LGBTQ Lives in Eastern Europe U 3**

Through the lens of film, literature, theater, and art, this course explores what it means to be a queer citizen of Eastern Europe. Countering ideas of inherent backwardness, which tend to erase the existence of a diverse group of people, we will get to know works of art that bear witness to the wealth of queer experiences in 20th century Eastern Europe.Prereq: Not open to students with credit for 3220 or 3220.02.

## Social Work

**1120 Introduction to Social Welfare U 3**

An introduction to the history, structure, and function of the social welfare institution.Prereq: Not open to students with credit for 220 or 520.

**1130 Introduction to Social Work in Contemporary Society U 3**

An introduction to the core values, fundamental goals, unique functions and methods of the social work profession.Prereq: Not open to students with credit for 230.

**1140 Issues in Social Justice: Race, Gender and Sexuality U 3**

Examines the history of social oppression directed at certain minority populations in the United States and its impact on their current opportunities and lived experiences. The primary purpose is to analyze how racism, sexism, heterosexism and institutionalized discrimination based on ethnicity affect the social welfare and well-being of those living in the United States.

**2110 Sport and Positive Youth Development U 3**

This course focuses on how characteristics of individuals, families, peer systems, schools, neighborhoods & other environmental contexts contribute to the development of social, academic, & health-related problems among youth. Students will apply the knowledge & skills of generalist practice to the design and delivery of prevention and youth development programs in sport/recreation/play settings.

**3101 Professional Values and Ethics U 3**

Introduction to the NASW Code of Ethics, ethical theory, and ethical issues and dilemmas that confront professional social workers.
Prereq: Enrollment in SocWork major. Not open to students with credit for 690.

**3201 Social Justice & Social Welfare Policy U 3**

This course will introduce students to social policy analysis and strategies to promote social justice through advocacy. Students will learn how social policy shapes the development, design, and delivery of social welfare programs and how policy contributes to social justice (and injustice). Students will learn different strategies to pursue social justice.Prereq: 1120, and enrollment in SocWork major.

**3301 Lifespan Development in Social Work U 3**

Explores human development across the lifespan, with an emphasis on conceptualizing individuals holistically, taking into account factors from various theories that may have relevance to each age group. Offers information about the importance of understanding lifespan development in social work, basics of lifespan development, research and the scientific method, and major theories and theorists.

**3401 Research & Statistics for Understanding Social Work Problems and Diverse Populations U 3**

This is the first course in the BSSW program sequence preparing students to effectively work with research evidence and statistics as social work professionals. Students will develop the requisite skills and knowledge for beginning to identify, assess, and apply existing bodies of evidence to answer questions about social work problems and diverse populations.Prereq or concur: Math 1060, or 1075 or above, or Stat 1350.01, Stat 1350.02, or Stat 1450 or above, or Math Placement Level R or above; and admission to the Social Work major. Not open to students with credit for 3401E.

**3402 Research & Statistics for Understanding Social Work Interventions U 3**

This is the second course in the BSSW program sequence preparing students to effectively work with research evidence and statistics as it applies to social work interventions at multiple levels. Students will develop the requisite skills and knowledge for beginning to identify, assess, and apply research evidence to inform and evaluate social work practices at multiple levels of intervention.Prereq: 3401.

# 10 Social Work

**3501 Building Engagement & Interpersonal Skills U 3**

This foundation course provides the opportunity for undergrad students in the professional social work program to focus on the understanding and use of core engagement and communication skills critical to social work practice. The course will engage each student in the learning and development of social work skills through didactic presentations, skill demonstrations, and experiential exercises.Prereq: Jr or Sr standing, and enrollment in SocWork major.

**3502 Generalist Practice with Individuals U 4**

Introduces students to the theories, knowledge and skills of generalist social work practice, with an emphasis on work with individuals. The content provides didactic and experiential learning of generalist practice skills that will facilitate and enhance the student's entry into the senior year field practicum and will serve as a foundation for entry level professional practice.Prereq or concur: 3501.

**3503 Social Work Practice with Diverse Populations U 3**

Foundation knowledge and a social work perspective for working with diverse populations, especially those who are oppressed and marginalized.Prereq or concur: 3501.

**3597 Adolescent Sexual Health, Sexuality, and Parenthood: A Global Perspective U 3**

This course is designed to provide a broad understanding of the biological, psychosocial, and cultural forces that influence adolescent sexual health, sexuality, and family formation decisions. International comparisons will be emphasized with respect to teenage sexual trends and national policies and programs designed to control adolescent and young adult sexual adaptations and fertility.

**3600 Conceptualizing Mental Health in Social Work U 3**

This course is designed to familiarize students with the major mental disorders, offer strategies for building on clients' strengths and resilience, provide basic tools for screening and referral, and impart knowledge of the mental health delivery system and its resources.Prereq: Admission to SocWork major.

**4188.01 Practicum Seminar I U 1**

Integration of knowledge and practice; problem solving and discussion of social work practice issues, values, and ethics. Taken concurrently with field practicum.Prereq: 3501 and 3502. Concur: 4189. Repeatable to a maximum of 2 cr hrs.

**4188.02 Practicum Seminar II U 1**

Integration of knowledge and practice; problem solving and discussion of social work practice issues, values, and ethics. Taken concurrently with field practicum.Prereq: 4188.01. Concur: 4189.

**4189 Field Practicum U 1 - 10**

Internship in a social work agency. Students integrate classroom knowledge and skills with practice experiences.Prereq: 3501 and 3502. Concur: 4188.01, 4188.02 or 4188.03. Prereq or concur: 4501 or 4502. Repeatable to a maximum of 10 cr hrs or 2 completions. This course is graded S/U.

**4501 Generalist Practice with Families U 3**

This course addresses professional values, knowledge, and skills essential for effective generalist social work practice with families. Emphasis is placed on family theory, models, and strategies for intervention, practice skills, and ethics necessary for beginning practice in social service agencies. The development of culturally competent practice is an integral part of this course.Prereq: 3501 and 3502.

**4502 Generalist Practice with Groups U 3**

This course will provide instruction on professional values, knowledge, and skills essential for effective intervention with small groups.Prereq: 3501 and 3502.

**4503 Generalist Practice with Organizations & Communities U 3**

The purpose of this course is to assist students in understanding the values, knowledge base, and skills associated with generalist practice when working with task groups, organizations, and communities. Emphasis will be placed on the identification of and utilization of those assessment & intervention skills which enable the social work practitioner to intervene on behalf of various populations.Prereq: 4502.

**5024 Social Work Licensure Exam Strategies and Skills U G 2**

Course provides instruction on test taking strategies and developing a study plan and learning content and strategies to pass the Bachelors/Masters level licensure exam.Prereq: Sr or Grad standing in Social Work. This course is graded S/U.

## Sociology

**1101 Introductory Sociology U 3**

Fundamental concepts of sociology and introduction to the analysis of social problems and interactions (e.g. wealth, gender, race, inequality, family, crime) using sociological theories.Prereq: Not open to students with credit for 1101H, 1101E, 1102, RurlSoc 1500, or equiv.

**3597.01 World Problems in Global Context U 3**

Sociological analysis of contemporary world societies - non-industrialized, industrializing, and industrialized - with special attention to major social institutions and patterns of social change.

## Spanish

**1101 Spanish I U 4**

Development of listening, reading, speaking, and writing skills in cultural contexts. Not open to native speakers of this language through regular course enrollment or EM credit or to students with 3 or more years of high school Spanish. Students with 0-2 years of high school Spanish must take the MultiCAT placement exam.Prereq: Spanish Language Placement Level 9, or permission of department. Not open to students with credit for 1101.01, 1102, 1102.01, 1103, 1103.01, 1113, 1155, or equiv. courses.

**1102 Spanish II U 4**

Further development of listening, reading, speaking, and writing skills in cultural contexts. Both classroom-based and 100% online sections available each semester. Not open to native speakers of this language through regular course enrollment or EM credit.Prereq: 1101, or 1101.01, or Spanish Placement Level 8. Not open to students with credit for 1102, 1102.01, 1103, 1103.01, 1103.51, 1155, or equiv. courses.

**1103 Spanish III U 4**

Continuing development of listening, reading, speaking, and writing skills in cultural contexts. Both classroom-based and 100% online sections available each semester. A grade of C- or above is required to continue to 2202 or 2213. Not open to native speakers of this language through regular course enrollment or EM credit.Prereq: 1102, or 1155 or equiv.; or Spanish MultiCAT or Spanish Heritage Language (SHL) Placement Level 7. Not open to students with credit for 1113 or 2202 or 2213.

## Statistics

**1350.01 Elementary Statistics U 3**

Introduction to probability and statistics, experiments, and sampling, data analysis and interpretation.Prereq: Math 1050, or Math Placement Level S, or permission of instructor. Not open to students with credit for GE Data Analysis course (AEDEcon 2005, AnimSci 2260, Astron 3350, Chem 2210, 2210H, ComLdr 3537, EarthSc 2245, Econ 3400, ENR 2000, Geog 2200.01, 2200.02, HCS 2260, IntStds 3400, Ling 2051, 2051H, Philos 1520, Physics 3700, PolitSc 3780, 4781, Sociol 3549, Stat 1350, 1350.01, 1430, 1430.01, 1430.02, 1430H, 1450, 1450.01, 1450.02, 2450, 2450.01, 2450.02, 2480, 2480.01, 2480.02, 3450, 3450.01, 3450.02, 3460, 3470, 3470.01, 3470.02, 4202, 5301, or 5302).

**1350.02 Elementary Statistics U 3**

Introduction to probability and statistics, experiments, and sampling, data analysis and interpretation. Offered online.Prereq: Math 1050, or Math Placement Level S, or permission of instructor. Not open to students with credit for GE Data Analysis course (AEDEcon 2005, AnimSci 2260, Astron 3350, Chem 2210, 2210H, ComLdr 3537, EarthSc 2245, Econ 3400, ENR 2000, Geog 2200.01, 2200.02, HCS 2260, IntStds 3400, Ling 2051, 2051H, Philos 1520, Physics 3700, PolitSc 3780, 4781, Sociol 3549, Stat 1350, 1350.01, 1430, 1430.01, 1430.02, 1430H, 1450, 1450.01, 1450.02, 2450, 2450.01, 2450.02, 2480, 2480.01, 2480.02, 3450, 3450.01, 3450.02, 3460, 3470, 3470.01, 3470.02, 4202, 5301, or 5302).

**1430.01 Statistics for the Business Sciences U 4**

Fundamentals of probability and statistics: Data collection and summaries, random variables, simple linear regression, two-way tables, conditional probability, sampling distributions, confidence intervals, hypothesis tests, analysis of variance. In-person recitation.Prereq: Math 1131, 1141, 1151, 1156, 1161.xx, or 1181H, or permission of instructor. Not open to students with credit for 1430, 1430.02, or BusMgt 2320.

**1450.01 Introduction to the Practice of Statistics U 3**

Algebra-based introduction to data analysis, experimental design, sampling, probability, inference, and linear regression. Emphasis on applications, statistical reasoning, and data analysis using statistical software.Prereq: Math 1116 or 1130 or above, or Math Placement Level L or M, or permission of instructor. Not open to students with credit for 1450, 1450.02, 2450, 2450.01, 2450.02, 2480, 2480.01, or 2480.02.

**3440 Statistics in Quality U 3**

Descriptive statistics; introduction to probability; Bayes theorem; discrete and continuous random variables, expected value, probability distributions; interval estimation for means and proportions; hypotheses tests for means and proportions; least squares regression; one- and two-way anova; control charts; process capability indices.Prereq: Math 1152, 1154, 1155, 1161.xx, 1172, or equiv, or permission of instructor. Not open to students with credit for 3450, 3450.01, 3450.02, 3460, 3470, 3470.01 or 3470.02.

## Teaching and Learning Education

**2189 Field Experience U 1 - 2**

The TLED 2189 field experience is designed to provide undergraduate students, in pre-education programs, with an opportunity to work with youth within a professional setting in a school, tutoring environment or community agency.Prereq: Permission of instructor. Not open to students with credit for EDUTL 2189. Repeatable to a maximum of 15 cr hrs or 15 completions.

**2368 Introduction to Children's Literature U 3**

This is a survey course in which students study the historical and contemporary elements of literature intended for children, including picturebooks; traditional tales; novels of realism, and fantasy; nonfiction; poetry; and multicultural books.Prereq: English 1110, or equiv. Not open to students with credit for EduTL 2368.

**3160 Application of Development in Learning Contexts U 3**

Designed for students to apply theories and research of child growth and development in multiple learning contexts.Prereq: Not open to students with credit for EduTL 3160.

**3356 Literature for Adolescents** U 3

Literature for individual, group, and whole-class reading in junior and senior high schools; interest factors and literary value as criteria for selection; bibliographic aids.Prereq: English 1110.xx or equivalent. Not open to students with credit for 3356E, EduTL 3356 or 3356E.

**4191 Internship** U 1 - 15

Internship in an educational or community setting.Prereq: Permission of instructor. Not open to students with credit for EduTL 4191. Repeatable to a maximum of 15 cr hrs or 15 completions.

## Teaching and Learning Teacher Education

**3189.01 Field Experience: Early Childhood Education** U 1 - 2

This field experience is designed as a practice-based companion to the EC Pedagogy class.Prereq: Admission to Early Childhood Education Major. Not open to students with credit for EduTL 3189.01. Repeatable to a maximum of 4 cr hrs or 4 completions.

**3189.02 Field Experience: Middle Childhood Education** U 1 - 2

The experience is designed to provide : lesson planning, teaching, and classroom management; student learning, interests, and perspectives; (3) the requirements of being a professional educator; and effectively bringing together the work done in a university classroom with work done in grade 4-9 classrooms.Prereq: Admission to Middle Childhood Education Major. Not open to students with credit for EduTL 3189.02. Repeatable to a maximum of 4 cr hrs or 4 completions.

**3189.09 Field Experience: Child and Youth Studies** U 1 - 2

Field experience designed to provide undergraduate students in the Child & Youth Studies program an opportunity to work with a cooperating professional within an educational or community organization focusing on teaching & learning.Prereq: Admission to Child and Youth Studies Major. Not open to students with credit for EduTL 3189.09. Repeatable to a maximum of 4 cr hrs or 4 completions.

**4189.01 Advanced Field Experience: Early Childhood Education** U 1 - 4

The field experience is designed to provide: classroom practices in lesson planning, teaching, and guidance and discipline; student learning, interests, and perspectives; the official and unofficial requirements of being a professional educator; and how you can effectively bring together the work done in a university classroom with your work in classrooms with students age 3 to grade 3.Prereq: Admission to Early Childhood Education Major. Not open to students with credit for EduTL 4189.01 Repeatable to a maximum of 12 cr hrs or 3 completions.

**4189.02 Advanced Field Experience: Middle Childhood Education** U 1 - 4

The field experience is designed to provide: best practices in lesson planning, teaching, and classroom management; student learning, interests, and perspectives; the official and unofficial requirements of being a professional educator; and how you can effectively bring together the work done in a university classroom with grade 4-9 classrooms.Prereq: Admission to Middle Childhood Education Major. Not open to students with credit for EduTL 4189.02. Repeatable to a maximum of 12 cr hrs or 3 completions.

**5005 Equity, Diversity, and Justice in Education** U G 3

Focuses on issues of diversity, equity, justice, teacher agency, and interdisciplinary approach to curriculum and pedagogy. Emphasis is placed on the role of teachers in affirming students' identities and lived experiences and its influences on approaches to teaching and learning in diverse educational settings.Prereq: Not open to students with credit for EduTL 5005.

**5101 Teaching and Learning with Drama: Introduction** U G 3

Introduction to the use of drama and social imagination in education.Prereq: Jr or Sr standing with some field experience, or experienced teacher. Not open to students with credit for EduTL 5101. Repeatable to a maximum of 6 cr hrs.

**5102 Teaching & Learning of Literacy in Grades Pre K-5** U G 3

This methods course builds on and applies what you have learned in your prior literacy coursework. It is designed to help you become an intentional and responsive literacy teacher.Prereq: 5469, and enrollment in Education major or Master of Education. Not open to students with credit for EduTL 5102.

**5108 Teaching and Learning of Mathematics in Grades Pre-K - 5** U G 3

Prepares preservice teachers with knowledge, skills of, and ability to use standards, learning theories, pedagogies, assessment, and technology for the teaching and learning of Pre-K - 5 early childhood mathematics in a diverse classroom.Prereq: Admission to Early Childhood teaching licensure program, or permission of instructor. Not open to students with credit for EduTL 5108.

**5123 Early Childhood Pedagogy** U G 3

Pedagogy I explores sociocultural perspectives on teaching and learning in early childhood and elementary education, the role of teacher as researcher/inquirer, and the ways in which sociocultural pedagogies interface with standard-based education.Prereq: Admission to major or M.Ed. Not open to students with credit for EduTL 5123.

**5129 Teaching and Learning of Science in Grades Pre K - 5** U G 3

This course is designed to prepare early childhood teacher candidates to teach PreK-5 students science.Prereq: Enrollment in Education major or Master of Education. Not open to students with credit for EduTL 5129.

**5137 Teaching and Learning of Social Studies Grades Pre-K - 5** U G 3

Designed to provide opportunities to examine interesting and effective social studies content knowledge, cultural understandings, and pedagogies for the early childhood learner within global contexts.

**5191.01 Supervised Student Teaching Internship: Early Childhood Education** U G 3 - 15

Student teaching is designed to assess and support preservice preK-3rd grade teachers as they develop the necessary knowledge, skills, and dispositions required for beginning level teachers.Prereq: Admission to Early Childhood Education major or MEd program. Not open to students with credit for EduTL 5191.01. Repeatable to a maximum of 30 cr hrs or 2 completions.

**5191.02 Supervised Student Teaching Internship: Middle Childhood Education** U G 3 - 15

Student teaching is designed to assess and support preservice 4th-9th grade teachers as they develop the necessary knowledge, skills, and dispositions required for beginning level teachers.Prereq: Admission to Middle Childhood Education Major or MEd program. Not open to students with credit for EduTL 5191.02. Repeatable to a maximum 30 cr hrs or 2 completions.

**5195.01 Reflective Seminar: Early Childhood Education** U G 1 - 4

This course serves as the place for mediating learning & applying it to the practical. You will engage in reading, discussion, & reflection to develop your understanding of the relationship between what you learn in the university classroom & what you experience in the elementary classroom.Prereq: Admission to Early Childhood Education Major or MEd program. Not open to students with credit for EduTL 5195.01. Repeatable to a maximum of 10 cr hrs or 5 completions. This course is graded S/U.

**5195.02 Reflective Seminar: Middle Childhood Education** U G 1 - 4

Reflective Seminar is part one of a 3-part seminar that takes place over the course of 3 semesters. This course includes what is often viewed as the more traditional 'science' of teacher preparation.Prereq: Admission to Middle Childhood Education Major or MEd program. Not open to students with credit for EduTL 5195.02. Repeatable to a maximum of 10 cr hrs or 5 completions. This course is graded S/U.

**5195.09 Reflective Seminar: Child and Youth Studies** U G 1 - 4

This course is designed to assess and support student in their final year as they develop the necessary knowledge, skills, and dispositions required for entry level education professionals.Prereq: Admission to Child and Youth Studies Major. Not open to students with credit for EduTL 5195.09. Repeatable to a maximum of 10 cr hrs or 5 completions. This course is graded S/U.

**5220 Foundations of Middle Childhood Teaching and Learning** U G 3

Introduces the foundations and major concerns in middle childhood education using contemporary research, scholarship, and practice, and exploring traditional and newer course materials.Prereq: Advanced Major in Middle Childhood Education. Not open to students with credit for EduTL 5220.

**5225 Diverse Literature and Comprehension - Elementary-Middle Education** U G 3

Meets state requirements for understanding theory and methods linking the teachers' understanding of diverse literature with comprehension theory and practice and the related construction of literate environments.Prereq: Not open to students with credit for EduTL 5225.

**5226 Composing Print + Digital Multimodal Texts** U G 3

This course focuses on interactive, creative, critical, dialogic approaches for teaching and learning composing in both print and digital multimodal formats, and is particularly applicable to early and middle childhood classrooms.Prereq: Not open to students with credit for EduTL 5226.

**5230 Language Arts Methods for Preservice Middle Childhood Teachers** U G 3

Preservice teachers study methods for teaching middle childhood students' reading and writing. They explore the significance of students' interests, language, and communities to their knowledge and meaning-making of the Language Arts.Prereq: Not open to students with credit for EduTL 5230.

**5270 Mathematics Methods for Preservice Middle Childhood Teachers** U G 3

Preservice teachers study methods for teaching middle childhood mathematics. These methods include instruction, assessment, and learning theory to support the teaching and learning of mathematics in grades 4 through 9.Prereq: Not open to students with credit for EduTL 5270.

**5275 Science Methods for Preservice Middle Childhood Teachers** U G 3

This course provides future middle childhood science teachers with the skills, knowledge, and resources for providing quality learning experiences for all students. Course activities will focus on the preparation and implementation of inquiry-based instruction. This course will also cover issues such as styles of inquiry, standards-based teaching, lesson planning, assessment, and differentiation.Prereq: Not open to students with credit for EduTL 5275.

**5280 Social Studies Methods for Preservice Middle Childhood Teachers** U G 3

Preservice teachers study planning, teaching and assessing of students' learning of social studies education, emphasizing the value of using effective and diverse teaching strategies and meaningful learning activities appropriate for grades 4-9.Prereq: Not open to students with credit for EduTL 5280.

**5468 Foundations of Reading and Literacy U G 3**

Introduction to the theories and practices of teaching and learning of literacy for children in early and middle childhood. Major themes of the course are a child-centered philosophy of literacy instruction and diversity awareness - the need for teachers to be aware of the diversity of backgrounds and abilities that children bring to the classroom and of strategies for dealing with that diversity.Prereq: Not open to students with credit for EduTL 5468.

**5469 Language and Word Study for All Learners U G 3**

This course provides a detailed examination of the ways that oral and written languages work and how this supports development of English word reading and spelling skills for learners who are monolingual speakers of Standard English as well as those who speak other languages and varieties of English.Prereq: 5468. Not open to students with credit with EduTL 5469.

## Theatre

**2000.11 Theatre Production Lab: Box Office U 1**

Provides experience in box office activities.Repeatable to a maximum of 6 cr hrs.

**2100 Introduction to Theatre U 3**

A study of the art and profession of theatre, with an emphasis on evaluating and appreciating live performance, theatre's cultural importance, and its relationship to issues of social diversity. Students study performance conventions, texts, & spaces from ancient times to present day. While not an acting class, students get firsthand experience in the collaborative process of theatre creation.Prereq: Not open to students with credit for 2100H or 2101H.

**2811 The Craft of Acting U 3**

An introductory acting class exploring the basic techniques of imagination, concentration, character development, and script analysis through work on monologues, scenes, and plays.Prereq: Not open to students with credit for 280.

**3711 Theatre, Identity, and Citizenship in Eastern Europe U 4**

How have theatre and performance reflected on issues of citizenship in Eastern Europe? How have they wrestled with the national, ethnic, gender, religious, and cultural identities of their authors, performers, and audiences? This course approaches these questions from multiple angles - through readings and discussions as well as theatrical practice of staging scenes from our plays.Prereq: Not open to students with credit for Slavic 3711. Cross-listed in Slavic.

**4000.08 Advanced Production Lab: Acting U 1 - 3**

Individual theatrical performance and production activities at an advanced level under faculty supervision.Prereq: Permission of instructor, by audition. Repeatable to a maximum of 18 cr hrs or 8 completions.

**4000.09 Advanced Production Lab: General U 1 - 3**

Individual theatrical performance and production activities at an advanced level under faculty supervision.Prereq: Permission of instructor. Repeatable to a maximum of 18 cr hrs or 8 completions.

## Women's, Gender, and Sexuality Studies

**2282 Introduction to LGBTQ+ Studies U 3**

Introduces and problematizes foundational concepts of the interdisciplinary field of LGBTQ+ studies, highlighting the intersections of sexuality with race, class, and nationality.Prereq: English 1110.xx; or GE foundation writing and info literacy course; or permission of instructor. Not open to students with credit for English 2282. Cross-listed in English.

**3303 Gender, Race & Leadership U 3**

This course explores citizenship and leadership by analyzing case studies of leadership from women and people of color throughout American history. Using both activist and scholarly perspectives, students will explore and challenge modes of leadership through the intersectional lens of race and gender, with an emphasis on the role of citizens and citizenship in what it means to be a leader.Prereq: Not open to students with credit for 4403.



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