Course Descriptions

ABP 101 Covenant and Community: An Introduction to the Bible (3 SH)
This course surveys the content and the backgrounds of the Old and New Testaments (the Jewish Bible and the Christian Bible). It explores the themes that are developed through this library of writings, and how they come together to tell a broad story of God's work in the world. It invites students to consider the meaning of the Bible's story for our world.
Core: ABP

ABP 201 Ethics in the Way of Jesus (3 SH)
This course seeks to discern how following Jesus' way of peace with justice in the world is essential for interpreting the Bible on contemporary moral questions, in all aspects of life. The class will emphasize what it means to think ethically in a variety of areas, within the context of the Anabaptist tradition.
Core: ABP

ACTG 221 Financial Accounting (3 SH)
A first course in accounting for business majors and minors as well as a useful introduction to accounting principles and practices and to interpreting financial statements for students in all majors. No background in accounting is assumed. The course includes a description and derivation of financial statements prepared by accountants and a discussion of a conceptual framework which provides rationale for accounting practices.

ACTG 222 Managerial Accounting (3 SH)
This course provides a conceptual understanding of the elements of accounting for management planning, budgeting, control and decision-making. Topics include cost behavior, cost systems, CVP analysis, activity-based costing/management, and capital budgeting. Prerequisite: ACTG 221.

ACTG 321 Intermediate Accounting I (3 SH)
A comprehensive study of the methods of financial accounting. Special emphasis is given to the theoretical basis for accounting. Topics include: time value of money, financial statements, accounting cycle, and accounting for current assets. Prerequisite: ACTG 222 and competency in Excel. (Fall 2021)
Offered in alternate years

ACTG 322 Intermediate Accounting II (3 SH)
Continuation of ACTG 321. Continued study of theory covering such topics as fixed assets, current and long-term liabilities, investments, error analysis, revenue recognition, and statement of cash flow. Prerequisite: ACTG 321. (Spring 2022)
Offered in alternate years

ACTG 341 Cost Accounting (3 SH)
Methods and procedures of ascertaining and distributing the costs of production materials, labor and overhead, the securing of unit costs under job order, and process methods of production. Prerequisite: ACTG 222 and competency in Excel. (Spring 2022)
Offered in alternate years

ACTG 421 Federal Income Tax (3 SH)
Emphasis on income tax provisions as they relate to individuals. There is some emphasis on tax provisions affecting businesses. Prerequisite: ACTG 222. (Fall 2020)
Offered in alternate years

ACTG 422 Intermediate Accounting III (3 SH)
Continuation of ACTG 322. Topics covered are issues related to intangible assets, income tax accounting, accounting for leases, shareholder equity, dilutive securities and an introduction to some advanced accounting topics. Prerequisite: ACTG 322. (Fall 2020)
Core: WI
Offered in alternate years

ACTG 432 Advanced Accounting (2 SH)
A study of advanced accounting procedures as they apply to business combinations. Other topics include partnership accounting and foreign currency transactions including hedging and foreign currency financial statement translation. Prerequisite: ACTG 422 (Spring 2021)
ACTG 433 Nonprofit and Government Reporting (2 SH)
Emphasizes accounting issues unique to nonprofit organizations, including non-exchange transactions and lack of ownership interest. Content coverage also includes accounting and reporting for state and local governments and other nongovernmental organizations (NGOs). (Spring 2021) Offered in alternate years

ACTG 445 Seminar in Accounting (2 SH)
This course is the culmination of theory, designed to synchronize concepts learned in the accounting curriculum while incorporating practical application. Taken during the senior year, this course will focus on current issues in accounting and best practices in industry through cases, simulations, research, and community engagement. (Spring 2022) Offered in alternate years

ACTG 451 Auditing (3 SH)
Study of the work of an accountant as it relates to the examination and attesting to the reliability of management's financial reports. Topics include standards, legal liability, internal control, sampling, evidence and the auditor's report. Prerequisite: ACTG 321. (Spring 2021) Offered in alternate years

ACTG 481 Accounting Internship (1-3 SH)
Work experience designed to integrate practice and theory and to give accounting majors insight into current policies, procedures and problems in all types of organizations. Frequent consultation with and written reports to the faculty advisor guide the student's experience. Travel and personal expenses are the student's responsibility. Can be done during the summer. Grading is on a Pass/Fail basis. This is highly recommended for accounting majors. Prerequisite: admission to the department and junior or senior standing; application at least one semester in advance; and a department GPA of at least 2.7. Core: CL

ACTG 499 Independent Study (1-3 SH)

ART 141 Drawing (3 SH)
This course is designed to develop confidence in drawing and build basic drawing and perceptual skills. A variety of drawing media, techniques and conceptual approaches will be used.
Core: CA
Offered through Lancaster

AVFO 120 Private Pilot Ground (3 SH)
This ground training course provides the student with the aeronautical knowledge needed to pass the FAA Private Pilot Knowledge Test, correctly answer subject matter questions during the oral portion of the Private Pilot Practical Test, and operate safely as a Private Pilot in the National Airspace System. Offered through Lancaster

AVFO 121 Private Pilot Flight (3 SH)
This flight training course provides the student with the experience and proficiency necessary to meet the certification requirements of an FAA Private Pilot Certificate with Airplane Single-Engine Land Category and Class ratings (ASEL). To complete this course, students will pass the Final Progress Check and the FAA Private Pilot Oral/Practical Test. Offered through Lancaster

AVFO 220 Instrument Rating Ground School (3 SH)
This ground training course provides the student with the aeronautical knowledge needed to pass the FAA Instrument Rating Knowledge Test, correctly answer subject matter questions during the oral portion of the Instrument Rating Practical Test, and operate safely as Instrument Rated Pilot in the National Airspace System. Offered through Lancaster

AVFO 221 Instrument Flight Training (3 SH)
This flight training course provides the student with the experience and proficiency necessary to meet the certification requirements for adding an FAA Instrument Rating-Airplane to an existing Private Pilot Certificate. To complete this course, students will pass the Final Progress Check and the FAA Instrument Rating Oral/Practical Test.

Offered through Lancaster

AVFO 320 Commercial Pilot Ground (3 SH)
This ground training course provides advanced aeronautical knowledge in aerodynamics, regulations, meteorology, aircraft systems, and airspace operations. This course provides the student with the aeronautical knowledge needed to pass the FAA Commercial Pilot Knowledge Test, correctly answer subject matter questions during the oral portion of the Commercial Pilot Practical Test, and operate safely as a Commercial Pilot in the National Airspace System.

Offered through Lancaster

AVFO 321 Commercial Flight I (3 SH)
This flight training course is the first of three consecutive courses that provide the student with the experience and proficiency necessary to meet the certification requirements of an FAA Commercial Pilot Certificate with Airplane Single-Engine Land Category and Class ratings (ASEL). Commercial Pilot flight maneuvers and complex and technically advanced airplane (TAA) systems and operations will be introduced. To complete this course, students will pass the Stage One Check.

Offered through Lancaster

AVFO 322 Commercial Flight II (3 SH)
This flight training course is the second of three consecutive courses that provide the student with the experience and proficiency necessary to meet the certification requirements of an FAA Commercial Pilot Certificate with Airplane Single-Engine Land Category and Class ratings (ASEL). Commercial Pilot flight maneuvers and complex and technically advanced airplane (TAA) systems and operations are reviewed, and cross-country navigation is emphasized. To complete this course, students will pass the Stage Two Check.

Offered through Lancaster

AVFO 323 Commercial Flight III (3 SH)
This flight training course is the third of three consecutive courses that provide the student with the experience and proficiency necessary to meet the certification requirements of an FAA Commercial Pilot Certificate with Airplane Single-Engine Land Category and Class ratings (ASEL). Commercial Pilot flight maneuvers, complex and technically advanced airplane (TAA) systems and operations, and cross-country navigation are reviewed. To complete this course, students will pass the Stage Three Check, the End-of-Course Check, and the FAA Commercial Pilot Oral/Practical Test.

Offered through Lancaster

AVFO 420 Flight Instructor (3 SH)
This ground training course provides the student with the aeronautical knowledge needed to pass the FAA Fundamentals of Instruction and Flight Instructor Knowledge Tests and correctly answer subject matter questions during the oral portion of the Flight Instructor Practical Test.

Offered through Lancaster

AVFO 421 Flight Instructor Flight (3 SH)
This flight training course provides the student with the experience and proficiency necessary to meet the certification requirements of the FAA Flight Instructor Certificate - Airplane Single-Engine. To complete this course, students will pass the End-of-Course Check and the FAA Flight Instructor Oral/Practical Test.

Offered through Lancaster

AVIA 110 Becoming Aviators: Introduction to Aeronautics (4 SH)
This course provides an introduction to, and survey of, the field of aeronautics. It includes a study of the history and trends of aerospace activity, including airline operations, military operations, and general aviation. Each student authors a paper and oral presentation based on their research of a particular piloting vocation.

Offered through Lancaster

AVIA 120 Aircraft Systems (3 SH)
The objective of this course is to provide students with sufficient background knowledge in aircraft systems and their operation, as required by various aviation occupations. This course involves a comprehensive study of aircraft systems and components at the technical level. Areas of study include: aircraft electrical systems; piston engine ignition systems; turbine aircraft ignition systems and operations; aircraft hydraulic and pneumatic systems; aircraft fuel systems; aircraft propellers and systems; aircraft pressurization and environmental systems; ice and rain control systems; fire protection systems.

Offered through Lancaster
AVIA 130 Meteorology (3 SH)
This course provides students with an understanding of aviation weather theory as it applies to flight operations. As future aviation professionals, students will learn how pilots, dispatchers, air traffic controllers and others access and utilize aviation weather information. In addition, the available aviation products will be discussed as applies to flight planning, en route weather decisions, and avoidance of weather hazards. This course fulfills an EMU Core LOM-Aviation requirement.
Offered through Lancaster

AVIA 220 Aerodynamics and Performance (3 SH)
This course provides a study of applied fluid mechanics and aircraft aerodynamic behavior. It also reviews the mechanics and performance of turbine and reciprocating aircraft engines. Exercises in aircraft performance problems are conducted, and a group research project on environmental sustainability in aviation is accomplished.
Offered through Lancaster

AVIA 320 Flight Safety (3 SH)
This course examines aspects of aviation safety through a presentation of factors, procedures, and aircraft accident investigation case studies relating to aviation safety, including risk management assessment, hazard identification analysis, safety program development, called Safety Management Systems (SMS) by Federal Aviation Administration, and evaluation of outcomes.
Offered through Lancaster

AVIA 330 Aviation Law and Regulatory Compliance (3 SH)
This course examines the evolution of federal civil aviation regulations in the United States. Students will examine the past and present problems prompting regulation of the industry, the resultant safety, legislation, airport development, funding legislation and international aviation legislation. Students will study Title 14 of the Code of Federal Regulations (14 CFR), previously called the Federal Aviation Regulations (FAR); the application of 14 CFR Parts 1, 61, 91, 141, NTSB Part 830 and various other 14 CFR Parts. A discussion of the history of aviation regulations, the rulemaking process, letters of interpretation and enforcement will be included.
Offered through Lancaster

AVIA 400 Air Transport Advanced Subjects (3 SH)
This course is a survey of 14 CFR Part 121 passenger and cargo airline operations. Students will study topics related to the following functional areas: flight operations, dispatch, customer service, cargo carriage, aircraft maintenance, and cabin safety. Students will visit the operations and maintenance facilities of a 14 CFR Part 121 air carrier organization and will complete a research project and paper based on a Part 121 operation. Students will receive an orientation in a full-motion jet simulator.
Offered through Lancaster

AVIA 401 General Aviation Advanced Subjects (3 SH)
This course prepares students to pursue a career in general aviation, to include missions and humanitarian flying. Students will research general aviation vocations and organizations and will select a particular organization that conducts types of operations in which they are interested in serving. Students will complete a paper on that organization deriving from research about their organizational history, past and current key persons, financial structure, and nature and location of their operations. Students will receive assistance in applying for the internships in which they will engage in AVIA 430 - Aviation Internship in the Spring Semester of their senior year. Students will take flight training in a specialty subject such as, but not limited to, Instrument Instructor Rating, tailwheel endorsement, or mountain flying orientation.
Offered through Lancaster

AVIA 420 Human Factors in Aviation (3 SH)
This course studies the complexities of human factors in aviation research as it draws on diverse areas of human physiology, basic learning theory, aviation safety, and pilot training. In addition to surveying the study of human behavior as it relates to the aviator's adaptation to the flight environment, the course will examine human factors in the aviation industry, such as decision-making, situational awareness, crew resource management, fatigue, workload management, human performance and human/machine interaction. Safety management systems (SMS) in the aviation industry with a focus on proactive safety management will be reviewed, as well as the NTSB investigation process and the Aviation Safety Reporting System. Cases in these respective databases will be reviewed, with a focus on identification and mitigation of risk.
Offered through Lancaster

AVIA 430 Aviation Internship (6 SH)
Students in the aviation concentration will complete a supervised internship with an established aviation company or firm. Standard internships run during a full 15 week semester and may be completed in fall, spring, or summer. An internship position should be secured prior to the end of the spring semester of the junior year. Each internship must be approved by the program director. For successful completion of this course, the student will: compile a resume and cover letter prior to seeking an internship; seek and acquire an internship position with the approval of the program director; submit the EMU at Lancaster Internship Proposal Form; be under the supervision of a professional in the aviation or space industry; work a minimum of 250 hours in an approved operation; complete all assignments and routinely communicate with the program director during the internship experience.
Offered through Lancaster
BIOCH 152 Human Biochemistry (2 SH)
Study of organic and inorganic compounds, especially those important in cellular intermediary metabolism and other biological processes. Prerequisite: CHEM 105 OR 2 years of high school chemistry (or AP Chemistry). This course meets for 7 weeks.

BIOCH 318 Biochemistry Molecular Biology Lab (2 SH)
A hands-on overview of several major biochemistry and molecular biology laboratory techniques, including protein and nucleic acid purification, expression, and characterization; enzyme kinetics; gene amplification, cloning, and manipulation; and protein and gene bioinformatics. Each student will undertake a short research project. Prerequisites: an annual safety training outside of class, BIOL 240, and CHEM 315.

BIOCH 376 Foundational Biochemistry (3 SH)
A survey of structure – function relationships of biological molecules and systems. Emphasis is placed on enzymology, intermediary metabolism, and metabolic control. Laboratory focuses on protein chemistry and involves an extended independently guided research project in which students develop their own hypotheses and test them using the techniques learned early in the course. Prerequisite: CHEM 316.

BIOCH 398 Advanced Cell Biology (3 SH)
A study of cellular architecture, communication, transport, motility, division, growth and death. Particular emphasis is placed on the study of cancer at the cellular level, and on a quantitative (mathematical) understanding of cellular movements. Students read and report on research articles. Prerequisite: BIOL 240. (Fall 2022)
Core: WI

Offered in alternate years

BIOCH 438 Molecular Genetics (3 SH)
A study of the mechanisms of gene structure, stability, replication, transmission, and expression in eukaryotes. Themes include molecular evolution, viruses (including HIV), and heritable diseases. Students read and report on research articles. Prerequisite: BIOL 240. (Spring 2022)

Offered in alternate years

BIOCH 479 Biochemistry/Chemistry Research (1-3 SH)
Research under the direction of a faculty member. Permission required since enrollment is limited. Prerequisite: an annual safety training outside of class.

BIOCH 499 Independent Study (3 SH)

BIOL 105 Science and Society (2 SH)
This course uses examples from recent news events as a means of introducing the nature of science and scientific inquiry and the role of science in society, culture, politics, and policy. This course meets for 7 weeks
Core: NS

BIOL 112 Human Anatomy and Physiology I (3 SH)
Lecture and laboratory study of the cellular, histological, structural and functional aspects of human body systems. Homeostasis and regulatory principles are emphasized in illustrating normal physiological systems. Laboratory sessions utilize physiologic instrumentation, dissection of laboratory animals and observation of cadavers to demonstrate anatomic and physiological concepts. High school advanced biology or BIOL 155 and high school chemistry or CHEM 105 or CHEM 155 are recommended as preparation for this course. Prerequisite: an annual safety training outside of class.

BIOL 122 Human Anatomy and Physiology II (3 SH)
A continuation of BIOL 112. Courses may be taken out of sequence only with instructor permission. Prerequisite: an annual safety training outside of class.

BIOL 145 Nutrition Fundamentals (2 SH)
Basic principles of normal human nutrition with emphasis on energy and the nutrients— their properties, sources, functions and dietary requirements. Current and controversial issues in nutrition are included. This course meets for 7 weeks
Core: NS
BIOL 155 Biological Explorations (3 SH)
Introductory course to biological science, with an emphasis on organism adaptations and life cycles (plant and animal, including human). The course also covers the philosophical and methodological foundations of biology, the scientific method, and an introduction to evolutionary biology. The course consists of lectures, interactive workshops, laboratory experiences, and discussions of current science news and issues. If students are taking BIOL 155 as preparation for BIOL 173 they must achieve a B or greater in this course. Prerequisite: an annual safety training outside of class.
Core: NS

BIOL 161 Food and Population (3 SH)
An examination of the biological and demographic aspects of the world food and population problems, including economic, political, ethical and theological contributions to the problems and solutions. Current international events that shape global food and population problems will also be addressed.
Core: NS, CC

BIOL 173 Concepts in Biology: Unity and Diversity of Life (4 SH)
Introductory course for biology majors or those interested in the biology major, emphasizing science as a method of learning about life. This course focuses on two biological issues of current interest to society—the impact of invasive species on ecosystems, and the challenge of infectious diseases. Lecture and laboratory experiences use these two issues as a springboard for learning fundamental concepts and methods in biology. In addition, the study of evolutionary biology is interwoven throughout the course, including issues related to the intersection of science and faith. Emphasis is placed on applying the scientific method, using instrumentation and basic laboratory skills for experimentation, writing scientific reports, and using computers for data analysis and presentation. This course is required for students continuing in the biology major. Prerequisite: an annual safety training outside of class.
Corequisite: BIOL 174
Core: NS

BIOL 174 Concepts in Biology Seminar (1 SH)
This recitation seminar is required for all first-year students enrolled in BIOL 173 and recommended for second-year and transfer students. Small group work will include career exploration, examination of the primary literature, and tutorials and problem-based approaches to reinforce and refine concepts and skills developed in the BIOL 173 lecture and lab.

BIOL 205 Introduction to Microbiology (3 SH)
An introduction to the biology and the medical impact of viruses, bacteria, algae, fungi and protozoa, with laboratory emphasis on bacteria. Prerequisite: an annual safety training outside of class and BIOCH 152 or BIOL 173.

BIOL 209 Medical Terminology (2 SH)
This course is designed to provide the medical language and nomenclature background for students who plan to enter health care professions. Study of the uses of prefixes, suffixes, and word roots to formulate words describing meaningful medical conditions is emphasized as well as learning their definitions, correct pronunciation, and spelling. Using major body systems as a guide, students will learn the basic anatomic and medical terms related to the muscular, skeletal, respiratory, circulatory, digestive, reproductive, and urinary systems. No prerequisite. (Fall 2021)

BIOL 215 Organismal Biology (4 SH)
A survey of the diversity of life, introducing microbiology, botany and zoology through a focus on evolutionary history and comparative physiology and bioenergetics. Prerequisite: BIOL 173 and an annual safety training outside of class.

BIOL 219 Life Science Practicum (1 SH)
Experiential community learning in areas related to future vocation is coordinated with classroom instruction and reflection. Assigned shadowing or interactive experiences require 25-30 hours/semester outside of class. Typical experiences may involve hospitals, biomedical organizations, clinics, health departments, or life science education. Prerequisite: satisfactory completion of at least two biology courses and instructor permission.
Core: CL

BIOL 235 Ecology: Adaptation and Environment (4 SH)
A foundation course in basic ecology and evolutionary biology with an emphasis on adaptations of animal and plants to their environment. The role of natural and sexual selection, species interactions, population dynamics, and landscape and community processes are investigated through a variety of projects, simulations, experiments, and field trips to representative ecosystems. Required for students continuing in the biology major, building on the experimental and investigative skills introduced in BIOL 173. Prerequisite: BIOL 173 and an annual safety training outside of class.
Core: WI
BIOL 240 Molecular and Cellular Biology (4 SH)
An examination of various aspects of cell biology, introducing basic understandings of biochemistry and cell biology. Through classroom discussions and laboratory experimentation, students will become familiar with the current techniques and technological advances for the study of the biology of living cells. Prerequisite: BIOL 173 and an annual safety training outside of class.

BIOL 255 Biology Research Seminar (1 SH)
This course is intended for sophomores but may be taken during the second semester of the first year. It is designed to provide an overview of the fundamental and theoretical aspects of research as well as the nature of science. Students will learn to evaluate primary literature, how to assess and interpret data and how to develop hypotheses from that data. Students will learn how to design a research project to fill the gaps in the existing work and write a research proposal. Students will be evaluated on their interpretative skills as well as their scientific reading, writing, and oral presentations. This course meets for 7 weeks.

BIOL 305 Biology Professions Seminar (1 SH)
Experiential community learning related to future biology vocations is coordinated with classroom instruction and reflective writing based on readings and experiences. Typical experiences include formal conversations with biology and other STEM alumni, tours of regional biology-related business or laboratories, and presentations by STEM professionals. Students will develop potential career plans and expand their understanding of possible vocations within STEM, including various health professions. Recommended for juniors and above. Prerequisite: BIOL 173 or equivalent

BIOL 317 Developmental and Stem Cell Biology (4 SH)
This course provides students with an introduction to development and stem cell biology that emphasizes the molecular influences and cellular interactions involved in specification, differentiation and regeneration. Topics include: descriptive and experimental approaches in development, methodologies in stem cell research, embryonic and adult stem cells, stem cell cloning, cell reprogramming and cancer stem cells. Laboratory sessions will explore topics at the intersection of developmental biology and stem cells, and will use a variety of model organisms. A mini-research project is required. Prerequisite: an annual safety training outside of class and BIOL 112 or 173 or equivalent.

BIOL 327 Advanced Microbiology (3 SH)
A comprehensive study of the field of microbiology, emphasizing the principles of medical microbiology and human symbioses. Included in the discussion will be additional focus on disease, treatment, emerging infectious diseases, biotechnology and global public health. Topics will be discussed using lectures, short lab periods, case studies and problem-based learning. Prerequisite: BIOL 240 and an annual safety training outside of class. (Spring 2021) Offered in alternate years

BIOL 337 Immunology (3 SH)
Survey of immunology including the nature of antigens and antibodies, the reactions between them, applications of these reactions to clinical diagnosis and the cellular events which occur during the immune response. Beneficial and pathological aspects of immunity are included. Prerequisite: BIOL 240.

BIOL 358 Natural History of the Shenandoah Valley (4 SH)
This course focuses on identification and understanding of the flora, fauna, and geology of the Shenandoah Valley. Students investigate general principles of natural history while simultaneously developing a sense of “place” in the local region. Laboratories rely heavily on field trips. Prerequisite: an annual safety training outside of class and BIOL 173 or permission of instructor. (Spring 2022) Offered in alternate years

BIOL 368 Blue Ridge Botany (2 SH)
This course involves the study and appreciation of plants in their natural environments. Emphasis is placed on species found in the mountains in and around Rockingham County. Topics include plant development, reproduction, identification, taxonomy, and community ecology. We also discuss how environmental factors affect plant growth, distribution, and assemblage into communities. The course will include several field trips. Prerequisites: BIOL 155, BIOL 173, or instructor approval. This course meets for 7 weeks. (Fall 2021) Offered in alternate years

BIOL 369 Teaching of Biology (1-2 SH)
Practical experience in teaching of biology by working with a faculty member in a biology course. May include proctoring in self-paced courses, tutoring, assisting in the preparation and supervision of laboratories, or other teaching functions. A written self-evaluation is required. Prerequisite: consent of the instructor.

BIOL 388 Entomology (3 SH)
This course explores the morphology, development, taxonomy, behavior, and physiology of insects and related groups such as spiders. The impact of insects on human health and agriculture is addressed as well as insect control. Laboratory work focuses on insect behavior, physiology, and the classification of insects to orders and common families. An insect collection is required and multiple collection techniques are introduced. Two lecture periods and one lab per week. Prerequisite: an annual safety training outside of class and BIOL 173 or permission of the instructor. (Fall 2021)  
Offered in alternate years

BIOL 395 Bioinformatics (2 SH)  
This course teaches the bioinformatics skills used in academic and biotech laboratories for analyzing individual DNA and protein sequences. The focus is extensive hands-on experience using mainstream web-based bioinformatics tools. Laboratory based course that addresses biological questions by analyzing sequences, searching databases, using sophisticated software, and interpreting results. Prerequisites: BIOL240. (Fall 2020)  
Offered in alternate years

BIOL 429 Biology Internship (1-3 SH)  
This course serves as a practical application of biological principles and knowledge within a specific discipline of interest and as a way of gaining experience outside of EMU in an area of concentration. The internship will vary with a student’s particular interest but typically involves either working on a research project or participating in an internship at an appropriate organization. Open to junior or senior level general biology track majors only.

BIOL 437 Advanced Human Anatomy (4 SH)  
Anatomical study of body systems using human cadaver materials. Histological studies are correlated with the above anatomical studies. Laboratory work includes dissection, osteology and microscopy. Prerequisite: an annual safety training outside of class and BIOL 245 or instructor permission. (BMC 612)

BIOL 447 Advanced Human Physiology (4 SH)  
Investigative study of selected body systems including neuro-muscular, cardiovascular, respiratory, renal and endocrine physiology. Extensive laboratory work emphasizes quantification and experimentation while using live materials and physiologic instrumentation. Prerequisite: an annual safety training outside of class and BIOL 112 or 173. (BMC 562)

BIOL 451 Neuropsychology (3 SH)  
Survey of the anatomy and physiology of the nervous system, including loss of function studies. Emphasis is placed on the role of general physiological principles that affect human behavior. (PSYC 451) (Spring 2022)  
Core: NS  
Offered in alternate years

BIOL 461-465 Topics in Advanced Ecology (2 SH)  
An advanced ecology course emphasizing population ecology and investigative field techniques. Extended field work focuses on topics such as animal behavior, population surveys, vegetative sampling, and landscape ecology. Specific topics covered vary depending on instructor. Also includes an introduction to ecological research design and data analysis. Prerequisite: BIOL 235 and an annual safety training outside of class. This course meets for 7 weeks.

BIOL 478 Advanced Neurobiology (3 SH)  
This course explores the interdisciplinary field of neuroscience with an emphasis on the biology of the nervous system. It includes the structure of the nervous system, how neurons communicate electrically and chemically, sensory systems, motor systems, and the neural basis of behavior. Two lecture periods and one lab per week. Prerequisites: an annual safety training outside of class and BIOL 112 or BIOL 173. (Spring 2021)  
Offered in alternate years

BIOL 479 Biology Research (1-3 SH)  
Multi-semester research under the direction of a faculty member. Pre- or co-requisite: BIOL 255 and an annual safety training outside of class. Instructor permission required and dependent on student application.

BIOL 485 Faith, Science and Ethics (2 SH)  
Explores the relationship between science and Christian faith by investigating the philosophical foundations of science and their interactions with theology. Issues such as the evolutionary basis for morality, chance and complexity, human nature, environmental ethics, and bioethics are examined. A "worldview" reflective paper is required. Restricted to students majoring in the biology/chemistry programs or by instructor permission.  
Core: WI
BIOL 499 Independent Study (3 SH)
A research or honors program that may be initiated at any point in the student's studies upon approval by the department chair. The student registers only during the term when credit is to be granted and upon the approval of the research advisor. Highly recommended for biology majors.

BIST 212 And the Word Became Book: History of the Bible (3 SH)
Beginning with ways God's revelation is explained, this class follows the story of the Bible from oral tradition to written and copies texts, to collection and canonization, translation, dissemination through mission, and textual study, to modern versions of the Bible. Students also survey approaches to biblical interpretation and reflect on their own stories with the Bible in light of what they have learned about its own story.
Core: ABP

BIST 223 Four Portraits of Jesus: Reading the Gospels (3 SH)
Students explore the texts of the four canonical gospels, using narrative, inductive, and comparative approaches to deepen their knowledge of and insight about four ways that early believers told the stories of the life, teachings, death, and resurrection of Jesus. Through participation in contemporary community settings, students will reflect on ways that the gospel/good news can be visible in our own contexts. (Fall 2021)
Core: ABP, CL
Offered in alternate years

BIST 323 Life and Letters of Apostle Paul (3 SH)
This course surveys Paul's writings, the deutero-Pauline writings, and the account of Paul's life in Acts. It considers central themes in Paul's missiological and theological efforts, and introduces students to methods of biblical exegesis, including learning by peer reviews of each other's interpretational work. Students reflect on Paul's proclamation of the faithfulness of God in Jesus Christ and the faith response of humans to God's work. (Fall 2020)
Core: ABP, WI
Offered in alternate years

BIST 341 Old Testament Studies (3 SH)
This course invites students to explore a portion of the Hebrew Bible (e.g., Genesis-Exodus, Jeremiah, Job, Psalms) and provides an introduction to biblical interpretation and exegesis. Drawing on historical study, literary analysis, and dialogue with Jewish and other perspectives, students will develop their understanding of how these Old Testament texts continue to shape Christian faith and practice. (Fall 2021)
Core: ABP
Offered in alternate years

BIST 390 Biblical Perspectives (3 SH)
This course reflects the commitment of Eastern Mennonite University as a Christian liberal arts university. This is a commitment to nurture an appreciation for the rich resources of the scriptures for creative personal faith and human life in the modern world. It is designed to foster knowledge and understanding of the literature and history of the Bible and the integration of faith, learning, and living.
LOM

BIST 412 Elementary Hebrew (3 SH)
This course introduces biblical Hebrew grammar and vocabulary. Students will memorize the most frequently occurring vocabulary and grammatical forms for ease of reading biblical texts, and will read basic narrative prose passages from the Hebrew Bible. Lecture videos based on a textbook are provided online; class time focuses on reading and practice exercises using a workbook and other resources. (BVOT 532) (Does not satisfy EMU Core Foreign Language Requirement.) Prerequisite: senior status or permission of instructor

BIST 423 Elementary Greek (3 SH)
This course is a basic introduction to the language of the Greek New Testament. The course focuses on the basic grammar necessary for reading and translating the Greek New Testament as well as for doing more advanced Greek studies. Through classroom study, written exercises, quizzes and readings in the Gospel of John, students develop ability in discovering the form and function of words/phrases, build a basic vocabulary and discover the value of language study for biblical interpretation. (BVNT 531) (Does not satisfy EMU Core Foreign Language Requirement.) Prerequisite: senior status or permission of instructor

BIST 499 Independent Study (1-3 SH)
BISTL 380 Biblical Perspectives (3 SH)
This course reflects the commitment of Eastern Mennonite University as a Christian, liberal arts university, to nurture an appreciation for the rich resources of the scriptures for creative personal faith and human life in the modern world. It is designed to foster knowledge and understanding of the literature and history of the Bible and the integration of faith, learning, and living.

Offered through Lancaster

BISTL 390 Biblical Perspectives (3 SH)
This course reflects the commitment of Eastern Mennonite University as a Christian, liberal arts university, to nurture an appreciation for the rich resources of the scriptures for creative personal faith and human life in the modern world. It is designed to foster knowledge and understanding of the literature and history of the Bible and the integration of faith, learning, and living.

Offered through Lancaster

BUAD 101 Business at EMU (3 SH)
An introductory course to understand the function of and leadership in business and organizations. It provides information on the functioning and expectations of the organizations in society while having students consider how their skills and abilities can be developed and utilized in the organizational setting. The course will focus on development of specific skills in written and oral communication, and business etiquette.

BUAD 111 Exploring Business (3 SH)
An introductory course in business administration. Provides students with a basic understanding of business and leadership and the role they play in American society. Provides a brief overview of all major functional areas of business. This course is recommended for non-majors or students considering a major in the department. Pre or corequisite WRIT 130.
Core: SB

BUAD 221 Principles of Management (3 SH)
This course provides an introduction to the principles and practices of management. Management is examined in its major functions: planning, leading, organizing and controlling. Examples from businesses and other organizations are reviewed to understand how these principles apply. Other courses in the curriculum build on the knowledge and understanding developed in this course.
Core: SB

BUAD 301 Quantitative Decision Making (3 SH)
An examination of quantitative techniques used in managerial decision making. Topics include use of probability distributions, forecasting, inventory planning, decision tables, decision trees, linear programming and networks. The course will emphasize applications using computer spreadsheets and software. Prerequisites: STAT 120, CIS 211, and admission to the department.

BUAD 321 Human Resource Management (3 SH)
This course evaluates the primary personnel and human resource management functions and activities. Topical studies include recruiting, selecting, hiring and evaluating employees. Attention is also given to thorough job analysis, writing job descriptions and managing effective wage and salary programs. The course objective is to assist the student in becoming an effective line manager or human resource specialist. Prerequisite: BUAD 221. (Spring 2022)
Offered in alternate years

BUAD 331 Organizational Behavior (3 SH)
This course studies the management of human behavior in organizations. Behavioral topics include group dynamics, motivation, communication, ethical leadership, self-managed teams, and sustainability. Management topics include a review of managerial functions, planning and decision-making techniques, and organizational design. This course relies heavily on the case study method and effective communications skills to equip students for managerial and leadership roles. Prerequisite: BUAD 221 or PSYC 221.
Core: WI

BUAD 411 Business Law (3 SH)
This course is designed to give students a working knowledge of important legal issues that affect the rights and responsibilities of American business persons and organizations. Students will develop an appreciation for the interrelationship between ethics, law and business decision-making. Students will develop an understanding of the foundation of the legal system as it relates to business; the law on management of the workforce; and the various dispute resolution alternatives.
BUAD 431 Seminar in Human Resource Management (3 SH)

This course helps students to acquire basic knowledge about the legal relationships between employer and employee and understand the potential impact of each. Students will learn parameters for selecting, testing, disciplining and discharging employees; understand and apply federal and state laws against discrimination and harassment; and be prepared to follow government regulation of the workplace, including minimum and maximum wage hours, safety, health, compensation for injuries, and pension and health benefits. Prerequisite: BUAD 221 or consent of the instructor (Fall 2020)

Offered in alternate years

BUAD 441 International Business (3 SH)

This course explores international business from the perspective of economic markets, trade, finance, and the influences of differences in macro-cultures on business decisions. The course begins with an overview of economic institutions that provide the context for international business and current economic theory on trade and finance. Students then consider and learn how culture influences organizational decisions related to strategy and operations. Throughout the course, students will analyze how decisions may differentially impact stakeholders and how they fit within these systems. Prerequisite: ECON 201 Survey of Economics or ECON 211 Principles of Microeconomics or ECON 212 Principles of Macroeconomics. (ECON 411) (Spring 2021)

Core: CC

Offered in alternate years

BUAD 461 Strategic Leadership in Organizations (3 SH)

Strategic Leadership in Organizations is a capstone course, intended to draw upon content learned in previous courses, such as management, accounting and finance, and marketing. It is primarily a course in business values and strategy and is designed to teach analytical thinking while understanding concepts of business strategy and competition. Important themes include effective and ethical leadership, sustainable business strategy and the role of organizational values. Prerequisite: Senior standing and departmental admission.

Core: CL

BUAD 465 Project Management and Grantwriting (3 SH)

Most organizations accomplish their mission and manage much of their work through projects. This requires specific skills to manage not only individual projects but often a complex web of multiple and interrelated programs, working skillfully with diverse stakeholders, against demanding deadlines, and with limited resources. Students will improve their capacity to balance the art and science of managing projects by building technical competencies and adopting best practices of leadership and management, all through an integrated lens of leadership for the common good. (OLS 665)

BUAD 470-475 Topics in Business (3 SH)

Special topics courses are offered based on student and/or faculty interest, or to address significant contemporary issues in the field. Topics that have in the past been offered or considered include: entrepreneurship, microfinance, money and banking, and social media marketing.

BUAD 481 Business Internship (1-3 SH)

Work experience designed to integrate practice and theory, to give business administration majors insight into current policies, procedure, and problems in all types of organizations. Frequent consultation with and written reports to the faculty advisor guide the student's experience. Travel and personal expenses are the student's responsibility. Can be taken during the summer. Grading is on a Pass/Fail basis. This is highly recommended for business administration majors. Prerequisite: Admission to the department, junior or senior standing, and a department GPA of at least 2.7. The internship director must approve the internship before it commences.

Core: CL

BUAD 499 Independent Study (1-3 SH)

Supervised readings and/or research in business. Oral or written examinations and presentation of findings may be required.

CCSCL 440 Cross-Cultural Perspectives (3 SH)

This course focuses on the development of global awareness, faith, and management as it relates to cross-cultural understanding. Students will be challenged to look beyond their own culture and understand social systems and institutions from the perspective of people in another culture. Experiential learning will take place as students participate in an off-campus, cross-cultural experience in a culture that is different from the students' majority orientation.

Offered through Lancaster

CCSCL 450 Cross-Cultural Perspectives (3 SH)
This course focuses on the development of global awareness, faith, and management as it relates to cross-cultural understanding. Students will be challenged to look beyond their own culture and understand social systems and institutions from the perspective of people in another culture. Experiential learning will take place as students participate in an off-campus, cross-cultural experience in a culture that is different from the students’ majority orientation.

Offered through Lancaster

CCSPA 312 Advanced Conversational Spanish I (3 SH)
These courses are designed to help students gain oral competency and a solid grammatical base in Spanish through small group, intensive classes. They are offered in the setting of a cross-cultural study experience offered by EMU. When offered through the Central America Study and Service program in Guatemala City, Guatemala, classes meet for four hours, five days a week for seven weeks. Students live with Guatemalan families to enhance linguistic immersion. Each student is assessed at the beginning for placement and at the end for oral and written competency. The courses will be designed to meet the individual student’s needs. (Spring 2021)

Offered in alternate years

CCSPA 322 Advanced Conversational Spanish II (3 SH)
These courses are designed to help students gain oral competency and a solid grammatical base in Spanish through small group, intensive classes. They are offered in the setting of a cross-cultural study experience offered by EMU. When offered through the Central America Study and Service program in Guatemala City, Guatemala, classes meet for four hours, five days a week for seven weeks. Students live with Guatemalan families to enhance linguistic immersion. Each student is assessed at the beginning for placement and at the end for oral and written competency. The courses will be designed to meet the individual student’s needs. (Spring 2021)

Offered in alternate years

CCSSC 201 Cross-Cultural Social Science (3 SH)
This course provides the foundation for intercultural learning and is offered in conjunction with the off-campus programs including semester programs (Option 1), summer 3 or 6 week programs (Option 2) or WCSC semester or summer programs (Option 3).

Core: CC

CCSSC 202 Cross-Cultural Learning Integration (0-1 SH)
International students, multicultural students and students with previous qualifying cross-cultural experiences reflect on their learnings to fulfill the experiential component of the cross-cultural requirements. Permission must be granted by the cross-cultural director to take this course once the 7-8 SH of cross-cultural designates (including foreign language) are complete.

Core: CC

CCSSC 211 Cross-Cultural Community Immersion (3 SH)
This course is offered on campus during the semester and includes a significant experience (at least 40 hours) in the home of a local family from a different language and culture than that of the student. Requirements also include at least 20 hours in partnership with an Intensive English Program student. For additional information on any cross-cultural offerings, students are encouraged to contact the Cross-Cultural Programs office.

Core: CC

CCSSC 386 Cross-Cultural Social Science: Multicultural History of DC (3 SH)
The Washington, D.C. setting offers students an opportunity to examine the history of race and ethnicity in a specific urban context. The history of African-Americans and their ongoing influence on D.C. neighborhoods and political movements will be explored.

Core: CC, WI, WCSC

CCSSC 387 The Urban Landscape (3 SH)
This course is an introduction to urban studies, focused in particular on questions of space and place. Through fieldwork, readings, and discussion, we explore the urban landscape of Washington, DC, seeking to understand the spatial organization of the city, the inequalities it reflects, and the implications for people and communities. What drives racial and economic segregation? How do we make sense of cycles of neighborhood development and disinvestment? This course asks students to consider the breadth of actors and forces that shape the city, and to reflect on what it means to seek justice within this context.

Core: CC, WI, WCSC

CCSSC 440 Cross-Cultural Perspectives (3 SH)
This course focuses on the development of global awareness, faith, and management as it relates to cross-cultural understanding. Students will be challenged to look beyond their own culture and understand social systems and institutions from the perspective of people in another culture. Experiential learning will take place as students participate in an off-campus cross-cultural experience.
CCUSL 310 Global Trends in Health Care (3 SH)
This course will discuss health and health care that transcend geographic boundaries. The overall goal is for students to develop a worldview that comprehends the interrelationship between health and social systems, institutions, culture, politics, environmental factors, education, and economics. Some topics of discussion will include health disparities among nations, global environmental issues, poverty, human trafficking, and pharmaceuticals as it affects cultures.
Offered through Lancaster

CE 165 Networking and Data Communication (2 SH)
An introduction to networking and the Internet. Topics include TCP/IP and other network protocols, standard data formats including web standards such as HTML and CSS, client/server applications, network infrastructure, and security.

CE 175 Architecture and Operating Systems (4 SH)
An introduction to computer hardware and system software. Topics include digital logic, computer organization and architecture, interfacing and communication, memory management, scheduling and resource allocation, and concurrency. Previous programming experience recommended.

CE 330-335 Topics in Computer Engineering (2-4 SH)
The department will offer at least one Topics course each year with the content based on the areas of interest of current students and faculty. The course may be taken for credit repeatedly since the content will vary from year to year. Topics may include: theory of computation, numerical analysis, modeling and simulation, graphics, computer animation, computer vision, advanced algorithmic analysis, cryptography, parallel algorithms, artificial intelligence, robotics, smart phone technology, hypermedia development, language translation systems, and functional programming.

CE 365 Digital Circuits (3 SH)
This course will introduce students to the tools and techniques behind modern digital logic circuits. We will begin with how basic logic gates are built from transistors, how basic logic gates are used to implement combinational and sequential circuits and such as flip-flops, adders, multiplexers, etc. culminating with circuit design using a microcontroller.

CE 375 Software Engineering (2 SH)
Software engineering is the set of interrelated disciplines that are utilized in the development, deployment, maintenance, and usage of enterprise-wide software solutions. This course focuses on the lifecycle of information systems and how that relates to strategic planning and information usage. Several software development lifecycle models will be explored as students participate in generating logical programming designs. Prerequisites: CS 220 and CS 275. (Fall 2021)
Offered in alternate years

CHEM 105 Chemistry for the Life Sciences (2 SH)
This course addresses basic concepts of chemistry as they pertain to the health sciences and is a good preparation for students who intend to pursue a career in nursing. This course will cover topics such as making measurements, dimensional analysis, atomic structure, types of bonding, as well as some introduction to reactions, particularly acids and bases. Prerequisite: high school algebra or equivalent. This course meets for 7 weeks.
Core: NS

CHEM 155 Matter and Energy (3 SH)
This course addresses basic concepts of chemistry and physics in the context of social, environmental, and political issues. This course will cover topics such as atomic structure and bonding, the physics of energy, chemical reactions in air and water, and the nature of scientific inquiry. Two lectures and one laboratory per week. Prerequisite: high school algebra or equivalent and an annual safety training outside of class.
Core: NS

CHEM 223 General Chemistry I (4 SH)
A study of water, solutions, atomic and molecular structure, chemical bonding, and chemical reactions. Laboratory work involves quantitative, computational, and spectroscopic analyses of chemical systems that are relevant to the 'real world'. Three lectures and one laboratory period or field-trip per week. Prerequisite: an annual safety training outside of class and high school chemistry or equivalent; minimum SAT score of 530 math and 1080 composite or ACT score of 22 math and 21 total. Students without the minimum SAT or ACT score must first pass MATH 114 College Algebra with a grade of B or higher.
Core: NS

CHEM 224 General Chemistry II (4 SH)
A careful study of chemical reactions with respect to enthalpy, entropy, equilibrium, kinetics, and electrochemistry. Laboratory work involves the student-directed development of a technique for the quantitative and spectroscopic analyses of an environmentally important substance. Three lectures and one laboratory period or field-trip per week. Prerequisite: CHEM 223 and an annual safety training outside of class.

**CHEM 285 Environmental Chemistry (4 SH)**

An introduction to concepts in atmospheric, aquatic, and terrestrial chemistry, pollution, and energy production and consumption. Students and faculty work together with members of the community at large to investigate local environmental issues, and to educate the community about these issues. Laboratory work includes common field sampling and analytical techniques, and statistical analysis of chemical data. Students are expected to design, conduct, and report on experimentation to confirm measurements of environmental analytes using multiple strategies. Three lectures and one laboratory period or field-trip per week. Prerequisite: CHEM 223 and an annual safety training outside of class. (Spring 2022)

*Core: CL*

*Offered in alternate years*

**CHEM 305 Alternative Energy (2 SH)**

This course will address understanding some of the current and emerging "energy alternatives" by looking at the chemistry underlying each means of energy production. Topics addressed will fall into three broad categories: electrochemistry (photovoltaics, fuel cells, batteries, etc.), thermodynamics (fuels) and nuclear chemistry. The course will have several short laboratory exercises to provide a hands-on introduction to several energy sources and students will pursue an in-depth project. Prerequisite: CHEM 223 and an annual safety training outside of class. (Spring 2021)

*Offered in alternate years*

**CHEM 315 Organic Chemistry I (4 SH)**

Organic chemistry is the study of the relationship between the three-dimensional structure and the reactivity of carbon compounds. The chemical and physical properties of organic compounds will be linked to an understanding of orbital theory, electronegativity, strain, and steric. Reactions of simple organic compounds will be described in terms of electron movement (mechanisms) and kinetic vs. thermodynamic parameters. The laboratory will emphasize development of purification, isolation, and identification techniques, particularly chromatography, infrared spectroscopy, mass spectroscopy, and nuclear magnetic spectroscopy. Three lectures and one four-hour laboratory per week. Prerequisite: CHEM 224, with a minimum grade of C- and an annual safety training outside of class.

**CHEM 316 Organic Chemistry II (4 SH)**

This class builds on the reactions and mechanisms described in CHEM 315 so that 'new' mechanisms can be deduced based on the key principles of conformational preference, steric, polarity and bond strength. Aromatic compounds as well as oxygen and nitrogen containing compounds are studied so that the chemistry of biomolecules can be introduced. Structure determination of increasingly complex compounds by instrumental techniques, such as GC-MS, NMR, and IR, will also be emphasized. The laboratory will involve multi- step transformations, purifications, and advanced structure determination using primarily instrumental techniques. Three lectures and one four-hour laboratory per week. Prerequisite: CHEM 315 and an annual safety training outside of class.

**CHEM 325 Analytical Chemistry I (2 SH)**

An overview of the various aspects of analytical chemistry such as sampling, statistical analysis of data sets, quantitative and qualitative analysis, spectroscopy and chromatography, and trouble-shooting/ instrument design and maintenance. Emphasis will be given to Gravimetric and Titrimetric analysis, Ultraviolet and visible spectroscopy, Advanced GCMS and ion-selective electrodes. One lecture, four hours of laboratory. Prerequisite: CHEM 224 with a C or higher and an annual safety training outside of class. (Fall 2020)

*Offered in alternate years*

**CHEM 345 Analytical Chemistry II (2 SH)**

An overview of the various aspects of analytical chemistry such as sampling, statistical analysis of data sets, quantitative and qualitative analysis, spectroscopy and chromatography, and trouble-shooting/ instrument design and maintenance. Emphasis will be given to Atomic spectroscopy, NMR spectroscopy including multi-dimensional analysis and nuclei beyond C and H, HPLC. One lecture, four hours of laboratory. Prerequisite: CHEM 224 with a C or higher and an annual safety training outside of class. (Fall 2019)

*Offered in alternate years*

**CHEM 405 Thermodynamics (3 SH)**

A computationally intensive foundational study of chemical thermodynamics and kinetics. Topics include gases, enthalpy, entropy, Gibbs free energy, chemical and phase equilibria, statistical thermodynamics, electrochemistry and chemical kinetics. Prerequisite: two semesters of math, recommended completion of MATH 195. (PHYS 405) (Fall 2020)

*Offered in alternate years*

**CHEM 406 Quantum Mechanics (3 SH)**
A mathematically intensive study of basic QM as related to atomic and molecular structures. Topics include the Schrödinger equation, the uncertainty principle, bound and scattering states, the hydrogen atom, and spectroscopy. Prerequisite: MATH 195 or instructor permission. (PHYS 406)

Offered in alternate years

CHEM 479 Chemistry/Biochemistry Research (1-3 SH)
Research under the direction of a faculty member. Permission required since enrollment is limited. Prerequisite: an annual safety training outside of class.

CHEM 499 Independent Study (1-3 SH)
Independent study including preparation and presentation of a scholarly research paper, introduction to research, advanced syntheses, etc. May include topical seminars by staff or visiting lecturers. Prerequisite: departmental approval.

CHMUS 211 Music for the Congregation (3 SH)
This is a skills course that is intended to develop competencies required of a successful church music leader. Topics will vary from year to year, depending upon student interest and instructor availability. It may include skills such as leading the congregation’s song (cantoring), arranging music for worship, developing keyboard skills, reading charts, incorporating world music and more. The course is open to all students who have interest in leading church music.
Core: CA

CHMUS 490 Church Music Internship (1-2 SH)
Internships are provided through churches and community organizations. Students gain various experiences in a wide range of music-related fields according to their areas of interest.

CHST 101 Small Group Ministry Practicum I (1 SH)
This practicum experience provides an opportunity for students to explore and develop interests in church leadership and ministry. Enrollment is limited to Ministry Assistants (MAs), who are required to lead weekly small groups in residence halls or off-campus.

CHST 212 Introduction to Youth Ministry (3 SH)
Do you believe that the average North American youth has experienced hurt and a sense of abandonment by the adult culture? Drawing from Chap Clark’s text, Hurt 2.0, we will explore this theory as we become familiar with current issues in North American youth culture. The basics of ministry for working with youth, prevention of sexual abuse, theories of adolescent faith development and self-care for youth workers are also taught. If you have an interest in working with young people in your profession this course is for you. Learning from guest speakers and observation of local youth work will also be a part of this course.
Core: CW

CHST 223 Spiritual Formation, Sacred Pauses (3 SH)
In the midst of a crazy paced world would you like to find some peace? Join us on a journey of Christian spiritual formation where we search for daily spaces that April Yamasaki calls “Sacred Pauses.” Using texts by Yamasaki and Foster we will learn to practice twelve spiritual disciplines, such as prayer, simplicity and meditation and we will discern their impact on our inward and outward journeys of faith. A weekly small group experience, a day-long silent retreat, and periodic meetings with a spiritual director are also part of this course.
Core: CW

CHST 234 Mission in a Changing World (3 SH)
In a promising and perilous world that is constantly being reshaped by global economic realities, environmental degradation, endless conflicts, instant communication, and mass migration, the faithful church seeks to witness to the good news of the Kingdom of God. This course examines features of the high-risk, exploratory, and experimental nature of effective mission movements that have engaged the world in similar times of challenge and opportunity. Using insights from innovations demonstrated by Jesus, Paul, and many others through history including the early Anabaptists, students will examine, critique, design, and advocate appropriate approaches to mission in our present and future world.
Core: CW

Offered in alternate years

CHST 260 Teaching, Ministry, and Healthy Sexuality (3 SH)
This course explores the meaning and purpose of human sexuality from a theological perspective. It is designed to meet curriculum requirements for Physical Education, Education, Bible and Religion majors, and to serve other students whose career interests include working with youth. It will prepare students to teach/lead/minister with youth and young adults on sexuality-related questions, including learning how to avoid and prevent sexual harassment and abuse. Sophomore standing required for enrollment. (HE 260)

CHST 312 Missiology (3 SH)
This course is designed to introduce students to the interdisciplinary field of missiology by examining Christian mission, as well as the issues raised by its critics, from various perspectives. These perspectives include biblical foundations of mission, a historical overview of missions, critical reflections on empire and globalization, current issues in mission, practical applications, and personal considerations for intercultural missionaries.
Core: CL

CHST 334 Almost Christian: Youth Ministry In Congregations (3 SH)
What does the faith of North American teens tell the North American church? Kenda Creasy Dean's textbook, Almost Christian, shows that the faith of the average American teen is not theologically sound, but is "Almost Christian." How does youth ministry address this challenge? This course will focus on congregationally based youth ministry that moves beyond an emphasis on programming, to ministry that is relational, innovative and community and congregationally based. Learning to involve the entire congregation in youth ministry and mentoring programs, as well as becoming familiar with baptismal and church membership materials for youth will also be a part of this course.

CHST 365 Mennonite History and Thought (3 SH)
A survey of the Anabaptist movement and Mennonites throughout the world from the sixteenth to twenty-first centuries. Issues include pacifism, wealth, political participation, community and tensions between faith and the dominant culture. Particular attention is given to the Anabaptist vision and its relevance for 21st century American life. (HIST 365) (Spring 2021)
Core: CW
Offered in alternate years

CHST 372 Church Leadership for Transformation (3 SH)
What is the role of a faithful church and its leaders in today's conflicted world? Learn how God is using prophetic voices to provide congregational leadership in these days of church decline. Practice practical skills as you design a worship service, preach a sermon, learn about rituals of congregational life, interact with local church leaders and visit area churches. (Fall 2020)
Core: CW
Offered in alternate years

CHST 435 Martyrs, Merchants, and Mendicants: 1500 Years of the Christian Movement (3 SH)
This course surveys stories of Christianity, from the first century of the Common Era up to the dawn of the Protestant Reformation. It describes successes and failures, traditions and innovations, as Christians spread west into Europe, east toward China, and south into Africa. Students will consider questions Christians have struggled with and evaluate choices Christians have made. Thinking about poverty and wealth, enculturation in mission, peace and war, church and state, women and men throughout these stories will allow intersections with 21st-century Christian realities. (HIST 435)
Core: CW, WI

CHST 451 Church Work Practicum (3 SH)
Would you like to experience the inner workings of a congregation, and test your gifts for ministry? A program of study and supervised field experience in a congregation, church agency or related ministry. Special emphasis is placed on personal development for ministry, developing leadership skills and experiencing the many facets of ministry in the congregation.
Core: CL

CHST 462 Mission Practicum (3 SH)
The purpose of the practicum is first-hand involvement in Christian ministry and witness in an intercultural setting. Radical Journey, SALT, and YES and other similar short-term programs may meet this requirement if arrangements are made with an adviser before beginning the placement. Summer placements in global South settings, or participation in a Washington Community Scholars’ Center internship or other urban context are encouraged. RIS minors may integrate their practicum with a required practicum in their major, or within a semester-long cross-cultural, if arrangements are made beforehand with an adviser.

CHST 473 Youth Ministry Practicum (3 SH)
Would you like to experience the challenge of hands-on ministry with youth? Participate in a supervised field experience in a congregation, camp or related ministry. The focus of the practicum is to gain first-hand experience working with youth, and to learn leadership skills and to grow in personal development.
CHST 499 Independent Study (1-3 SH)

CIS 211 Spreadsheet and Data Management (1 SH)
Organizing, managing, and communicating data is critical in organizations today. Leaders and researchers with sound knowledge of the information contained in their data are better equipped to make strategic decisions and answer the complex questions in their discipline. This course provides a requisite skillset for using spreadsheet applications (Microsoft Excel and Google Sheets) for data analysis and a deeper set of tools for broad information management. This course is relevant to students of any major where data management and statistical analysis is helpful in their field.

CIS 251 Management Information Systems (3 SH)
An introduction to information resources within the context of an organization. The course focuses on the ways in which technology enables business to function more efficiently. Topics include the strategic importance of information, the technical components of information systems, and the business value created by using information systems. Prerequisites or corequisites: BUAD 221 and CIS 211.

CIS 321 Advanced Spreadsheets (1 SH)
This course focuses on automation of complex tasks and analyses in the spreadsheet environment. The course builds proficiency in tools for managing data sets and solving complex problems using the data. The course also builds introductory programming skills through the use of macros and Visual Basic. Course learning is project-based. Prerequisites: CIS 211 and any STAT course. (Spring 2021)

Offered in alternate years

CMUS 114 Appreciating Music Making (3 SH)
Focusing on experiential learning, this class introduces music from the insider's perspective in order for students to explore creative processes involved in music making. Class content is organized topically, including notation systems, ensembles, composition, improvisation, music philosophies, film music, and music and worship from both Western and non-Western perspectives. Students will develop informed listening skills and cultivate an appreciation for the many contexts of music in our daily lives. Familiarity with music notation is not required.
Core: CA
Offered through Lancaster

CMUS 116 Appreciating Music Making (2 SH)
Music is one of the most fundamental and powerful forms of human creativity and expression. Through an exploration of classical music, pop music, jazz, rock, rap, world music and more, we will learn to understand the colorful tapestry of musical language across various styles, genres, and eras. In this course we will feature live performances, watch video, listen to audio, and participate in interactive activities in order to enrich our classroom experience and gain a greater understanding and deeper love for the art of music. (Offered through EMU Lancaster as a 3 SH course, CMUS 114)
Core: CA

CMUS 120 Music Fundamentals (3 SH)
A music fundamentals course open to students of all disciplines. Musical literacy is not required as the course will introduce students to the skills needed to read and write Western music notation, as well as to understand, analyze, and listen. Topics include pitches and scales, intervals, clefs, rhythm, form, meter, phrases and cadences, and basic harmony. Majors and minors may be excused from this course or sections of it by examination.

CMUS 181 Music Theory I (3 SH)
Centering on experiential learning, this course will examine the theory of major Western musical styles from the Middle Ages to 1800 noting the variety of genres, compositional practices, and ideas that ultimately inform music making today. The course starts with series counterpoint and moves to part writing, harmonic analysis, and musical form. The ability to read music is required. Prerequisite: CMUS 120.

CMUS 200 Landscape of Music (0 SH)
A required course for all music majors to be registered each on-campus semester, with the following objectives: to prepare students to be successful music majors, to model the unity of the various aspects of musicianship, and to develop a style of learning that will lead to successful end-of-the-year performance assessments.

CMUS 201 Topic: World Music (2 SH)
World Music is a broad survey course. Through reading, listening, practical experience and discussion, students will acquire a broad understanding of a very expansive field. The course, organized as a tour around the globe, focuses on the unique musical language and expression, the cultural context, and the global significance for each country visited on this ‘tour.’
Core: CA, CC

Offered in alternate years

CMUS 202 Topic: Folk-Rock to Hip-Hop (2 SH)
From its earliest beginnings in the blues and Tin Pan Alley, all the way up to today’s most current artists, American popular music has played a vital role in shaping the cultural landscape of the United States and the world. This course will survey the rich history of American popular music from a cultural, technological, and sociological perspective and explore its various influences. Students will learn elementary music concepts and skills through interactive engagement and will examine the characteristics of various musical styles including country, folk, rock, pop, R&B, rap and more. Through a hands-on exploration of music by artists such as The Beatles, Bon Jovi, Jimi Hendrix, Beyonce, Tupac Shakur, Billie Eilish, Chris Stapleton, and many more, this course provides a foundation for understanding the full and dynamic tapestry of music that continues to impact and shape generations.
Core: CA

Offered in alternate years

CMUS 203 Topic: Listening to Film (2 SH)
The past one hundred years have witnessed the development of a new art form: film. From its beginnings (before movies even had spoken dialog) music has played an integral part in shaping the perceptions of its audience. Ironically, when viewing a film we rarely give the soundtrack our full attention. This course will introduce students to a new way of “listening to film” as it chronicles the history of cinema and its evolving relationship with music. No prior knowledge of music or film history is necessary.
Core: CA

Offered in alternate years

CMUS 204 Topic: Introduction to Music Technology (2 SH)
The Music Technology course will allow students to discover and explore introductory concepts used in music sequencing, notation, and recording. This course will provide a detailed explanation of computer music production. Students will develop skills in loop and MIDI production, sampling, digital audio generation, audio recording, editing, and mixing through class instruction and hands-on learning with Ableton Live and Audacity software. No prior experience in music is necessary.
Core: CA

Offered in alternate years

CMUS 205 Topic: Musical Theater (2 SH)
Integrating practice with history and theory, this course examines the use of music in theater from the advent of opera in Renaissance Italy to the American Broadway Musical. Students will perform songs and engage with dance/movement as they learn to become better performers and more informed audience members. Students with all levels of experience from absolute beginner to seasoned performer are welcome! (THR 231)

Offered in alternate years

CMUS 250 Music History I (3 SH)
Music is the product of people, their lives, and communities throughout time. In academia it is often separated and taught in distinct divisions such as theory and history; however, these two areas should be understood in context with each other and as part of an integrated whole. Centering on experiential learning, this course will examine the history and theory of major Western musical styles from the Middle Ages to the Classical Era, noting the variety of genres, compositional practices, and ideas that ultimately inform music making today. Counterpoint, musical form, and writing about music are emphasized. The ability to read music is required.
Core: WI

CMUS 260 Music History II (3 SH)
Music is the product of people, their lives, and communities throughout time. In academia it is often separated and taught in distinct divisions such as theory and history; however, these two areas should be understood in context with each other and as part of an integrated whole. Centering on experiential learning, this course will examine the history and theory of major Western musical styles from the Classical Era to the present, noting the variety of genres, compositional practices, and ideas that ultimately inform music making today. Counterpoint, musical form, and writing about music are emphasized. The ability to read music is required.
Core: WI

CMUS 281 Music Theory II (3 SH)
Centering on experiential learning, this course will examine the theory of major Western musical styles from 1800 to present noting the variety of genres, compositional practices, and ideas that ultimately inform music making today. The course covers part writing, harmonic analysis, musical form, and 20th-21st century compositional techniques. The ability to read music is required. Prerequisite: CMUS 181 Music Theory I.

CMUS 411 Conducting I (4 SH)
A comprehensive course that includes beginning conducting techniques (choral and instrumental), score analysis, rehearsal techniques, and an introduction to orchestration. Writing about music (analysis, essays, program notes, reviews, and formal papers) is included in this course. Prerequisite: junior or senior music major or minor, or instructor's permission.
Offered in alternate years

CMUS 412 The Compleat Musician (4 SH)
Capstone course for the music major. Semester will culminate with a public performance of selected works for voices and instruments in which each student will perform in an ensemble setting. This course will include continued development of conducting techniques, completion of a choral arrangement, score analysis, historical analysis, program note writing strategies, and development of collaborative skills.

CMUS 440 Seminar (1-3 SH)
Offerings dependent on faculty and student interest. Requires instructor's permission; may be repeated.

CMUS 490 Internship (1-2 SH)
Internships are provided through churches and community organizations. Students gain various experiences in a wide range of music related fields according to their areas of interest.
Core: CL

CMUS 499 Independent Study (1-3 SH)
Independent research, reading or work under the supervision of a faculty member. For advanced students only.

CORE 101 Transitions (1 SH)
This course is for all first-year students. Students engage in small groups to explore the academic, empathic, and vocational skills that support a successful transition to EMU. Discussion and community-building is emphasized.

CORE 120 University Research (1 SH)
This course is only for first-year students who have fulfilled their College Writing requirement prior to enrollment at EMU. Students participate in a guided study to be oriented to EMU's digital resources and research expectations as they complete a single research project. Students complete the study within 4-7 weeks during the second half of their first semester.

CORE 201 Life Wellness (2 SH)
This largely experiential course focuses on creation care and stewardship of the body in relation to doing justice, loving mercy, and walking humbly with God. This course is not available for first-year students and is ideally taken in the second year at EMU. (Education students seeking PreK-3, PreK-6, SPED, or Health and Physical Education (PreK-12) licensure, substitute HE 202 Health and Safety for CORE 201 Life Wellness.)

CORE 401 Senior Seminar (2 SH)
This team-taught course provides an opportunity for students to reflect on their life journeys and synthesize their undergraduate experience as they consider their transition from EMU. The course focuses on identity formation, the process of being and becoming, and finding voice. A chosen theme frames volitional and reflective inquiry. Registration is limited to students in their final year of enrollment.
Core: SrSem

CS 105 Intro to Computer Science (2 SH)
A lab-based course designed to tour the modern world of computing. This course introduces the major areas of computer science, including data representation, computer hardware, programming languages, algorithms, operating systems, computer networks, and ethics in computing.
CS 145 Introduction to Programming (2 SH)
An introduction to the basic concepts of programming, problem-solving, and design techniques using the object-oriented language Python.

CS 155 Programming in Python (2 SH)
Applies basic programming concepts with more extensive programs, including a final project of the student's choice in Python. Prerequisite: CS 145 or other programming experience.

CS 245 Programming in Java (2 SH)
Applies basic programming concepts, while introducing the Java language. Prerequisite: CS 145 or other programming experience.

CS 255 Intermediate Programming (2 SH)
An introduction to structured object-oriented programming techniques using the Java programming language. Students will write Java programs to implement a variety of algorithms for searching, sorting, and numerical computations. Input/output will use the console and graphical user interface components, text files, and image files.

CS 265 Databases (2 SH)
A course in the design and querying of database systems. Topics include design principles, normalization, entity-relationship models, and use of SQL for database access and management. Previous programming experience recommended.

CS 275 Web Applications (2 SH)
A project-based course exploring the design of database-backed interactive web sites and applications. Students will use HTML, CSS, JavaScript, and libraries to build the client side along with SQL, PHP, and various back-end technologies to build the corresponding server side of a web site or application. Prerequisites: CS 165 and CS 265.

CS 330-335 Topics in Computing (2-4 SH)
The department will offer at least one Topics course each year with the content based on the areas of interest of current students and faculty. The course may be taken for credit repeatedly since the content will vary from year to year. Topics may include: theory of computation, numerical analysis, modeling and simulation, graphics, computer animation, computer vision, advanced algorithmic analysis, cryptography, parallel algorithms, artificial intelligence, robotics, smart phone technology, hypermedia development, language translation systems, and functional programming.

CS 345 Data Structures (2 SH)
Basic data structures are introduced in this course, including arrays, linked lists, stacks, queues, etc. Students are required to implement various data structures. Prerequisite: CS 220. (Fall 2020)
Offered in alternate years

CS 355 Advanced Data Structures (2 SH)
This course continues the topics covered in CS 345 with data structures such as trees and other graphs. An introduction to basic algorithm analysis and design techniques, including divide-and-conquer and greedy algorithms. Prerequisite: CS 345 and MATH 170 (Spring 2021)
Offered in alternate years

CS 365 System Administration (2 SH)
An overview of the management and maintenance of organizational computing infrastructure including hardware, operating system, network, database and application software. Topics include installation, configuration, routine maintenance tasks, client/server application management, automation, and user support. Prerequisite: CS 165 and CS 265. (Spring 2022)
Core: WI
Offered in alternate years

CS 445 Analysis of Algorithms (2 SH)
A more in-depth look at algorithms including dynamic programming, network flow, and an exploration of NP completeness. Prerequisites: CS 355. (Spring 2021)
Core: WI
CS 455 Programming Languages (2 SH)
The formal study of programming language design and specification. Design principles are emphasized and evaluated in the context of the historical development of computing languages. Topics include design principles, study of actual languages, the run-time environment, translation, and programming in various programming languages and paradigms. Prerequisite: CS 320. (Fall 2021)

Offered in alternate years

CS 475 Capstone Project (2 SH)
This course provides a platform for senior students to work on a semester-long, team project under the guidance of CS or engineering faculty mentors. Prerequisite: CS 370.

CS 488 Computer Science Internship (1-3 SH)
Work experience gives students an opportunity to gain valuable practical experience. Consulting with the faculty advisor guides them in integrating theory and practice to maximize learning. Travel and other expenses are the student's responsibility. Internship opportunities are available through EMU's Washington Community Scholars' Center and organizations in the Harrisonburg area. Grading is on a pass/fail basis. Prerequisite: junior or senior status. Core: CL

CS 499 Independent Study/Research (1-3 SH)
Individual study in an advanced topic in computer science. Requirements normally include the preparation of a research paper to be presented at a departmental seminar. Open to juniors and seniors. Prerequisite: faculty approval.

ECON 201 Survey of Economics (3 SH)
An introductory economics course to help students understand economic policy and how/why goods and services are produced, distributed, and consumed. In addition to learning the tools and methods of economic analysis, this course examines the mechanisms, controls, and limits of economic activity in society and the interplay between markets, governments, and nature. Economics is a field and discipline (like sociology or psychology) that tries to explain why people, governments and countries do what they do; consequently, it is an important part of a liberal arts education. This is an introductory economics course for non-economics majors. Core: SB

ECON 211 Principles of Microeconomics (3 SH)
An introduction to the forces affecting the production, distribution and consumption of goods and services by households and businesses and their interaction with government. It also examines the strengths and limitations of the market system. Core: SB

ECON 212 Principles of Macroeconomics (3 SH)
An introduction to economics as a way of thinking with a focus on understanding how the economy as a whole functions. Major topics include economic growth, unemployment, and inflation in a mixed market system. Core: SB

ECON 300 Environmental and Ecological Economics (3 SH)
Students will study many of the "gifts of nature" and how these scarce resources are used, and sometimes abused, by human activity. Students will review a wide variety of topics, primarily through the lens of economic analysis, learning the methods and tools necessary to measure resource flow and value. Most ecological issues, however, are inherently interdisciplinary; therefore social, political, scientific, moral, and theological perspectives will also be part of integrated learning. Integrated throughout the course will be filters to discover how markets allocate natural resources, why and how governments intervene in markets on environmental grounds, the appropriateness and effectiveness of public policies in this area, and testing knowledge and learning against benchmarks of overall and global sustainability. Prerequisite: ECON 201 or ECON 211 or ECON 212, or consent of the instructor. (Spring 2021)

Offered in alternate years

ECON 311 Contemporary Economic Issues (3 SH)
This course examines the economic aspects of contemporary and controversial issues with social, political, and/or environmental implications. Topics may include deficits and debt, social security, the environment and energy policy, and healthcare, among others. Students will use economic theory, tools, and empirical analysis to identify, compare, and debate policy options that address the many dimensions of these issues while they also refine their own positions and arguments. Prerequisite: ECON 201 or ECON 211 or ECON 212, or consent of the instructor. (Spring 2022)
Core: WI
ECON 331 History of Economic Thought (3 SH)
Survey of the various perspectives and writers on the development of economic thought. Examines the historical context from which the various perspectives arose and the role each played in shaping contemporary economic views. Prerequisite: ECON 201 or ECON 211 or ECON 212 or consent of instructor.
Core: HI

ECON 341 Intermediate Microeconomics (3 SH)
Intermediate level analysis of supply and demand and the role of the price mechanism in organizing economic activity. Includes an evaluation of efficiency and equity issues. Prerequisite: ECON 201 or ECON 211. (Fall 2020)

ECON 342 Intermediate Macroeconomics (3 SH)
Intermediate level analysis of the determinants of national income, output, employment, interest rates and the price level. Examines problems and policies related to unemployment, inflation, growth, and debt within the global economy. Prerequisite: ECON 201 or ECON 212. (Spring 2021)

ECON 401 Development Economics (3 SH)
An investigation into the choices of low-income countries that seek development and growth. Explores theories of development and underdevelopment. Tools of economic analysis are applied to development issues. Prerequisite: ECON 201 or ECON 211 or ECON 212. (Fall 2021)
Core: WI

ECON 411 International Economics (3 SH)
A study of the theory and methods of international trade and how trade is financed emphasizing the applied aspects of trade policy. Examines the causes and consequences of free trade and trade barriers, foreign exchange, factor movements, financial markets and instruments, and balance of payments. Prerequisites: ECON 201 or ECON 211 and ECON 212. (BUAD 441)(Spring 2021)
Core: CC

ECON 481 Economics Internship (1-3 SH)
Work experience designed to integrate practice and theory, to give economics majors insight into current policies, procedure, and problems in all types of organizations. Frequent consultation with and written reports to the faculty advisor guide the student's experience. Travel and personal expenses are the student's responsibility. Can be taken during the summer. Grading is on a Pass/Fail basis. This is highly recommended for economics majors. Prerequisite: Admission to the department, junior or senior standing, and a department GPA of at least 2.7. The internship director must approve the internship before it commences.
Core: CL

ECON 499 Independent Study (1-3 SH)
Supervised readings and/or research in economics. Oral or written examinations and presentation of findings may be required.

ED 101 Exploring Teaching (2 SH)
An exploratory course designed to provide the student a means for self-assessment as a potential teacher. Learning activities include directed observations and participation in school settings, analysis of constructivist theory, growth mindset, reflective teaching, and current issues in education. A 20-hour practicum is included. (1 SH content; 1 SH practicum)
Core: CL

ED 221 Professional Field Experience (Early Childhood) (2 SH)
A participatory experience in nursery or preschools. Required reading and seminars. Travel expenses are the student's responsibility. Prerequisite: Permission from chair.
ED 235 Curriculum and Organization in Early Education (4 SH)
Surveys elementary school curriculum with an emphasis on the priorities and developmentally appropriate instructional practices of early childhood educators. Introduces the critical skills of daily, weekly, and long-term lesson planning, the integration of the arts into the core curricula, and the importance of school/home/community relationships. Includes a 20-hour practicum in a pre-school setting. Prerequisite or corequisite: ED 101. (3 SH content; 1 SH practicum)
Core: WI

ED 245 Learning and Classroom Environments (3 SH)
Focuses on the development of classroom environments that facilitate effective learning for learners. Topics include theories about learning, motivation, creating safe learning environments, positive behavior supports, interventions, and the physical, cognitive, and socio-emotional development of learners.

ED 252 Learning and Classroom Environments Professional Field Experience (6-12) (1 SH)
A 40-hour professional field experience that focuses on observations and participatory experiences in grades 6-12. Grading is on a pass/fail basis.
Corequisite: ED 245.
Core: CL

ED 275 Instructional Technology and Assessment (3 SH)
Addresses the design and implementation of technology-enhanced instruction, and the application of technology to assess and monitor learner performance. Topics include principles and practices of effective assessment, the relationship between instruction and assessment, grading systems and practices, and using assessment data to improve instruction and learner performance.

ED 301 Needs of Diverse Learners (3 SH)
Addresses teaching learners with diverse and special needs. Explores student diversity, including, but not limited to, cultural, racial, linguistic, socio-economic, and dis/ability characteristics. Focuses on integrated settings, universal design for learning, differentiation, and collaboration. Pre or corequisite: ED 331, 332, 333 or ED 351.

ED 331 Math in Elementary School (2 SH)
Curriculum Block is comprised of ED 331, 332, 333 (4 SH content; 2 SH practicum) which provide foundations of curriculum development and implementation. Coursework is integrated with a 60-hour practicum experience in K-6 classrooms with a focus on local, state, and national curriculum standards. Introduces methods of teaching mathematics in grades K-6 with significant attention to planning, instruction and assessment activities which are responsive to the needs of diverse learners. National Council of Teachers of Mathematics (NCTM) standards and Virginia Standards of Learning (SOLs) provide the content framework. Participants will be involved in exploration, development and practical applications of inquiry, discovery, directed teaching, use of manipulatives, and other activities designed to prepare them for teaching mathematics in elementary schools. Prerequisites: ED 235, ED 245 and a cumulative GPA of 2.5.

ED 332 Science in the Elementary School (2 SH)
Curriculum Block is comprised of ED 331, 332, 333 (4 SH content; 2 SH practicum) which provide foundations of curriculum development and implementation. Coursework is integrated with a 60-hour practicum experience in K-6 classrooms with a focus on local, state, and national curriculum standards. Active sciencing and teacher resourcefulness are emphasized in planning relevant, meaningful experiences for diverse learners. National Science Teachers Association (NSTA) standards and Virginia Standards of Learning (SOLs) provide the content framework. Emphasis is given to the importance of preparing children's learning environments so that science concepts can be taught through inquiry and active participation. Prerequisites: ED 235, ED 245 and a cumulative GPA of 2.5.

ED 333 Social Studies in the Elementary School (2 SH)
Curriculum Block is comprised of ED 331, 332, 333 (4 SH content; 2 SH practicum) which provide foundations of curriculum development and implementation. Coursework is integrated with a 60-hour practicum experience in K-6 classrooms with a focus on local, state, and national curriculum standards. Multicultural education is stressed and students design a culturally responsive curriculum unit incorporating social studies facts, concepts and generalizations. Prerequisites: ED 235, ED 245 and a cumulative GPA of 2.5.

ED 341 Language Arts (2 SH)
Literacy Block is comprised of ED 341, 342, 343 (5 SH content; 2 SH practicum) which is designed for students who plan to teach in PreK-6. The 7-hour block of courses with a 60-hour practicum explores the development of spoken and written language and traces the development of reading from birth through pre-adolescence. Understanding the social and cultural contexts for language learning both at home and at school and knowing the cognitive and
psychological factors that exist at various stages of development form the basis for planning the curriculum at school. The practicum provides opportunities to integrate and apply an integrated language arts perspective in a classroom setting. The student is engaged in assessing one child’s literacy development and in planning and implementing an appropriate tutoring program and communicating with parents and caregivers.

This course examines appropriate strategies to assist diverse readers in constructing meaning from text and ways to use technology to improve literacy skills. Strategies are developed for organizing and using space, time and materials to promote the development of a literate environment. Prerequisite: Admission to teacher education.

**ED 342 Reading/ Diagnostic Reading (3 SH)**

Literacy Block is comprised of ED 341, 342, 343 (5 SH content; 2 SH practicum) which is designed for students who plan to teach in PreK-6. The 7-hour block of courses with a 60-hour practicum explores the development of spoken and written language and traces the development of reading from birth through pre-adolescence. Understanding the social and cultural contexts for language learning both at home and at school and knowing the cognitive and psychological factors that exist at various stages of development form the basis for planning the curriculum at school. The practicum provides opportunities to integrate and apply an integrated language arts perspective in a classroom setting. The student is engaged in assessing one child’s literacy development and in planning and implementing an appropriate tutoring program and communicating with parents and caregivers.

The course examines language acquisition through the areas of phonetics, semantics, syntax, morphology, phonology, and pragmatics. Students utilize various diagnostic tools to: construct and use affective measures of literacy behavior, administer running records of leveled text, administer a reading inventory to assess developmental word knowledge, phonemic awareness, phonics and vocabulary, rate, fluency, oral reading accuracy, and oral and silent comprehension. Results from diagnostic assessments are used to design appropriate reading instruction for diverse learners. Identification of the developmental stages of written word knowledge is emphasized. Prerequisite: Admission to teacher education.

Core: CL

**ED 343 Content Area Reading and Writing (2 SH)**

Literacy Block is comprised of ED 341, 342, 343 (5 SH content; 2 SH practicum) which is designed for students who plan to teach in PreK-6. The 7-hour block of courses with a 60-hour practicum explores the development of spoken and written language and traces the development of reading from birth through pre-adolescence. Understanding the social and cultural contexts for language learning both at home and at school and knowing the cognitive and psychological factors that exist at various stages of development form the basis for planning the curriculum at school. The practicum provides opportunities to integrate and apply an integrated language arts perspective in a classroom setting. The student is engaged in assessing one child’s literacy development and in planning and implementing an appropriate tutoring program and communicating with parents and caregivers.

This course focuses on processes of reading and writing with the Virginia English Standards of Learning as the framework for instruction. Strategies involving reading and writing across all content areas are demonstrated, explored, and practiced to meet diverse learner needs. Vocabulary development, writing skills and assessment strategies for socially just teaching are emphasized. Prerequisite: Admission to teacher education.

**ED 351 General Curriculum and Methods for Middle and Secondary Teaching (1 SH)**

Middle and Secondary Curriculum Block is comprised of ED 351, 361, 385. Focuses on general curriculum and instructional methods, pedagogy, and procedures related to teaching in the 6-12 grade levels. Prerequisites: ED 245 and admission to teacher education.

**ED 361 Secondary Methods Professional Field Experience (1 SH)**

Middle and Secondary Curriculum Block is comprised of ED 351, 361, and 385. A 60-hour professional field experience in an area high school. Consists of assignments arranged to provide for breadth of experience within the scope of the candidate’s content area. Grading is on a pass/fail basis. Prerequisites: ED 245 and admission to teacher education.

**ED 385 Content Area Methods for Middle and Secondary Teaching (2 SH)**

Middle and Secondary Curriculum Block is comprised of ED 351, 361, and 385. Focuses on curriculum and instructional methods for middle/secondary endorsements specific to the content areas of biology, chemistry, computer science, English, history and social science, mathematics, English as a second language, and health. Prerequisites: ED 245 and admission to teacher education.

**ED 395 Reading and Writing in the Content Area (3 SH)**

Focuses on processes of language acquisition and reading and writing within the secondary content area. Explores reading and writing within the Virginia English Standards of Learning and a variety of fiction and nonfiction texts that promote literacy in the content areas. Emphasis is placed on understanding reading development, phonemic and phonological awareness, vocabulary development, comprehension strategies, spelling development, and the writing process. Includes a 20-hour practicum in a middle school setting. (2 SH content; 1 SH practicum) Prerequisite: Admission to teacher education.

**ED 401 Examining Foundations of Education (2 SH)**
Examines issues facing American education today. Utilizing a framework that reflects on the historical, philosophical, and sociological foundations, students analyze, synthesize and evaluate issues underlying the role, development, and organization of public education in the United States. Topics include the legal status of teachers and students, professionalism and ethical standards, governance of schools, state assessment and accountability systems, including legal and ethical aspects of assessment. Prerequisite: Admission to teacher education.

Core: WI

**ED 411 Reflective Teaching Seminar and Portfolio (1 SH)**
Promotes reflective practice on pertinent aspects of the student teaching experience, with particular attention given to the impact on student learning. Addresses professional standards of the teaching profession, including the Virginia child abuse and neglect recognition and intervention training. An capstone electronic portfolio is required. Taken concurrently with student teaching.

**ED 421 Student Teaching I: PreK-3 (7 SH)**
Designed for prospective early/primary education (PreK-3) and elementary education (PreK-6) teachers. Three integrated components comprise this experience: (1) Orientation and participatory experiences during the opening week of school, to be fulfilled in the setting where the student will later complete the supervised teaching assignment; (2) Two seven-week placements at two different grade levels and daily classroom teaching responsibilities under the supervision of a cooperating teacher, including observation, reflection, planning, implementation, evaluation, and conferencing; (3) ED 411 Reflective Teaching Seminar. Spring semester student teachers are required to take orientation and participational experiences during the opening week of school in the fall. Prerequisite: Admission to student teaching.

**ED 422 Student Teaching II: PreK-3 (7 SH)**
Designed for prospective early/primary education (PreK-3) and elementary education (PreK-6) teachers. Three integrated components comprise this experience: (1) Orientation and participatory experiences during the opening week of school, to be fulfilled in the setting where the student will later complete the supervised teaching assignment; (2) Two seven-week placements at two different grade levels and daily classroom teaching responsibilities under the supervision of a cooperating teacher, including observation, reflection, planning, implementation, evaluation, and conferencing; (3) ED 411 Reflective Teaching Seminar. Spring semester student teachers are required to take orientation and participational experiences during the opening week of school in the fall. Prerequisite: Admission to student teaching.

**ED 423 Student Teaching II: 4-6 (7 SH)**
Designed for prospective early/primary education (PreK-3) and elementary education (PreK-6) teachers. Three integrated components comprise this experience: (1) Orientation and participatory experiences during the opening week of school, to be fulfilled in the setting where the student will later complete the supervised teaching assignment; (2) Two seven-week placements at two different grade levels and daily classroom teaching responsibilities under the supervision of a cooperating teacher, including observation, reflection, planning, implementation, evaluation, and conferencing; (3) ED 411 Reflective Teaching Seminar. Spring semester student teachers are required to take orientation and participational experiences during the opening week of school in the fall. Prerequisite: Admission to student teaching.

**ED 451 Middle School Student Teaching (7 SH)**
Consisting of three integrated components: (1) Orientation and participatory experiences during the opening week of school, to be fulfilled in the setting where the student will later complete the student teaching assignment; (2) Two seven-week blocks of actual classroom experience at both middle and high school levels under the supervision of a cooperating teacher, including observation, reflection, planning, implementation, evaluation, and conferencing; (3) ED 411 Reflective Teaching Seminar. Spring semester student teachers are required to take orientation and participational experiences during the opening week of school in the fall. Prerequisite: Admission to student teaching.

**ED 452 High School Student Teaching (7 SH)**
Consisting of three integrated components: (1) Orientation and participatory experiences during the opening week of school, to be fulfilled in the setting where the student will later complete the student teaching assignment; (2) Two seven-week blocks of actual classroom experience at both middle and high school levels under the supervision of a cooperating teacher, including observation, reflection, planning, implementation, evaluation, and conferencing; (3) ED 411 Reflective Teaching Seminar. Spring semester student teachers are required to take orientation and participational experiences during the opening week of school in the fall. Prerequisite: Admission to student teaching.

**ED 461 Elementary School Student Teaching (PreK-6) (7 SH)**
A full semester program for art, English as a second language, health and physical education, foreign language, and music majors consisting of integrated components: (1) Orientation and participatory experiences during the opening week of school, to be fulfilled in the setting where the student will later complete the student teaching assignment; (2) Two seven-week blocks of classroom experience at both elementary and middle or high school levels under the supervision of a cooperating teacher, including observation, reflection, planning, implementation, evaluation, and conferencing; (3) ED 411 Reflective Teaching Seminar. Spring semester student teachers are required to take orientation and participational experiences during the opening week of school in the fall. Prerequisite: Admission to student teaching.

**ED 462 Middle/High School Student Teaching (6-12) (7 SH)**
A full semester program for art, English as a second language, health and physical education, foreign language, and music majors consisting of integrated components: (1) Orientation and participatory experiences during the opening week of school, to be fulfilled in the setting where the student will later complete the student teaching assignment; (2) Two seven-week blocks of classroom experience at both elementary and middle or high school levels under the supervision of a cooperating teacher, including observation, reflection, planning, implementation, evaluation, and conferencing; (3) ED 411 Reflective Teaching Seminar. Spring semester student teachers are required to take orientation and participational experiences during the opening week of school in the fall. Prerequisite: Admission to student teaching.

ED 499 Independent Study (1-3 SH)
Individualized studies in specialized topics. Open to advanced students with approval.

EDS 351 Intervention Strategies for Middle and High School Learners with Exceptionalities (3 SH)
A study of culturally and linguistically sensitive general and specialized curriculum and methods used for teaching children with learning disabilities, emotional disturbances and mental retardation in middle and secondary schools and the adaptations which can facilitate integration into general education classrooms. Instructional, evaluative, and self-determination strategies are identified. IEPs and lesson plans will be developed in transition, academic, adaptive behavior and vocational areas. A 15-hour field/clinical experience allows students to teach middle or secondary students with significant learning and/or behavior difficulties. (2 SH content; 1 SH practicum) (Fall 2020)
Offered in alternate years

EDS 371 Assessment, Evaluation and Planning in Special Education (3 SH)
A study of formal and informal diagnostic and evaluative procedures appropriate for children (K-12) with exceptional learning needs. Foci include understanding legal requirements for eligibility, providing prescriptions based on assessment data and general evaluation of instruction. This course has an emphasis on the development of the Individualized Education Plan (IEP). A collaborative "team" approach to due process will be emphasized. A 20-hour clinical experience is required during which the student will use a case study approach to the development of IEP's. Prerequisites: EDS 301. (2 SH content; 1 SH practicum) (Spring 2021)
Offered in alternate years

EDS 375 IEP Development and Implementation (3 SH)
This course provides a working knowledge of the requirements, step-by-step instruction on writing IEPs, skills in data collection and use in decision-making, and strategies for successful meetings to support P-12 students with disabilities in accessing the general curriculum. Prerequisite: EDS 301. (Spring 2021)
Offered in alternate years

EDS 381 Special Education Professional Field Experience (2 SH)
This professional field experience is designed to give prospective teachers experience with exceptional persons through a concentrated 2 1/2-week (6-8 hours a day) placement in a school or community setting. Allows students to experience the demands and changing nature of the learning environment from their morning arrival to the end of a school or work day. Grading is on a pass/fail basis. (Offered summers only)

EDS 401 Supporting Positive Classroom Behavior (2 SH)
This course focuses on techniques used to support behavior change in children with disabilities. Systematic, peaceable classroom interventions are presented and students will learn strategies to prevent inappropriate behavior from occurring or escalating. Students are required to demonstrate various classroom behavior management strategies in the classroom and/or in simulations. (Fall 2020)
Offered in alternate years

EDS 461 Student Teaching: Elementary Exceptionalities (7 SH)
Consisting of three integrated components: (1) Orientation and field experiences during the opening week of school, to be fulfilled in the setting where the student will later complete the student teaching assignment; (2) two seven-week blocks of classroom experience under the supervision of a cooperating teacher, including observation, participation, responsible teaching and conferencing; and (3) Reflective Teaching Seminar (see ED 411). Seven weeks are spent at the elementary (K-6) level and seven weeks at the secondary (6-12) level. Spring semester student teachers are required to take orientation and participational experiences during the opening week of school in the fall. Prerequisite: Admission to student teaching.

EDS 462 Student Teaching: Middle School and High School Exceptionalities (7 SH)
Consisting of three integrated components: (1) Orientation and field experiences during the opening week of school, to be fulfilled in the setting where the student will later complete the student teaching assignment; (2) two seven-week blocks of classroom experience under the supervision of a cooperating teacher, including observation, participation, responsible teaching and conferencing; and (3) Reflective Teaching Seminar (see ED 411). Seven weeks are
spent at the elementary (K-6) level and seven weeks at the secondary (6-12) level. Spring semester student teachers are required to take orientation and participational experiences during the opening week of school in the fall. Prerequisite: Admission to student teaching.

EDS 499 Independent Study (1-3 SH)
Individualized studies in specialized topics. Open to advanced students with approval.

ENGL 201 Global Literatures I: Beginnings (2 SH)
This course introduces students to select works foundational to literary traditions from around the world. It gives students a chance to explore what ancient cultures felt about the gods, gender roles, nature, and war, inviting students to listen for ways these works, as Homer prayed, "sing for our time, too."
Core: CC, LI

ENGL 202 Global Literatures II: 1300-1650 (2 SH)
Global Literatures II exposes the student to major trends in literature through the early modern period, an era of aggressive European expansionism. Although it foregrounds developments in Anglophone literature this course will also consider innovations in other literary traditions, both Western and non-Western.
Core: CC, LI

ENGL 203 Global Literatures III: 1650-1800 (2 SH)
This course explores a selection of poetry, drama, fiction, and prose non-fiction from the eighteenth and nineteenth centuries. Although the course focuses in particular on the Anglophone tradition, readings take into account the increasing frequency of cross-cultural encounter in the modern era and celebrate the contributions of writers from around the globe. A thematic link among texts in Fall 2020 will be journeys to enlightenment.
Core: CC, LI

ENGL 204 Global Literatures IV: 1800-Present (2 SH)
This course grapples with realist, modernist, post-modernist and post-independence poetry, drama, fiction, and non-fiction. While the course focuses on the Anglophone tradition, readings will show the emergence of a global literary marketplace in the twentieth century and celebrate the contributions of various ethnic and minority writers.
Core: CC, LI

ENGL 210 Introduction to the Novel (2 SH)
Taught in conjunction with ENGL 310 History of the Novel during the first session of the semester, this course will equip students with the skills they need to appreciate and learn from fiction. Students may not receive credit for both this course and ENGL 310.
Core: LI

ENGL 250 Introduction to Poetry (2 SH)
Taught in conjunction with ENGL 331 Major Poets during the first session of the semester, this course will equip students with the skills they need to enjoy, be surprised by, and learn from poetry. Students may not receive credit for both this course and ENGL 331.
Core: LI

ENGL 310 History of the Novel (4 SH)
In this class, students will read work by old and new novelists from the eighteenth-century to the present to gain a sense of how novels have changed over time. Students may not receive credit for both this course and ENGL 210

ENGL 312 Ecology and Science Fiction (3 SH)
How do utopic and dystopic visions of the future of our planet affect the way we live in the world? How do these narratives shape our approach to environmental problems today?

ENGL 315 Global Conflicts, Global Novels (3 SH)
In this class, students will read five novels about five different regional conflicts happening in the world today, roughly one from each continent. The goal of the course will be to explore how far the arts of novel-writing and novel-reading overlap with the arts of conflict transformation.
ENGL 322 Shakespeare (3 SH)
This course considers the achievement of one of the most influential writers in the English literary tradition, William Shakespeare. We will conduct close readings of selected texts, paying attention to language, characterization, and important themes. Screenings and stagings will supplement this reading. We will also consider theoretical, critical, and cultural issues relevant to each play.

ENGL 324 Comedy and Tragedy: Page and Stage (3 SH)
In this course, we will consider the ways in which selected plays from the Western tradition elicit our laughter and our tears, sometimes simultaneously. Since much of our texts' magic lies in their performance, we will assume the roles of viewer and actor as well as reader this semester. Authors include Sophocles, Aristophanes, William Shakespeare, Henrik Ibsen, Oscar Wilde, Tennessee Williams, Samuel Beckett, August Wilson, and Margaret Edson. This course is offered on demand.

Core: CL

ENGL 331 Major Poets (4 SH)
This class will give students an opportunity for extensive reading of the work of five or six major poets, some who were writing long ago, some still writing today. Attention will be given to each author's biography and historical context, but most of our attention will be given to the poems themselves, their formal features, how they compare to other poems, how newer poets take inspiration from older ones, and how poetry speaks to us today. An extensive reading of the work of five major poets, from around the world, writing between 1900 and the present. Authors will vary from year to year, so students may take this course more than once. Students may not receive credit for both this course and ENGL 250.

ENGL 344 Ways of War and Peace (3 SH)
This course examines the tensions conflicting allegiances to faith and country may pose by focusing on literature from World War I, World War II, and the Vietnam conflict. A survey of Catholic, Protestant, and Anabaptist theological approaches to peacemaking will provide a framework for the course. In addition to keeping reading response journals and delivering oral presentations, each student will prepare transcribed oral histories with a military veteran or conscientious objector.

Core: CL

ENGL 346 Rooms of Their Own (3 SH)
This course considers a selection of British literary works through the lens of Virginia Woolf's cultural critique in A Room of One's Own and Three Guineas. As we apply that critique to her own fiction as well as texts by her foremothers Jane Austen and Charlotte Bronte and contemporaries H.D. and Dorothy L. Sayers, we will consider the degree to which her diagnosis remains relevant today, particularly within an Anabaptist Christian perspective. The course also focuses on the relationship of selected literary works to the representation and construction of gender roles in the cultures from which they emerge. We will consider writers' articulations of their experiences within their social and ideological contexts, as well as the material conditions under which they write.

ENGL 348 American Manhood (3 SH)
This course explores conceptions of manhood in US literature since the nation's establishment, featuring texts by writers of diverse ethnic backgrounds, including Thomas Jefferson, Samson Occom, Frederick Douglass, Langston Hughes, Lorraine Hansberry, Khaled Hosseini, Gene Luen Yang, and Martin Espada. It also focuses on the relationship of selected literary works to the representation and construction of gender roles in the cultures from which they emerge. We will consider writers' articulations of their experiences within their social and ideological contexts, as well as the material conditions under which they write. A community-learning (CL) designate course, "American Manhood" challenges students to be involved in community settings that relate to course subject matter. Expectations include engagement in critical analysis of community issues and synthesis of classroom-based knowledge and personal experience.

Core: CL

ENGL 350 Literature for Children (3 SH)
This course explores all types of literature for children. The characteristics and history of various types of literature are studied, along with strategies for involving children in every genre. Special attention is given to the study of multi-ethnic literature. Open to sophomores and above.

ENGL 355 Literature for Adolescents (3 SH)
This course concentrates on literature written for and by adolescent/young adult readers. While relying on works typically classified as young adult literature, the course will also look at literary "classics" found within the curriculum for middle, junior, and senior high classrooms. Models of literary criticism employed within the study of these works will center on reader-response theory. Separate tracks are offered for those students who are English majors and for those who are pursuing English with a Teaching Endorsement. (Spring 2021)

Offered in alternate years

ENGL 390-395 Topics in Literature (2-4 SH)
This course will focus sometimes on a particularly long or difficult work of literature, sometimes on work by a particular author or set of authors, and sometimes on a new, emerging trend in literature or literary studies.
ENGL 470 English Internship (1-3 SH)
The professional Internship Program is a cooperative endeavor among upper-level students, the community, and the language and literature department. An internship provides an opportunity for students to explore career options and to extend their classroom experiences and learning with both job-related and academic responsibilities. Department approval required one semester in advance. This course is graded on a P/F basis.

Core: CL

ENGL 499 Independent Study (1-3 SH)
Directed studies in authors, genres, literary movements, problems of criticism and special topics in literature. Open to juniors and seniors by permission of the department.

ENGR 110 Introduction to Engineering and Design (4 SH)
An introduction to the design process of an engineering project. The focus will be on different design aspects of an engineering project: defining the design problem, developing a project statement, generating and evaluating ideas and specifications, leading and managing the process, and communicating the outcomes. The design emphasis facilitates students' development of creative and innovation skills, utilizes state-of-the-art technologies, and allows them to experience fields of engineering such as mechanical, electrical, computer, environmental, etc.

ENGR 156 Math for Engineering Lab (2 SH)
The goal of this lab course is to examine mathematical applications in engineering. Matlab will be introduced and used in solving these problems. The labs cover linear, quadratic, and systems of equations with circuits; trigonometry and vectors with robot arms; sinusoids with circuits and function generators; derivatives with free-fall motion; integrals with work of springs; and differential equations with dynamic mechanical systems.

ENGR 245 Experimental Methods (2 SH)
This course will cover methods for engineering measurements including design of experiments, data analysis including error and uncertainty, introduction to signal analysis, data acquisition and sampling, and general measurement system behavior. Prerequisite: MATH 154 or MATH 185, ENGR 110. (Fall 2021)
Offered in alternate years

ENGR 265 Analog Circuits (4 SH)
An introduction to the design of analog circuits, with an emphasis on hands-on implementation in laboratory exercises in addition to mathematical analysis. The course covers essential circuit components such as resistors, capacitors, inductors, transistors, and op-amps. A variety of passive and active circuits are studied, including filters, integrators, comparators, and amplifiers. Projects include building an AM radio, a homemade op-amp, and PID motor control. Prerequisite: MATH 154 or MATH 185. (Fall 2020)
Offered in alternate years

ENGR 270 Engineering Statics (3 SH)
A problem-solving based approach to the study of the theory and applications of engineering statics. Students will gain expertise in the areas of free-body diagrams, vector mechanics, and equilibrium, and will apply the principles of equilibrium to structural analysis and the analyses of internal and frictional forces. Prerequisites: MATH 185, PHYS 252.

ENGR 280 Engineering Dynamics (3 SH)
Dynamics is the study of accelerated motion of a body through two perspectives, kinematics (geometric aspects of the motion) and kinetics (forces causing the motion). Kinematics and kinetics of particles and rigid bodies will be examined using methods of force and acceleration, work and energy, and impulse and momentum. Prerequisite: ENGR 270. (Fall 2020)
Offered in alternate years

ENGR 291 Engineering Design II (2 SH)
This project-based course will continue using engineering design methods first introduced in ENGR 110. Topics include reverse engineering, tolerances and optimization, design within constraints, and robust design. Prerequisite: ENGR 110 or ENGR 156

ENGR 325 Engineering Ethics (2 SH)
This course focuses on the concepts and practice of ethics in engineering, computer science, and technological contexts, often through the lens of real-world case studies. Topics include professional codes of ethics, broader ethical theories, impact analysis, the environment, privacy, risk, and other current
issues. The interplay among faith, career, and engineering will also be explored in detail. Modes of writing will include both personal reflection and technical analysis. (Spring 2022)
Core: WI

Offered in alternate years

ENGR 330-335 Topics in Engineering (2-4 SH)
The content of this course is determined by the special interest of the faculty and students. Prerequisite: permission of the instructor.

ENGR 350 Fluid Mechanics (4 SH)
An introduction to the concepts of fluid mechanics, including a laboratory component. Topics include hydrostatics; fluid kinematics; conservation laws of mass, momentum, and energy; the Bernoulli equation; potential flows, and similitude. Prerequisites: MATH 310, PHYS 252. (Spring 2022)
Offered in alternate years

ENGR 370 Strength of Materials (4 SH)
The behavior of materials and solid structures under a variety of load conditions will be studied in this course. Students will learn equilibrium, stress – strain response, and strain – displacement relations and apply them to solids analysis. Topics such as materials stretch, bend, twist, etc., the stress – strain response of different materials, the stress within externally loaded bodies, and beam theory with applications to beam deflections and design will be covered. Prerequisites: ENGR 270, MATH 195. (Fall 2021)
Offered in alternate years

ENGR 380 Systems (4 SH)
This course introduces modeling and analysis of dynamical systems that include mechanical, electrical, fluid, and thermal systems. Both input-output and state-space models will be introduced. System analyses in the time domain, as well as the frequency domain, will be presented. This course presents fundamental materials in engineering practice across many disciplines. Prerequisites: ENGR 270, MATH 310

ENGR 390 Engineering Design III (2 SH)
In this design course, students follow the engineering design process with emphasis on thinking through the challenges that arise when moving from problem definition to product delivery, on interdisciplinary collaboration, and on team dynamics negotiation. Teams work closely with clients as they move through conceptual, preliminary, and final designs. The project results in useful products. When the final product is delivered, the teams will also produce a technical report detailing design alternatives, optimization methodology, problems encountered, and solution summary. Prerequisite: ENGR 291.

ENGR 480 Control Systems (3 SH)
This course introduces analysis and design of control systems. Differential equations and transfer functions will be used for modeling of dynamical systems. Stability, tracking, regulation, and sensitivity will be discussed for both open-loop and close-loop structures. The proportional, integral, and derivative (PID) control will be introduced. Root locus, frequency response, and state-variable feedback methods will be presented for feedback control design. Prerequisites: ENGR 380 (Fall 2021)
Offered in alternate years

ENGR 490 Senior Design (2 SH)
This course provides a platform for senior students to work on extensive, year-long, team projects under the guidance of engineering faculty mentors. Prerequisite: ENGR 390.

ENGR 491 Capstone Project (2 SH)
This course provides a platform for senior students to work on extensive, year-long, team projects under the guidance of engineering faculty mentors. Prerequisite: ENGR 390.
Core: WI

ENGR 499 Independent Study/Research (1-3 SH)
Individual study in an advanced topic in engineering. Requirements normally include the preparation of a research paper to be presented at a departmental seminar. Open to juniors and seniors. Prerequisite: faculty approval.

ENVS 135 Earth Science (2 SH)
An introduction to the study of the planet earth, including the processes by which we have synthesized the data and theories describing our planet. A major portion of the course is devoted to topics normally included in a geology course, but the course also includes an introduction to meteorology, climatology and oceanography. This course meets for 7 weeks.

**ENVS 145 Environmental Science (2 SH)**  
Survey of the human impact on natural and cultural ecosystems, including the processes by which the scientific data are collected and analyzed and theories describing our environmental impact formed. Focuses on problems associated with population growth; the use of energy and other natural resources; and water, air and solid-waste pollution. Also presents interdisciplinary techniques for investigating and solving some of these problems. This course meets for 7 weeks.  
Core: NS

**ENVS 181 Environmental Science (3 SH)**  
Survey of the human impact on natural and cultural ecosystems. Focuses on problems associated with population growth; the use of energy and other natural resources; and water, air and solid-waste pollution. Also attempts to present interdisciplinary techniques for solving some of these problems.  
*Offered through Lancaster*

**ENVS 205 Environmental Application of GIS (3 SH)**  
This course introduces Geographic Information Systems (GIS) with an emphasis on their role in environmental and conservation practices. Students first learn basic GIS skills in ESRI's ArcGIS 10.3 software and then conduct an independent research project using GIS techniques. Projects may include but are not limited to local natural resource or landscape issues. Independent projects require an oral and poster presentation. Required for students in the environmental science track of the environmental sustainability major. (Spring 2022)  
*Offered in alternate years*

**ENVS 235 Sustainable Food Systems (2 SH)**  
This course explores questions of sustainability in global food systems. Agricultural, food transportation, food storage, and food processing and production systems are compared with regard to energy-use relative to nutrient-production efficiency, as well as social, cultural and economic sustainability aspects of food systems including international food commodity trade and food trade policy, food islands, farm-to-table restaurants, and small local organic production. This course meets for 7 weeks. Core Natural Science designate. Prerequisite: BIOL 173, SOC 245 or instructor approval. (Fall 2021)  
Core: NS  
*Offered in alternate years*

**ENVS 255 Environmental Ethics (2 SH)**  
Different ethical theories concerning the environment will be articulated, with a focus on Anabaptist theological perspectives, and the role of ethics in civic society. Ethical perspectives are examined through their application to contemporary issues in sustainability. This course meets for 7 weeks. Prerequisite: BIOL 173. (Spring 2021)  
*Offered in alternate years*

**ENVS 325 Soil Science (2 SH)**  
This course is an introduction to the fundamental concepts of soil science, including soil genesis, classification and morphology, physics, chemistry, and hydrology. Particular emphasis is placed on soil maintenance and improvement for sustainable food production and mitigation of environmental problems. The course involves several short hands-on lab and field activities. This course meets for 7 weeks. Prerequisite: CHEM 223 and an annual safety training outside of class. (Fall 2021)  
*Offered in alternate years*

**ENVS 355 Environmental Risk and Policy (2 SH)**  
This course addresses principles of risk assessment, perception and management, using issues in environmental contaminants as a frame. Examines how people individually and as a society perceive risk, and how risk is dealt with through policy options. This course meets for 7 weeks. Prerequisite: BIOL 173. (Spring 2021)  
*Offered in alternate years*

**ENVS 379 Techniques in Environmental Monitoring (1 SH)**  
This lab and field based course provides training in techniques related to an environmental monitoring effort, equipping students with specific skills to prepare them for a career in environmental, chemical or ecology monitoring. Specific techniques vary depending on instructor and may focus on water, air, or soil quality. Past and potential topics include stream macroinvertebrate collection and identification as a biomonitoring technique to measure water quality and . . . .This course does not satisfy any EMU Core requirements. Prerequisite: an annual safety training outside of class. (Fall 2021)  
*Offered in alternate years*
ENVS 385 Conservation Biology (4 SH)
A study of global biodiversity, its importance, and the environmental, social and economic factors that affect it. Current threats to biodiversity, including species extinction, habitat degradation, invasive species, and over exploitation of natural environments are examined. The class also focuses on efforts to manage and maintain biodiversity, including how human development, culture and social systems impact conservation efforts. Laboratory work will emphasize population ecology and animal and plant survey techniques as well ecological and economic modeling used to make management decisions. Prerequisite: an annual safety training outside of class and BIOL 235 or instructor permission. (Fall 2021)
Offered in alternate years

ENVS 429 Environmental Sustainability Internship (3 SH)
This course serves as a practical application of environmental principles and knowledge within a specific discipline of interest and as a way of gaining experience outside of EMU in an area of concentration. The internship will vary with a student's particular interest but typically involves either working on a research project or participating in an internship at an appropriate organization (e.g. environmental consulting firm, government agencies, conservation organization, agricultural research center or farm utilizing alternative/sustainable methods). Open to junior or senior level environmental science majors only.
Core: CL

ENVS 430 Environmental Sustainability Capstone (2 SH)
An integrative capstone for all majors in environmental sustainability. A cohort of students apply their learning in the areas of natural sciences and social sciences to an environmental issue that has multidisciplinary components. Processing and reflection occur through weekly meetings with faculty and peers. Students write a substantial thesis centered on the environmental issue chosen. Seniors from related majors may participate with permission of instructor.
Core: WI

ENVS 465 Topics in Advanced Ecology (2 SH)
An advanced ecology course emphasizing a distinct branch of ecology and/or an investigative field technique. Specific foci vary from year to year depending on instructor. Past course have focused on forestry, restoration ecology, and animal population survey techniques. The course includes significant field work as well as an introduction to ecological research design and data analysis. Prerequisite: BIOL 235 and an annual safety training outside of class. This course meets for 7 weeks. (Fall 2021)
Offered in alternate years

ENVS 499 Independent Study (1-3 SH)

FIN 289 Investment Club (1 SH)
Introductory to advanced levels, students will learn about personal investing within the broad context of personal finance and stewardship of money resources. Students with little to no background will start with the basics, while more advanced students work independently on instructor-guided projects at their unique level of understanding and interest. This course may be taken up to two times for credit, and more with audit. While Investment Club is open to students of all majors and levels, it is especially encouraged for juniors and seniors as preparation for their next phase of life and career.

FIN 440 Financial Management (3 SH)
An introductory course in the theory and practice of corporate financial management. Topics covered include the role and function of financial markets, interest rates, time value of money, valuation of financial assets, capital budgeting analysis, cost of capital, risk and return, capital structure decision, dividends and working capital management. Prerequisites: ACTG 221, EMU Core MATH requirement completed, and admission to the department. (except non-department students pursuing Finance Career Concentration). (MBA 640)

FIN 481 Finance Internship (1-3 SH)
Work experience designed to integrate theory and practice and expose students to the work and purpose of finance. Frequent consultation with - and assignments to - the faculty advisor guide the student's experience. Travel and personal expenses are the student's responsibility. Can be taken any term, including summer. Grading is pass/fail. Prerequisites: junior or senior standing, admission to the department (except non-department students pursuing the Finance Career Concentration), and a department GPA of at least 2.70. The Internship Coordinator must approve internships before they commence.
Core: CL

GEOG 231 Cultural Geography (3 SH)
A geo-cultural study with an introduction to the many variations in the human habitat. It applies the regional concept to the study of cultural geography.
Core: CC
GS 101 Introduction to Global Studies (2 SH)
This course prepares students to think critically and reflectively about issues of globalization, take a global view of contemporary issues across states, societies, and cultures, and consider their own place in a global context. Significant attention is given to peacebuilding and to social, political, economic, and ecological justice explored within the larger context of globalization.
Core: CC

HAL 350 Crisis, Humanitarian Aid and Disaster Recovery (3 SH)
Crisis threaten global human security today as never before. These crises are caused by a complex mix of natural hazards (i.e., floods, earthquakes, or drought) and human action or inaction. This course explores how humanitarian assistance and disaster recovery efforts can best promote resilience by reducing vulnerability and risk. The history and values of the humanitarian enterprise will be addressed along with the standards of response. Community and organizational responses to humanitarian crises will be examined, emphasizing efforts to improve aid quality and accountability, often in contexts of conflict.

HAL 370 Leadership Skills and Traits for Common Good (3 SH)
Humanitarian workers throughout the world are faced with the need to collaborate, to quickly assess, plan and manage projects. We begin with a focus on personal formation including a focus on interpersonal and intercultural relationships along with leadership self-assessment and a plan for development. Also included are requisite skills for humanitarians including leading meetings, creating collaborative coalitions and partnerships, community assessments/action research and project planning and monitoring. Significant attention will be given to trauma and resilience at personal and community levels.

HAL 410 Disaster Response Internship (3 SH)
A required practicum provides HAL minor students with direct experience in a humanitarian situation either domestically or internationally. This will typically be during a summer and should be for at least 4 weeks. Internships will be arranged through the HAL center director and with relevant agencies such as Mennonite Disaster Service, Mennonite Central Committee, or other relief and development agencies.
Core: CL

HE 201 First Aid (1 SH)
Principles of administering first aid and adult CPR in all aspects to victims of accidents and sudden illnesses are covered. WFA, AWFA, WEMT, WFR, EMT-B, or Red Cross standard first aid (all with CPR credential) will satisfy.

HE 202 Health and Safety (2 SH)
This survey course examines general health and safety issues. As a state requirement for education licensure, the course content includes not only general information but also signs and symptoms of various disease states and possible means of intervention. Students are encouraged to evaluate their lifestyles to determine where modification would be beneficial. Fulfills Life Wellness credit for selected education students. Registration priority is given to students whose programs require this course. Prerequisite or corequisite: WRIT 130 or WRIT 140.

HE 260 Teaching, Ministry, and Healthy Sexuality (3 SH)
This course explores the meaning and purpose of human sexuality from a theological perspective. It is designed to meet curriculum requirements for Health and Physical Education, Education, Bible and Religion majors, and to serve other students whose career interests include working with youth. It will prepare students to teach/lead/minister with youth and young adults on sexuality-related questions, including learning how to avoid and prevent sexual harassment and abuse. Sophomore standing required for enrollment. (CHST 260)

HE 301 Athletic Training (2 SH)
This course provides instruction in basic procedures for prevention, maintenance and rehabilitation of athletic injuries. Provides laboratory experience in taping, wrapping and usage of various modalities. Prerequisites: BIOL 112 OR BIOL 437.

HIST 101 US History I: Race and Reason (to 1860) (2 SH)
A lecture-based survey of U.S. history that highlights major events in Virginia history and politics, the American Revolution, the development of the U.S. and Virginia Constitutions, and the role of religion and culture, while providing a general overview of how the U.S. became a nation-state. Topics include: the creation and tragedy of race-based slavery, the emergence of a capitalist economy, the battle for women's rights, and the impact of immigration and urbanization. This course is highly recommended for first-year students as it helps develop study and success skills. Core: HI

HIST 102 US History II: Mechanization and Modernization (1860-1918) (2 SH)
A lecture-based survey of U.S. history that focuses on the change and tension created by the rapid expansion of industrial innovation and capitalism that drove the mechanization and modernization of America from the Civil War through the Great Depression. Topics include: the Civil War, Reconstruction, Western expansion, Imperialism, Progressivism, race and gender reforms, mass immigration and urbanization, fundamentalism, WWI, and the boom and collapse of the U.S. economy. This course is highly recommended for first-year students as it helps develop study and success skills.

Core: HI

HIST 103 US History III: Power and Paradox (1918-present) (2 SH)
A lecture-based survey of U.S. history that addresses the contradictions and complications of America's rise to global superpower following WWII. Topics include: WWII, consumer culture, suburbanization, the Cold War, Civil Rights, Vietnam, the New World Order, 9/11 and the embrace of and backlash against the expansion of rights, expectations, and what it means to be American. This course is recommended to all students wanting a better general understanding of contemporary American culture, politics, and society.

Core: HI

HIST 121 Global Past I: Civilization (to 1400) (2 SH)
This course will provide a broad overview of world societies and civilizations and the increasing connection among them from the beginning of human experience to the fifteenth-century. With a "Big History" approach as our background, the course will cover the political, philosophical, and cultural legacies of ancient American, Asian, African, and European civilizations, including the rise of major world religions.

Core: CC, HI

HIST 122 Global Past II: Modernization (post-1400) (2 SH)
This course takes a global history approach that seeks, as much as possible, to avoid a Eurocentric view, even as we explore the effects Western modernization has had on the world. A major focus will be attempting to explain why, how and when the imbalance of wealth and power among regions of the world developed.

Core: CC, HI

HIST 123-126 Global Past III: Comparative Themes (2 SH)
This course will use a comparative, in-depth approach to explore one theme in world history. The learning style will be careful reading of primary and secondary sources, memoirs and/or fiction, processed by class discussion and writing. Occasional lectures and films will provide context. The course schedule will list the specific theme for the semester, such as Epics or Revolutions. Previous background in world history strongly encouraged (such as HIST 121 and/or 122).

Core: CC, HI

HIST 182 Global Past II: 1500 to the Present (3 SH)
This course will cover a broad overview of the history of the world from circa 1450 to the present by looking at major developments and points of contact between Asia, Latin America, Africa, the Middle East and Europe. The main themes will revolve around revolutions and their influence on the fall and rise of empires within a globalizing world. We will examine the appeal and shortcoming of Liberalism, Communism, Fascism, and Islamism, and contemplate the tensions between liberty and order; liberty and equality, individualism and common welfare; and idealism and reality.

Core: HI

Offered through Lancaster

HIST 222 African-American History (3 SH)
A narrative history of the African-American experience, driven by the study of African- American literature and culture. Beginning with the development of race-based slavery and ending with current issues of blackness and whiteness, this course will trace the changing history of what it has meant to be "black" in the context of "white" America. (Spring 2022)

Core: CL

Offered in alternate years

HIST 231 Medieval Europe (3 SH)
A history of Europe from the late Roman Empire to the fifteenth century, with emphasis on the political, social, cultural and economic developments. Events and themes include feudalism, the rise and development of Christendom, art and architecture, church/state tensions, the Crusades, courtly love, monasticism and women. Personalities include kings and queens, popes, knights and women mystics. (Spring 2021)

Core: HI

Offered in alternate years

HIST 251 History of Africa (3 SH)
A general survey of African history from the pre-colonial to contemporary era, addressing religious and cultural shifts across various regions, the impact of Islamic and European colonization, the quest for independence, post-colonialism, and the complications of nationalism and globalization. (Fall 2021)
Core: CC

Offered in alternate years

**HIST 312 19th Century America, A Novel History (3 SH)**
This course explores the years of national development from Jacksonian America to the end of the 19th century through the popular literature of the era, examining American self-idealization and reform, commercial and early industrial development, continental expansion, regionalism, slavery, and the growing issues of race, gender, and class. Special attention is given to the Civil War and to the experiences of women, immigrants, Native Americans and African Americans. Taking HIST 101 before this course is highly recommended. (Spring 2021)
Offered in alternate years

**HIST 321 Modernizing America, 1870-1940 (3 SH)**
This course is a study of the United States during the "Modern" period, a time when the country moved from a booming but tattered nation reeling from a civil war to an international giant with immense military and industrial power. Major themes include industrialization, economic vitality, immigration, urbanization, the Social Gospel and Progressive movements, normalization, World War I, the rise of the "New Negro," and the New Deal. Taking HIST 102 before this course is highly recommended. (Fall 2020)
Offered in alternate years

**HIST 340-345 Topics in History and Gender (3 SH)**
This course is offered as instructors with special expertise in an area are available to offer unique or trial content.

**HIST 352 History of Women (3 SH)**
A comparative study of how women around the world (organized around themes such as family, economics, politics, and sexuality) have experienced history. Emphasis will be on understanding changing gender roles in light of different historical events and cultures. The course will also provide an opportunity to examine current gender issues and become familiar with gender theory. (Spring 2022)
Core: CC, HI

Offered in alternate years

**HIST 362 Renaissance and Reformation (3 SH)**
A study of the Italian and Northern Renaissance movements and a careful examination of the 16th-century reformations, both Protestant and Catholic. Besides cultural, intellectual, religious and political aspects of the period, social history and gender themes will be considered. Students will get to know diverse personalities such as Michelangelo, Machiavelli, Bloody Mary, and Martin Luther and be able to understand them in their historical contexts. (Spring 2022)
Offered in alternate years

**HIST 365 Mennonite History and Thought (3 SH)**
A survey of the Anabaptist movement and Mennonites throughout the world from the sixteenth to twenty-first centuries. Issues include pacifism, wealth, political participation, community and tensions between faith and the dominant culture. Particular attention is given to the Anabaptist vision and its relevance for 21st-century American life. (CHST 365) (Spring 2021)
Core: CW

Offered in alternate years

**HIST 385 Monuments to Murals: Exploring Social Issues Through DC's Public Art (3 SH)**
Students attend and review museum exhibits, plays and concerts and participate in guided tours of public art in the city. Reading and writing assignments focus on the relationship between art, Washington, D.C.'s social history, and contemporary issues.
Core: CC, HI, WCSC

**HIST 391 Birth of Modernity in Europe: The Seventeenth and Eighteenth Centuries (3 SH)**
The origins of many modern realities are found in this period of European history: imperialism, liberalism, conservatism, representative government, skepticism, religious tolerance, standing armies, laissez-faire capitalism, and a faith in science, reason and technology to bring about progress. This course uncovers these origins through a survey of political, social, economic, gender and cultural history from 1550 to 1815. Major themes include religious
warfare, the witchcraft craze, overseas expansion, Rembrandt's Amsterdam, the Scientific Revolution, absolutism and constitutionalism, the Enlightenment, and the French Revolution, culminating in Napoleon's empire. Students will try to grasp the mentality of the era through philosophy and literature from the times and through historical film. (Fall 2020)

Offered in alternate years

HIST 411 The History of Recent America (4 SH)
This writing intensive course begins with World War II and then marches through the Cold War, suburbanization, the civil rights movements, and the ever-expanding U.S. presence in global issues via the study of multiple cultural texts (novels, films, music, memoirs, etc.). Major themes include radical political movements, Vietnam, Watergate, TV-culture, the Religious Right, and current political and social issues. Special attention is paid to U.S. involvement in global activities from the end of the Cold War to the present, with a strong emphasis on what "makes America American." Taking HIST 103 before this course is highly recommended. (Fall 2021)
Core: WI

Offered in alternate years

HIST 432 History of the Middle East (3 SH)
A historical survey of the Middle East. The particular focus may vary based on the instructor's expertise. The role of past and present U.S. foreign policies in these countries will be highlighted. (Fall 2020)
Core: CC

Offered in alternate years

HIST 435 Martyrs, Merchants and Mendicants: 1500 Years of the Christian Movement (3 SH)
This course provides an overview of the stories of Christianity, beginning with the New Testament period up to the sixteenth century of the Common Era. It describes the successes and failures in the life and witness of Christians as they spread west into Europe, east toward China, and south into Africa. It evaluates diverse Christian approaches shaped by these themes: women/men, mission/enculturation, church/state, war/peace, and wealth/poverty. (CHST 435)
Core: WI

HIST 441 History Internship (1-3 SH)
Designed for upper level history majors who want to explore career options and gain practical experience in fields that pertain to history. Placements include museums, historical societies, libraries, archives, law firms and government offices. Approval from the history department needed one semester in advance. Students take initiative in arranging their own placement. Internship can be completed in the summer. Grading is on a pass/fail basis.
Core: CL

HIST 461 Modern Europe (3 SH)
A history of Europe from the French Revolution to the present. Themes include revolution, industrialization, women's suffrage, militarism, imperialism and genocide, the rise and fall of communism, the world wars, fascism, the reunification of Eastern and Western Europe, the emergences of the European Union, and current issues such as immigration, terrorism and neo-nationalism, and the splintering of the E.U. (Fall 2021)

Offered in alternate years

HIST 499 Independent Study (1-3 SH)

HONRS 111 Ruling Ideas Seminar (3 SH)
This course runs every fall semester and is led by the director of the Honors program and/ or other members of the Honors faculty. It is available to all students entering EMU with an Honors Scholarship and is highly recommended to all students entering the Honors Program as sophomores or as transfer students. The course is designed to investigate the central ideas of various academic disciplines and higher education generally. Together, students and faculty begin to explore and examine the goals of the program spelled out above.

HONRS 312 Honors Colloquium (3 SH)
Colloquium courses explore a specific topic chosen by the professor and are designed to be provocative and challenging but accessible to students of any major—no prerequisites are required. These courses run every semester and course topics vary. All EMU students are invited to take these courses, but Honors students in the Honors Program have priority for enrollment. Upcoming courses are Fall 2020: "Acts of Resistance: Walking, Pilgrimage & Rock'n'Roll" (Chad Gusler); Spring 2021: "You are Here: Creative Engagement with Big History & Deep Time" (Daniel King); Fall 2021: "Toward a Decolonial Reading of Marx' Capital" (Tim Seidel); and Spring 2022: "We are the Fish and Trauma is the Water" (Paul Yoder).
HONRS 401 Worldview Seminar (2 SH)
This course is required for the Honors Program and should be taken during the senior year. Students will be expected to explore and articulate their worldview through interactive projects and practices. This course satisfies the EMU Core requirement for CORE 401 Senior Seminar. It may be taken by other Honors students if room permits.

HONRS 431 Honors Teaching and Leadership (0-2 SH)
This course is designed for juniors and seniors in the Honors Program. Students work closely with a professor to help form, shape, and guide a class. It is a way for students to provide service to the university and their fellow students, and to develop valuable organizational and leadership skills. These course hours may be applied toward the distributive portion of the Honors Program curriculum and the course may be repeated multiple times. Interested students and professors should contact the Honors director for a syllabus template for the course; they will then jointly modify it to fit their particular needs. The completed syllabus should be submitted to the Honors director and the registrar.
Core: CL

HONRS 451 Honors Capstone (1 SH)
This course is required for the Honors Program and should be taken during the senior year. The Capstone will be directed by a professor or professional from within the student's primary area of study. It will include an extensive project and a public presentation of the results.

HONRS 499 Independent Study (1-3 SH)

HUM 200 Foundations of Humanities (2 SH)
This team-taught, interdisciplinary course serves as an introduction for several humanities disciplines including history. It is designed to teach students critical, close reading skills for historical and modern media, research and documentation skills, and to expose students to a wide variety of academic methods of scholarly inquiry.
Core: WI

HUM 213 Bach Festival (3 SH)

HUM 330-335 Topics in Humanities (3 SH)
This course will provide innovative, topical approaches to varying humanities topics. It may be repeated as topics shift from year to year.

HUM 420-425 Tutorial (3-4 SH)
This course will be largely self-directed and will require a great deal of independent student work, often in project-focused groups. It may be repeated as topics shift from year to year.

HUM 490 Humanities Seminar (4 SH)
A team-taught interdisciplinary seminar that serves as a capstone for many humanities programs, including history. It provides students an opportunity to complete a long, research-based scholarly project while also exposing history students to historiography and various careers in history.
Core: CC, WI

LANG 110 Elementary Arabic I (3 SH)
The fundamentals of Arabic through listening, speaking, reading and writing, including practice in pronunciation and development of comprehension. (Fall 2020)
Core: CC
Offered in alternate years

LANG 140 Elementary Mandarin I (3 SH)
The fundamentals of Mandarin Chinese through listening, speaking, reading and writing, including practice in pronunciation and development of comprehension. (Spring 2021)
Core: CC
Offered in alternate years
LARTS 101 College Success Strategies I: Beginning the Course (2 SH)
A college success course that focuses on study skills needed to succeed in college. Assessment and development of individual learning styles and strengths are part of the course curriculum. Students receive course credit when learning outcomes of the course are met; credit is considered elective, not part of the EMU Core or major requirements. Instructor permission required.

LARTS 110 College Success Strategies II: Back on Course (2 SH)
A college success course that focuses on strategies needed to achieve full potential in students’ academic, personal, and professional life. Self-assessments, readings, and guided exercises are part of the course curriculum. Students receive course credit when learning outcomes of the course are met; credit is considered elective, not part of the EMU Core or major requirements. Instructor permission required.

LARTS 181 Global Connections (1 SH)
This course invites students of diverse cultural backgrounds and experiences to engage in thoughtful analysis of cross-cultural communication and the accompanying emotions, challenges and opportunities. International, third-culture individuals (TCKs), and American students participate in a common seminar encouraging critical thinking, dialogue and reflection. First-year international students are strongly encouraged to take this course to help facilitate their transition to an understanding of North American culture and EMU's academic culture.

LARTS 201 Major and Vocational Exploration (1 SH)
The course will provide an introductory framework for the vocational decision making process. It stresses the connection between student career objectives and potential EMU major choices. Students will examine previous experiences and future possibilities, develop potential career plans and networking to develop future plans.

LARTS 203 Professional and Vocational Exploration (3 SH)
The course will provide a deep dive into the vocational decision-making and career planning process. Students will learn valuable skills in self-assessment, reflective work, job search skills, and networking as they develop future plans. Students will engage in exercises to begin putting plans into action to move toward achieving career-related goals.

Offered through Lancaster

LARTS 256 Commuter Cycling (1 SH)
Students will learn the arguments for cycling as sustainable transportation, study commuter cycling activism in the US, learn basic bicycle maintenance and promote cycling on campus.
Core: CL

LARTS 281 Student Life and Student Leadership (1 SH)
This seminar style course provides students in campus leadership positions with training in the areas of effective leadership and teamwork, social comprehension, restorative justice/ restorative practices, and basic helping skills. The course provides opportunities for discussion and interaction among student leaders focusing on contemporary issues in college.

LARTS 390 Peer Tutoring Practicum I (1-3 SH)
This one to three credit course is offered by the Academic Success Center and Writing Program. Students explore a variety of topics (tutor role, learning strategies, diversity issues, and ethics) in conjunction with supervised tutoring. The course may be linked with specific professors and courses of academic departments. Practicum requirements will reflect credit hour enrollment and appropriate tutor support offerings of linked department. See the Director of the Writing Program or the Director of the Academic Success Center for approval to register. Prerequisites: earned B grade in WRIT 130 or WRIT 140 (writing tutors), department recommendation (subject-specific tutors), 3.0 cumulative GPA (all tutors).

LARTS 391 Peer Tutoring Practicum II (1-3 SH)
This one to three credit course offers additional tutoring experience with supervision from the appropriate faculty member. The course may also be linked with specific professors and courses of academic departments. LARTS 391 serves as a Community Learning designate. Prerequisite: LARTS 390 or consent of practicum professor and, if applicable, consent of academic department professor. Students may enroll in LARTS 390 and 391 for a maximum of three credit hours for peer tutoring over one to three semesters.
Core: CL
LARTS 410 Liberal Arts Internship (1-3 SH)
This course supports experiential learning in which students apply their academic foundation in supervised work settings. Students who have completed an internship or have an internship in progress are eligible to enroll in this course. The internship is intended to enhance students’ professional growth, competencies and professional exploration. Students will identify and develop skills and experiences directly relevant to achieving intended career goals, reflect on their experiences and find meaning in them, and develop a better understanding of their chosen career field and evaluate that field as a long-term career path. Students may earn 1 credit per 40 hours of direct service in a company/organization (up to 3 credits).

LARTS 499 Independent Study (1-3 SH)

LEAD 281 Leadership Practicum (1 SH)
This is an opportunity for students to explore leadership and gain limited practical experience in an organizational or team setting. Students will log at least 40 contact hours and complete some reflective written reports. Travel and personal expenses are the student's responsibility. Can be taken during the summer. Graded on a Pass/Fail basis. Prerequisites: Sophomore+ status and EMU Cum. GPA 2.0 or better. (must apply one month in advance to secure placement).
Core: CL

LEAD 300 Leadership Theory and Practice (3 SH)
This course will focus on understanding leadership from theoretical and personal perspectives. From the theoretical perspective, it reviews historic and current thought on leadership including how power and identity influence leadership perceptions. From the personal perspective, students will develop their identity as a leader through reflecting on their own gifts, skills and leadership experiences in a practice setting.
Core: SB

LEAD 481 Leadership Internship (1-3 SH)
Work experience designed to integrate practice and theory, to give LEAD majors insight into current policies, procedure, and problems in all types of organizations. Frequent consultation with and written reports to the faculty advisor guide the student's experience. Travel and personal expenses are the student's responsibility. Can be taken during the summer. Grading is on a Pass/Fail basis. This is highly recommended for LEAD majors. Prerequisite: Admission to the department, junior or senior standing, and a department GPA of at least 2.7. The internship director must approve the internship before it commences.
Core: CL

LEAD 499 Independent Study (1-3 SH)
Supervised readings and/or research in leadership. Oral or written examinations and presentation of findings may be required.

LING 250 Introduction to Linguistics (0-3 SH)
This course is dedicated to the study of the essential nature of languages with English as the primary, but not only, example. Students learn to use some of the tools of linguistic analysis to learn about phonetics, phonology, morphology, and syntax, and examine broader concepts of language typology, discourse, language variation, and the history of English.
Core: CC

LING 260 Grammars of English (3 SH)
Using the tools of applied and corpus linguistics, students examine in detail the structural features of English. The course considers issues raised in traditional prescriptive grammars and by modern proponents; and it highlights the application of grammar to students' written prose style. Separate tracks emphasizing grammatical analysis of literary style or grammar pedagogy are provided depending upon student interest.

LING 360 Language Learning, Literacy, and Culture (3 SH)
This course considers how humans acquire their first language and other languages. How do power, personal identity, social inequalities and other socio-cultural factors influence acquisition of language and literacy skills? Of special interest are the challenges facing learners outside the mainstream culture who acquire skills in English as an academic language. Practical implications for teaching are considered. Prerequisite: Sophomore standing or permission of the instructor. (Spring 2021)
Offered in alternate years

LING 460 Practicum in TESOL (3 SH)
Supervised teaching in an ESL classroom or in one-to-one instruction of English to non-native speakers of English. Lesson plans and reflections are prepared for each of 60 hours taught. Application for approval is due prior to registration week. Prerequisite or corequisite: Admission to teacher education, ED 351, and ED 385.
LING 470 Internship (1-3 SH)
The professional Internship Program is a cooperative endeavor among upper-level students, the community, and the language and literature department. An internship provides an opportunity for students to explore career options and to extend their classroom experiences and learning with both ob-related and academic responsibilities. Department approval required one semester in advance. This course is graded on a P/F basis.

LIT 230 Global Literatures III: 1800-present (3 SH)
Global Literatures III explores a selection of romantic, realist, modernist, post-modernist, and post-independence poetry, drama, fiction, and prose non-fiction. Although the course focuses in particular on the Anglophone tradition, readings also reflect the emergence of a global literary marketplace in the twentieth century and celebrate the contributions of various ethnic and minority writers.
Core: CC, LI
Offered through Lancaster

LOM 320 Leadership Development (3 SH)
The emphasis in course one is on the experiential nature of nontraditional education and adult development theory. Students will be familiar with various theories and instruments that will provide a cognitive basis for personal analysis and understanding. The objective of this interdisciplinary course is personal discovery through examination of issues in adulthood as studied in the fields of literature, wellness, and gender studies.

LOM 350 Organizational Behavior (3 SH)
Students study the foundational theories and approaches to organization structure, design, and culture. Primary emphasis is placed on understanding the organization as an open system. Students will learn to utilize a systems approach in basic organizational diagnosis. Contingency theory provides a theoretical framework for understanding the impact of the business environment on organizational effectiveness, design, and change.

LOM 360 Groups and Individuals in Organization (3 SH)
This course is a study of group and individual behavior in organizations and how these impact organizational effectiveness. Emphasis is placed on decision making, group dynamics, emotional intelligence, and resolving conflict. Students develop strategies for efficient and productive group management and determine which tasks are best handled by groups or individuals

LOM 380 Team Dynamics (3 SH)
This is a practical course on the skills and practice of team building and leadership. Students will become familiar with team types, roles, composition and processes, and assess personal team and leadership skills. Classes are structured around weekly simulations that provide experience with teams and team leadership. A secondary emphasis is a focus on communications and effective interpersonal relationships. Students will also develop understanding of theories of motivation and conflict management and their applications in team building.

LOM 405 Organizational Research (3 SH)
This course guides the student in understanding the research process and becoming a critical consumer of research. Organizational research concepts are examined in both qualitative and quantitative methodologies. Students critically read and critique organizational research.

LOM 410 Human Resources Management (3 SH)
This course demonstrates the effective merging of the practice and perspectives of management and the Human Resources professional. Students will understand that human resources management recognizes the value of the employee as a key contributor. In so doing it provides a management challenge necessitating the personal as well as professional development of the employee. It goes far beyond the quest for increased productivity resultant from capital improvements by including in management techniques designed to obtain maximal contributions from the members of the organization.

LOM 420 Leadership Theory (3 SH)
During this course, students will examine the principles of management and leadership which underlie the behavior of organizations. As in earlier courses, a systems approach will be emphasized wherein the organization is viewed as a dynamic and changing system. Working predominantly in groups, students examine motivational theory and its application to individual and group functioning in work and home situations. Leadership styles related to particular circumstances are analyzed.

LOM 430 Leadership Practice (3 SH)
Expanding upon the previous course, students will put their leadership theories to practice as their knowledge, skills, and abilities are tested against real-world scenarios. This course gives the student space to be introspective as they look back over the months of education and determine how their beliefs
and styles may have changed. Experiential and application-based learning are utilized throughout this course to develop the student's individual leadership style.

**LOM 440 Global Trends in Economic Justice (3 SH)**
This course examines global economic trends, theories of justice, and issues in economic justice. A variety of written materials, historical literature, and contemporary culture are examined for their perspectives on economic justice and fairness. Local, national, and international perspectives on economic development and justice are studied. Students will develop a deepened and more nuanced perspective on issues of poverty and justice.

**LOM 460 Application of Research (2 SH)**
Students combine their research and practical implementation of theories and concepts in this capstone project. The project examines an area of the student's occupation or avocation. The student's project will be written and presented orally to the instructor and cohort learning group. LOM 461 Application of Research Project in Aviation (for Aviation concentrators only) will be offered for 3 credits and as a traditional semester length course.

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Offered through Lancaster

MATH 114 College Algebra (2 SH)
Equations and inequalities, polynomials, rational functions, exponential functions, triangle geometry.
Core: MATH

MATH 120 Math for Social Decision Making (2 SH)
Game theory, fair division, apportionment, voting methods, consumer finance.
Core: MATH

MATH 134 Finite Math: Logic and Problem Solving (2 SH)
Logic, geometric constructions and transformations, set theory, graph theory, programming.
Core: MATH

MATH 136 Finite Math: Number Theory and Probability (2 SH)
Number theory (including number systems, modular arithmetic, divisibility, prime numbers), counting, probability.
Core: MATH

MATH 144 Precalculus (2 SH)
Trigonometric functions and identities, periodic functions, logarithms, summation notation, advanced algebraic manipulations, introduction to limits. Offered every fall. Prerequisite: Math 114 or equivalent.
Core: MATH

MATH 150 Elements of Calculus (3 SH)
A survey of the concepts of differential and integral calculus. This course emphasizes the applications of calculus to problems in business, economics and the sciences. A graphing calculator is required. Credit will not be given for both this course and MATH 185. Prerequisite: a grade of C or better in MATH 144 or MATH 154 or high school equivalent. (Spring 2022)
Core: MATH
Offered in alternate years

MATH 154 Math for Engineering (2 SH)
This course is intended to prepare engineering students to take beginning courses in engineering and calculus. Students will gain a working knowledge of the mathematics used in the study of measurement, circuits, statics, and dynamics. Offered in conjunction with ENGR 156.
Core: MATH
MATH 170 Discrete Mathematics (4 SH)
Discrete Mathematics serves as an introduction to advanced mathematics. In addition to learning material that is fundamental to mathematics and computer science, this course will emphasize logical thinking, problem-solving, and communication about abstract problems. Topics include set theory, number theory, logic, relations, mathematical induction and other forms of proof, combinatorics, and graph theory. Prerequisite: Four years of high school mathematics, or permission of instructor.
Core: MATH

MATH 185 Calculus I (4 SH)
A study of the fundamental concepts of the derivative of single-variable functions, including limits, continuity, differentiation techniques, and applications. The course also includes an introduction to integration. A graphing calculator is required. Credit will not be given for both this course and MATH 150. Prerequisite: a grade of B or higher in MATH 144 or MATH 154 (or high school equivalent).
Core: MATH

MATH 195 Calculus II (4 SH)
Topics include techniques and applications of integration of single-variable functions, infinite sequences and series, conics, parametric equations, and an introduction to vectors. A graphing calculator is required. Prerequisite: Grade of C- or higher in MATH 185, or permission of instructor.
Core: MATH

MATH 284 Multivariate Calculus (2 SH)
Differentiation and integration of multivariate functions. Prerequisite: Grade of C- or better in MATH 195, or permission of instructor. (Fall 2020)
Core: MATH
Offered in alternate years

MATH 286 Vector Calculus (2 SH)
Vector-valued functions, line integrals, Green's Theorem, surface integrals, Divergence Theorem, Stokes Theorem. Offered every other fall. Prerequisite: Grade of C- or better in MATH 284, or permission of instructor. (Fall 2020)
Core: MATH
Offered in alternate years

MATH 310 Differential Equations (3 SH)
A study of the use of differential equations - that is, equations involving both functions and their derivatives - in the construction of mathematical models to address real-world problems. Students will be taught analytical, numerical, and graphical techniques for formulating, solving, and interpreting ordinary differential equations of first and higher-order. The emphasis will be on applications to engineering and the physical sciences. Prerequisite: MATH 195. (Fall 2020)
Core: MATH
Offered in alternate years

MATH 330-335 Topics in Mathematics (2 SH)
The content of this course is determined by the special interest of the faculty and students. Courses taught in the past include Number Theory, Coding Theory, Math Research, Math Modeling, Advanced Geometry, History of Mathematics, and Computability. Prerequisite: Math 170 and permission of the instructor.
Core: MATH

MATH 350 Linear Algebra (3 SH)
Systems of linear equations, linear transformations and matrices, vectors and vector spaces, linear independence, determinants, eigenvalues and eigenvectors, discrete dynamical systems, and inner products. Pre- or corequisites: MATH 170 and MATH 195 or permission of instructor. (Fall 2021)
Core: MATH
Offered in alternate years

MATH 364 Geometry (2 SH)
Essentials of Euclidean geometry, geometric transformations, and non-Euclidean geometry. (Fall 2020)
Core: MATH, WI
MATH 400 Statistical Methods (3 SH)
This is an introduction into the study of statistics. The goal of the class is to expose the student to basic statistical ideas and concepts. The emphasis of the class is on statistical logic, recognition of basic statistical methods, and evaluation of statistical research. There will be a minimum of mathematical theory and computation.

MATH 450 Introduction to Analysis (3 SH)
A critical study of the calculus. Topics include real numbers, sequences, limits, continuity, and differentiation and integration. Prerequisites: MATH 170 and MATH 195. (Spring 2021)
Core: MATH

MATH 460 Abstract Algebra (3 SH)
A proof-based study of the properties of groups, rings (including polynomial theory), and fields. The course also builds on number theory encountered in MATH 170. Prerequisite: MATH 350. (Spring 2022)
Core: MATH

MATH 470 Mathematical Probability (3 SH)
A study of probability, random variables, distribution and density functions, and the theory behind the statistical techniques used in STAT 220. Prerequisites: MATH 170, STAT 220, and MATH 284. (Spring 2021)
Core: MATH

MATH 499 Independent Study (1-3 SH)
Individual study in an advanced topic in mathematics. Requirements normally include the preparation of a research paper to be presented at a departmental seminar. Open to juniors and seniors. Prerequisite: faculty approval.

MKTG 301 Principles of Marketing (3 SH)
An introduction to marketing. Topics include market creation, product development, channels of distribution, consumer behavior, pricing, advertising, sales and marketing research. Aspects of international marketing and service marketing are included.

MKTG 311 Marketing Research (3 SH)
Examines a scientific approach to confirmatory and exploratory research and its application to business. Topics include research design, secondary and primary data collection, measurement and scaling concepts, survey techniques, sampling procedures, and data analysis using both descriptive and inferential statistics. Prerequisites: grade of C (not C-) or better in STAT 120 and CIS 211.

MKTG 321 Consumer Behavior (3 SH)
A comprehensive study of behavioral models and concepts designed to help understand, evaluate, and predict consumer behavior. Deepens a student's knowledge about consumer psychology and applies the knowledge from the perspective of a marketing manager. Stresses analytical thinking about consumer psychology and prediction of how marketing tactics may influence demand for products and services. Prerequisite MKTG 301. (Fall 2021)

MKTG 330 Sales/E-Commerce (3 SH)
This course explores the dynamic realities and implications of sales and electronic commerce (e-commerce) from a marketer's perspective. Students learn a wide range of electronic commerce issues and platforms for marketers as a foundation for continuous and emerging learning in the dynamic e-commerce environment. Prerequisite MKTG 301. (Spring 2021)
MKTG 410 Strategic Marketing Management (3 SH)
This course takes a broad leadership view of the principles and practices of marketing. Topics include marketing structure, channels of distribution, consumer behavior, pricing, advertising, industrial marketing, telemarketing and marketing research. Aspects of international marketing and service marketing are included. Consumer behavior topics include psychological, sociological and anthropological variables that influence consumer motivation and actions. Prerequisite: MKTG 301. (OLS 610)
Core: WI

MKTG 481 Marketing Internship (1-3 SH)
Work experience designed to integrate practice and theory, to give marketing majors insight into current policies, procedure, and problems in all types of organizations. Frequent consultation with and written reports to the faculty advisor guide the student's experience. Travel and personal expenses are the student's responsibility. Can be taken during the summer. Grading is on a Pass/Fail basis. This is highly recommended for marketing majors. Prerequisite: Admission to the department, junior or senior standing, and a department GPA of at least 2.7. The internship director must approve the internship before it commences.
Core: CL

MUED 121 Voice Proficiency Class (1 SH)
An overview of the singing process and instruction in the basic vocal skills necessary to meet the proficiency requirement for music education students. Please see MUPS 121 Class Voice for non-music majors.

MUED 131 Class Piano I (1 SH)
This is a beginner level course designed to give students a foundation in learning to play the piano and basic musicianship. During this course, students will learn to play pieces at the piano, learn basic elements of music theory and keyboard skills, and begin to develop a critical ear for nuance through listening to piano performances. This course is open to both music majors and non-music majors. For music majors, this course provides instruction necessary to meet piano proficiency requirements.
Core: CA

MUED 132 Class Piano II (1 SH)
This course builds upon skills developed in Class Piano I. Students will learn more advanced pieces, continue to refine keyboard skills, and further develop listening ability. This course is open to both music majors and non-music majors. For music majors, the final exam of this course will also serve as the piano proficiency exam. Permission of instructor is required for students who have not previously taken Class Piano I.
Core: CA

MUED 212 The Child and Adolescent Voice (2 SH)
This course examines the characteristics of the child voice, methods of working with children in elementary general music class and choral settings and the changes that occur to the voice when students reach adolescence. Other topics addressed are: how to select appropriate music for elementary, middle and high school choral groups and how to work with the changing male voice.
Offered alternate years

MUED 223 Instrumental Methods: Brasses (2 SH)
The Instrumental Methods courses offer class instruction designed to acquaint students with all the members of each family of instruments. Examination of current pedagogical materials is included.
Offered alternate years

MUED 224 Instrumental Methods: Percussion (1 SH)
The Instrumental Methods courses offer class instruction designed to acquaint students with all the members of each family of instruments. Examination of current pedagogical materials is included.
Offered alternate years

MUED 225 Instrumental Methods: Strings (2 SH)
The Instrumental Methods courses offer class instruction designed to acquaint students with all the members of each family of instruments. Examination of current pedagogical materials is included.
Offered alternate years

MUED 226 Instrumental Methods: Woodwinds (2 SH)
The Instrumental Methods courses offer class instruction designed to acquaint students with all the members of each family of instruments. Examination of current pedagogical materials is included.

Offered alternate years

MUED 341 Elementary School Music (2-3 SH)
A study of the methods, materials, philosophy and objectives in the elementary school with an emphasis on child development through music. Students will experience music and musical activities suitable for children from Pre-K through grade 6 with an emphasis on appropriate motivational and teaching methods. Topics covered may include: the role of music in society and in the schools; music fundamentals; sequential and discipline based music curricula; teaching strategies; integration of music throughout the school curriculum; evaluation strategies; writing lesson plans; planning performances. Special emphasis is given to Orff and Kodaly approaches, the needs of diverse populations and the use of technology in the music classroom. Students will observe public school music teachers as part of the course and participate in a 20 hour practicum. Admission to Teacher Education may be a prerequisite. Additional fee. A two-credit option without a practicum is available for students who are not pursuing Music Education.
Core: CA, CL

Offered alternate years

MUED 342 Secondary School Music (3 SH)
A study of methods and materials designed to prepare students to teach in middle and high school music programs. Students will observe school music teachers as part of the course and participate in a 20 hour practicum. Special emphasis is given to the maturing adolescent voice, performing ensembles, and teaching global music. Admission to Teacher Education may be a prerequisite. Additional fee.
Core: CA, CL

Offered alternate years

MUED 353 Instructional Module (1-2 SH)
In consultation with the music education advisor, each student will select an area for concentrated study.

MUED 412 Vocal Pedagogy (2 SH)
The pedagogy courses are required for performance majors in their respective area of concentration. The courses include study of pedagogical techniques in voice, piano and strings with practical application through lesson observation and supervised teaching experiences.
Core: CL

Offered alternate years

MUED 413 Piano Pedagogy (2 SH)
The pedagogy courses are required for performance majors in their respective area of concentration. The courses include study of pedagogical techniques in voice, piano and strings with practical application through lesson observation and supervised teaching experiences.
Core: CL

Offered alternate years

MUED 415 String Pedagogy (2 SH)
The pedagogy courses are required for performance majors in their respective area of concentration. The courses include study of pedagogical techniques in voice, piano and strings with practical application through lesson observation and supervised teaching experiences.

Offered alternate years

MUES 310 The University Choir (0-1 SH)
A large choral ensemble representing a wide variety of academic majors. The choir will sing primarily sacred repertoire from all periods of music history. Membership is open to any Eastern Mennonite University student by audition. Alumni, faculty, staff, and community members are invited to join the choir during the fall semester to participate in the annual Fall Gala Concert or Christmas service.
Core: CA

MUES 321 Chamber Singers (0-1 SH)
A select choir that studies and performs choral literature of various periods, styles and cultures. Performances occur both on and off campus; some touring is done each year. Members of Chamber Singers are also members of The University Choir.
Core: CA
MUES 331 Chamber Orchestra (0-1 SH)
An orchestra open to students, faculty and community players interested in playing symphonic music. Several concerts are scheduled each year, occasionally in collaboration with soloists and other student ensembles. Audition required for wind players.
Core: CA

MUES 332 Wind Ensemble (0-1 SH)
A large ensemble open to students, faculty and community players. Concerts are scheduled each semester, occasionally in collaboration with soloists and other student ensembles. Audition may be required.
Core: CA

MUES 333 Chamber Ensemble (0-1 SH)
Small ensembles of voices and/or instruments organized according to the interests and abilities of students, and coached by various EMU music faculty. Additional fee.
Core: CA, CL

MUES 341 EMU Jazz (0-1 SH)
The EMU Jazz Ensemble provides opportunities for students interested in jazz to learn musical skills and techniques associated with jazz music performance including different styles and improvising. Emphasis is placed on performance of jazz in the big band style. The Jazz Ensemble is open by audition. Preferences will be given to students of saxophone, trumpet, trombone, keyboard, drum set, bass, and guitar, but all students are welcome. The ensemble performs on campus and at local venues.
Core: CA

MUES 341 EMU Pep Band (0-1 SH)
Want to play fun instrumental arrangements of popular music, feel the excitement of bringing school spirit to athletic events, and earn general elective credit all at the same time? Join the EMU Pep Band! The pep band will play 4-8 games and events over the course of the EMU Royals basketball season (November-February). The band’s rehearsal schedule will consist of a limited run of 5-6 rehearsals before the basketball season. Rehearsal times will be arranged by the director in accordance with registered students’ schedules. Students participating in pep band will receive 1SH of general credit for the academic year. In order to participate in pep band for the season, students must also participate in 1 semester (fall or spring) of either Wind Ensemble, EMU Jazz, or Chamber orchestra during the academic year.

MUPS 121 Class Voice (1 SH)
Beginning vocal instruction in a small group setting. Excellent opportunity to learn basic singing skills. Open to all students and is a prerequisite for private studies if the student has had no previous private voice study. Additional fee.
Core: CA

MUPS 211 Composition (1-2 SH)
Credit is available for private study in the areas listed below. A semester of private study includes 13 weeks of lessons. Registration for 1 SH offers 40 minute lessons; registration for 2 SH offers 60 minutes of instruction per week. Instructor's permission to enroll is required. The 200 or 300 level is determined by the instructor and is based on level of advancement. Lessons for 2 SH are available only to, and required of, music majors with a performance concentration after their formal admission to the program as performance majors. Approval must be granted from music department chair for any exceptions. Private voice students are required to hire an accompanist for weekly lessons and recitals. Additional fee.
Core: CA

MUPS 290 Sophomore Recital (0 SH)
Sophomore recitals are arranged with the approval of the instructor.

MUPS 390 Junior Recital (1 SH)
Preparation and presentation of a public recital containing a minimum of one half-hour of music. The junior recital is required for the performance concentration in music.

MUPS 490 Senior Recital: Project (1-3 SH)
A solo performance containing a minimum of one half hour of music for the music education teaching endorsement or one hour of music for the music performance concentration to be presented during the final year of the student's study. Preparation includes research, analysis, related public performance and presentation, and critique. All details are to be worked out under the supervision of the instructor. Permission for recital performance is subject to the approval of the music faculty.
MUPS 491 Senior Project (3 SH)
A project, broad in scope, unifying the various interests of the interdisciplinary studies student. This is a public presentation given during the senior year demonstrating how the student's different areas of study connect and relate to each other. The project must be approved and overseen by the student's music advisor. It is likely there will also be advising and input from professors in disciplines other than music. The project will entail an aural as well as a written component, the latter to be contained in the student's portfolio.

MUPS 499 Independent Study (1 SH)

MUPS ### Private Lessons (1-2 SH)
Credit is available for private study in the areas listed below. A semester of private study includes 13 weeks of lessons. Registration for 1 SH offers 40 minute lessons; registration for 2 SH offers 60 minutes of instruction per week. Instructor's permission to enroll is required. The 200 or 300 level is determined by the instructor and is based on level of advancement. Lessons for 2 SH are available only to, and required of, music majors with a performance concentration after their formal admission to the program as performance majors. Approval must be granted from music department chair for any exceptions. Private voice students are required to hire an accompanist for weekly lessons and recitals. Additional fee.

- 201, 301 Percussion - 1-2
- 202 Jazz Improvisation - 1
- 211 Composition - 1-2
- 221, 321 Voice - 1-2
- 231, 331 Piano - 1-2
- 241, 341 Organ - 1-2
- 251, 351 Violin - 1-2
- 252, 352 Viola - 1-2
- 253, 353 Cello - 1-2
- 254, 354 String Bass - 1-2
- 255, 355 Banjo - 1-2
- 256, 356 Guitar - 1-2
- 261, 361 Flute - 1-2
- 262, 362 Clarinet - 1-2
- 263, 363 Oboe - 1-2
- 264, 364 Saxophone - 1-2
- 265, 365 Bassoon - 1-2
- 271, 371 Trumpet - 1-2
- 272, 372 Horn - 1-2
- 273, 373 Trombone - 1-2
- 274, 374 Tuba - 1-2

Core: CA

NRSL 320 Transitions in Professional Nursing Practice (3 SH)
This course is designed to support a smooth transition for new to practice registered nurses who are employed in their initial professional positions. Successful transition into the role of a professional nurse will be fostered through faculty and peer coaching and support. An overarching aim of this Nurse Residency is professional socialization while fostering stress management, problem-solving, creative thinking, and durability in the new professional position.

Offered through Lancaster

NRSL 325 Art and Science of Effective Communication (3 SH)
This course is designed to enhance the written, oral and interpersonal communication ability of students. With an emphasis on academic integrity, the course will foster writing skills using American Psychological Association formatting. Other content will address information and media literacy, content creation, and the ethics inherent in their use. Communication skills will be enhanced through discussion of social media, crucial conversations, mediation, and therapeutic communication.

Offered through Lancaster

NRSL 341 Professional Nurse (4 SH)
This course presents the knowledge, skills, and abilities required for current professional nursing practice. Classroom activities focus on library usage skills, an introduction to nursing research, concepts of professional nursing, communication skills, nursing and crisis theories, the history of nursing, and spirituality. A paper is written in which professional nursing concepts are integrated into an individual philosophy of nursing.

Offered through Lancaster

NRSL 345 Health Assessment (3 SH)
This course provides students with knowledge and skills in history taking and physical examination of healthy individuals. At the end of the course, each student will be required to do a mastery demonstration of a head-to-toe assessment on a person of choice. The information and skills learned are required of a baccalaureate curriculum.

**NRSL 350 Health Care Policy (4 SH)**
This course focuses on contemporary health care issues and their impact on current policy. An open systems model and change theory is used to explore the US healthcare system, health care organizations, health care policy, payment systems and the role of nurses within this system. Possibilities for health care reform and alternate systems are discussed. The effect of behaviors, attitudes, values and perceptions of participants in the system is examined.

**Offered through Lancaster**

**NRSL 405 Evidence-Based Practice for Nursing (4 SH)**
This course guides the student through the research process and teaches the art of becoming a critical consumer of research. Both qualitative and quantitative methods are examined. Students critically read and critique nursing research.

**Offered through Lancaster**

**NRSL 410 Community Health (4 SH)**
This course focuses on nursing with the community as the client. Theories of community nursing are examined and applied in community agencies. Epidemiology, communicable diseases, and crisis theory are considered. Students do a community assessment and project with a community organization.

**Offered through Lancaster**

**NRSL 420 Principles of Nursing Management and Leadership (3 SH)**
This course presents motivational theory and its application to individual and group functioning. Leadership styles and governance models are examined. Legal issues are discussed. The effect of organizational change on nursing delivery systems is evaluated. The concepts of power, oppression, advocacy, delegation, stress, and change are addressed.

**Offered through Lancaster**

**NRSL 430 Evidence-Based Practice Capstone (2 SH)**
In this course the nurse explores nursing research and applies it to a clinical problem. The course consists of writing, implementing, and orally presenting it as a capstone presentation to the instructor and learning group.

**Offered through Lancaster**

**NRSL 461 Family Health (4 SH)**
This course focuses on nursing with the family as the client. Theories of family nursing are examined and applied with the family experience. Family development and crisis theory are considered. Students home visits with a family and do a family health assessment.

**Offered through Lancaster**

**NURS 301 Holistic Health Inquiry (3 SH)**
Includes interviewing, documenting, understanding normal findings on physical examination and geriatric considerations, and assessment of psychosocial and spiritual needs. Introduces beginning professional and therapeutic communication skills with clients and professional teams, including managing conflict. Laboratory and community settings are used for practice and mastery experiences.

**NURS 302 Pathophysiology and Pharmacology for Nursing (4 SH)**
Addresses the pathophysiology and pharmacological treatment of the most common diseases encountered in the adult population. The course begins with basic principles of pharmacology, and then is organized by body system or major disease group classification: fluid and electrolyte balance, neurological, heart and vascular, endocrine, immune/infection, musculoskeletal, respiratory, gastrointestinal, and cellular/cancer.

**NURS 303 Foundations of Professional Nursing (4 SH)**
Introduces the fundamental concepts of nursing including actions basic to nursing care, promoting healthy physiologic and psychosocial responses, and aging. Processes key to functioning effectively as a professional nurse are included: the nursing process, clinical decision making, and teaching and learning. Covers professional roles and issues such as the nurse as team member, legal and ethical concerns, documentation, priority setting, and safety.

**NURS 304 Fundamentals Practicum (3 SH)**
Skill acquisition in the learning laboratory through simulation, skill demonstrations (e.g. urinary indwelling catheter insertion, wound care, vital signs and glucometer). Clinical experiences take place in a nursing home, acute care setting, schools, and other community settings. Corequisites: NURS 301 Holistic Health Inquiry and NURS 303 Foundations of Professional Nursing

NURS 310 Conceptual Framework of Nursing (2 SH)
Introduces the concepts basic to nursing practice: persons, health, environment and nursing. Incorporating spirituality into nursing practice will be emphasized. Taken during the sophomore year or with Level 1.
Core: WI

NURS 311 Conceptual Framework Bridge Course (3 SH)
Provides an overview of the conceptual framework utilized in the EMU nursing department and reviews certain nursing process skills that include decision making, teaching, research and process recordings. This course is taken by LPN and RN students in the day program.
Core: WI

NURS 320 Adult Health Practicum I (3 SH)
Clinical experiences are in medical surgical settings where the student applies the nursing process in caring for 1-2 clients. (Clinical experience: 11 days)

NURS 322 Nursing Care of the Adult I (3 SH)
Addresses the needs of clients with problems involving endocrine, regulation, gastrointestinal, fluid balance and immune systems. Clinical experience in hemodialysis. Prerequisite: Completion of Level 1

NURS 323 Psychosocial Nursing (3 SH)
Gives an overview of psychosocial nursing and addresses nursing care of clients with psychosocial illnesses. Application occurs in a state mental hospital. (Clinical experience: 6 days in a psychiatric hospital).

NURS 325 Nursing Care of Children (3 SH)
Focuses on the nursing care of children in a developmental setting, rehabilitation setting and an acute hospital setting. Explores the transitional and situational crises this brings to the family. (Clinical experience: 6.5 days)

NURS 326 Nursing and the Beginning Family (3 SH)
Focuses on the family during the childbearing cycle. Clinical application occurs in a mother- baby hospital unit, childbirth classes and prenatal settings. (Clinical experience: 4 days)

NURS 391 Faith Community Nursing (3 SH)
Faith Community Nurses assist the members of their faith community to maintain and/or regain wholeness in body, mind, and spirit. The course explores the personal and professional dimensions of spirituality and the process of developing a health and wellness ministry within a community of faith.

NURS 420 Adult Health Practicum II (3 SH)
Clinical experiences are in medical surgical settings where the student masters complete care for 2-3 clients. (Clinical experience: 10 days). Prerequisite: NURS 320.

NURS 422 Nursing Care of the Adult II (3 SH)
Addresses the needs of clients with problems involving the cardiovascular, respiratory, neurological and sensory systems. Prerequisite: Completion of Level 1

NURS 426 Nursing and Family in Community (3 SH)
Focuses on nursing with the family as a unit in the community system from conception to late adulthood. Clinical application occurs in home visits with families. Prerequisite: NURS 314.
Core: CL
NURS 427 Professional Issues in Nursing (1 SH)
This seminar course addresses current issues in nursing from the standpoint of ethics, economics, policy, research, and legal considerations. Students identify an area of health concern and use research and evidence-based resources to develop and deliver an oral presentation.

NURS 429 Leadership Practicum (3 SH)
This course includes practical clinical experiences at the leadership level in acute care, medical-surgical settings. Concepts of delegation, time-management, and prioritization are emphasized. Prerequisite: NURS 322 & 422

NURS 432 Community Health (3 SH)
Focuses on community health nursing with clinical application to individuals, families and communities. Change theory, epidemiology, communicable diseases and health care systems are considered. Prevention in populations is a special emphasis in this course. (Clinical experience: 9 days plus community project.) Prerequisite: NURS 426.
Core: CL

NURS 433 Evidence Based Practice for Nursing (2 SH)
Guides the student in understanding the research process and becoming a critical consumer of research. Students apply research findings to their capstone presentation.

NURS 436 Population Health Colloquium (2 SH)
This course draws together principles of community health and leadership in order to prepare students to be active participants within the communities and agencies in which they will work. Application of course content occurs through a semester-long population-focused group project and a professional presentation that utilizes evidence-based literature.

NURS 438 Critical Care Nursing (2 SH)
Crisis theory is applied with clients and their families in the acute stages of a health-related situational crisis and in disaster situations. Clinical experiences occur in the emergency department and critical care units. (Clinical experience: 4 days). Prerequisites: NURS 319, NURS 321, NURS 420, NURS 421.

NURS 439 Transition to Practice (3 SH)
This senior seminar course covers professional issues and the role development of the professional nurse transitioning into practice. In class discussions and in writing a philosophy paper, students identify personal beliefs and ethical issues and challenges that will affect their voice as a nurse. Students present an evidence-based project and advocate for a legislative policy change. (ASD program only)

NURS 440 Transition to Practice (3 SH)
Examines professional issues and the role development of the professional nurse transitioning into practice. In class discussions and in writing a philosophy paper, students identify personal beliefs and ethical issues and challenges that will affect their voice as a nurse. Students present an evidence-based project and advocate for a legislative policy change.
Core: WI

NURS 480 Adult Health Practicum III (2 SH)
Clinical experiences are in medical surgical settings where the student masters complete care for 2-3 clients. For students on an extended schedule (clinical experience: 5 days)

PE 101 Introduction to Health, Physical Education and Recreation (3 SH)
The significance and meaning of health, physical education, recreation, leisure, play, and sport in modern society are examined. Includes the theories of play, models of sport, and the recreational and sport movement in the United States. Role and scope of health, physical education, recreation and sport programs in the community, schools, commercial, and industrial settings are examined along with an introduction to professional and career issues in the field. (RSM 101)

PE 201 Principles of Coaching (2 SH)
This course addresses issues common to all sporting experience (team management, practice organization, budgeting, facility and equipment usage, administrative relationships and scheduling). Class activities draw on life and sport experiences of students to develop principles of effective coaching at the community youth sports, middle and high school, and college levels. (Fall 2021)
Offered in alternate years
PE 203 Coaching Practicum (1 SH)
This practicum provides an on-the-job learning experience for students. A supervised placement is secured in a coaching role in a local youth sports or educational program. This course is not available for first-year students.

PE 210 Sophomore Practicum: KES (1 SH)
This individualized course provides exposure for kinesiology and exercise science minors in professional adult fitness or sports medicine settings. A volunteer position is secured in a related agency for fifty clock-hours of involvement.
Core: CL

PE 301 Adapted Physical Education (3 SH)
This is a combined study of academic course work and a 10-hour practicum experience designed to educate the student to meet the physical, motor, personal-social and learning needs of exceptional individuals, particularly those individuals with disabilities whose needs cannot be met in a mainstreamed physical education setting.
Core: CL

PE 302 Motor Learning (2 SH)
The primary intent of this course is to become familiar with the learner, the learning environment and the process of learning in the motor skill context to provide physical educators and coaches with instructional decisions.

PE 301 Adapted Physical Education (3 SH)
This course exposes students to elementary physical education history, theory, and practice and encourages them to develop appropriate teaching and management skills. This course must be taken as part of the elementary physical education professional block and includes a 60-hour practicum (also includes PEM 231 and PE 403). Corequisites or prerequisites: ED 101, 245, PE 301, and 302. Admission prerequisites: First semester of block courses: Admission to Teacher Education recommended, 2.7 cumulative GPA and the entry assessment math score required. Second semester of block courses: Admission to Teacher Education required. (Fall 2020)
Offered in alternate years

PE 401 Elementary Physical Education (3 SH)
This course provides students the opportunity to develop the appropriate teaching and management skills for the middle and secondary physical education setting. This course must be taken as part of the secondary physical education professional block and includes a 60-hour practicum (also includes ED 351 and ED 385). Course prerequisites: ED 101, 245, 275, HE 202, and 260. Admission prerequisites: First semester of block courses: Admission to Teacher Education recommended, 2.7 cumulative GPA and the entry assessment math score required. Second semester of block courses: Admission to Teacher Education required. (Fall 2021)
Offered in alternate years

PE 403 Assessment of Physical Activity (1 SH)
This course is designed to prepare students to effectively assess student learning in physical activity settings. Course content includes: basic theoretical and practical knowledge in measurement and evaluation techniques, developmentally appropriate assessment strategies and providing feedback in physical activity programs. Corequisites or prerequisites: PE 401 and PEM 231 (Fall 2020)
Offered in alternate years

PE 414 Biomechanics of Sport (2 SH)
Biomechanics examines quantitative and qualitative descriptions of movement through task and video analysis of human movement. This segment of the course applies fundamental kinesiology and biomechanical principles to the human musculoskeletal system. Applications for physical educators and coaches are a primary focus. Prerequisites: BIOL 112 or BIOL 437, BIOL 122 or BIOL 447, PEM 143. Non-majors and minors by instructor permission only. (Fall 2019)
Offered in alternate years

PE 415 Exercise Physiology of Sport (3 SH)
This course focuses on the discipline of exercise physiology and explores the effects of physical activity on physiological processes and the effects of various physiological states on performance. This segment of the course explores the acute responses and chronic adaptations of the body to the stresses of exercise. Applications for physical educators and coaches are a primary focus. Prerequisites: BIOL 112 or BIOL 437, BIOL 122 or BIOL 447, PEM 143. Non-majors and minors by instructor permission only. (Spring 2021)
Core: WI
PE 416 Fitness Administration and Assessment (2 SH)
This class promotes familiarity and proficiency with methods and instrumentation in administering and assessing individual fitness and establishing a base for developing exercise prescriptions and other lifestyle alternatives to improve health and fitness. This class includes advanced study in administration of prescribing and assessing of the acute and chronic adaptations of the body to the stresses and health benefits of exercise students encounter. An application of theories and practices that will prepare them for an accredited health and fitness certification. Prerequisites: BIOL 112 or BIOL 437, BIOL 122 or BIOL 447, PEM 143, PE 414, PE 415.

PEG 110 Aerobic Cross-Training (1 SH)
This course is designed to provide opportunities to improve cardiovascular endurance through a planned program of various aerobic activities, knowledge of benefits of cross training, and the enjoyment of participation. An additional fee will be charged.

PEG 111 Backcountry Travel (1 SH)
The activity of backpacking will provide for knowledge acquisition, skill development, fitness improvement, and the enjoyment of participation. Students will also master specific campcraft and outdoor living skills for recreational camping, camp counseling, and school outdoor education situations. An additional fee will be charged.

PEG 112 Bowling (1 SH)
This course is designed to provide opportunities for skills improvement, knowledge of bowling, fitness improvement, and enjoyment of participation. An additional fee will be charged.

PEG 113 Canoeing (1 SH)
The activity of canoeing will provide for knowledge acquisition, skill development, fitness improvement, and the enjoyment of participation. An additional fee will be charged.

PEG 114 Cycling (1 SH)
This course is designed to provide opportunities for cycling skills improvement, knowledge of the commuter cycling movement, to learn and practice basic bike maintenance skills, fitness improvement, and enjoyment of participation.

PEG 115 Fitness, Conditioning, and Weight Training (1 SH)
This course is designed to provide opportunities for skills improvement, knowledge of the activity, fitness improvement and the enjoyment of participation. The course experience is divided between cardiorespiratory endurance and strength training aspects of physical fitness. Registration priority is given to students whose programs require this course.

PEG 116 Golf (1 SH)
This course is designed to provide beginning golf instruction and skill improvement, knowledge of golf rules and etiquette, fitness improvement, and enjoyment of participation. Varsity golfers by permission of instructor only. An additional fee will be charged.

PEG 117 Jogging/Walking (1 SH)
This course is designed to provide an introduction to the understanding of the benefits of engaging in regular physical activity. Students will participate in activities that foster the development of cardiovascular endurance, cardiovascular fitness and flexibility through a planned jogging/walking program. Varsity athletes by permission of instructor only.

PEG 118 Lifeguarding (1 SH)
Upon successful completion of the requirements of the course, students will obtain an American Red Cross Lifeguarding, CPR for the Professional Rescuer, and AED Essentials certification. Prerequisites: Students should be comfortable and competent in their swimming ability. A skill pre-assessment is required. An additional fee will be charged.

PEG 119 Cave Exploration (1 SH)
The activity of cave exploration will provide for knowledge acquisition, skill development, fitness improvement, and the enjoyment of participation. Students will be exposed to caving as a personal recreational pursuit, particularly indigenous to Virginia’s Shenandoah Valley and nearby West Virginia. An additional fee will be charged.

PEG 120 Table Tennis/Net Games (1 SH)
This course is designed to provide opportunities for personal skill development, development of net games strategies, and improvement personal fitness through your participation in the following net games: pickleball, badminton, volleyball, table tennis, spikeball and tennis.

PEG 121 Skiing (1 SH)
This course is designed to provide opportunities for skills improvement, knowledge of skiing, fitness improvement, and enjoyment of participation. An additional fee will be charged.

PEG 122 Snowboarding (1 SH)
This course is designed to provide opportunities for skills improvement, knowledge of snowboarding, fitness improvement, and enjoyment of participation. An additional fee will be charged.

PEG 123 Soccer (1 SH)
This course is designed to provide opportunities for skills improvement, knowledge of soccer, fitness improvement, and enjoyment of participation.

PEG 124 Strength Training (1 SH)
The course focuses on these various approaches for developing muscular strength and muscular endurance (isotonics, isometrics, isokinetics, plyometrics, circuit training) and the physiological responses and safety considerations of each.

PEG 125 Beginning Swimming (1 SH)
This course is designed to provide opportunity for skills improvement of basic stroke mechanics, breath control, increasing knowledge of swimming safety, developing individual comfortability in the water, fitness improvement, and the enjoyment of participation in swimming as a lifetime activity. Prerequisites: Little experience in swimming is required for this course, though the student should not fear the water. An additional fee will be charged.

PEG 126 Intermediate Swimming (1 SH)
This course is designed to provide opportunity for skills improvement of stroke mechanics, increasing knowledge of swimming, developing individual workouts for fitness improvement, and the enjoyment of participation in swimming as a lifetime sport. Prerequisites: Some prior knowledge of freestyle, backstroke, and breaststroke is helpful for the student. A skill pre-assessment is required. An additional fee will be charged.

PEG 127 Technical Rock Climbing (1 SH)
Students successfully completing the course will be competent to purchase equipment intelligently, top-rope climb and rappel independently, and second lead climbers. An additional fee will be charged.

PEG 128 Beginning Tennis/Badminton (1 SH)
This course is designed to provide opportunities for skills improvement, knowledge of tennis and badminton, fitness improvement, and enjoyment of participation.

PEG 129 Intermediate Tennis (1 SH)
This course is designed to provide opportunities for advanced skills development, knowledge of the activity, fitness improvement and enjoyment of playing intermediate tennis, while also gaining an understanding of higher level of play. Prerequisite: PEG 128 or PEG 120 or permission of instructor. A skill pre-assessment is required.

PEG 130 Beginning Volleyball (1 SH)
This course is designed to provide opportunities for skills development, knowledge of the activity, fitness improvement and enjoyment of playing volleyball, while also gaining an understanding of higher level of play.
PEG 132 Introduction to Scuba (1 SH)
This course is designed to provide opportunity for exploration of the underwater world, by increasing knowledge of the underwater world as well as the comfort level that is required and the enjoyment of participation. The students will also, upon successful completion of the requirements of the course and the four Open Water training dives, obtain a PADI Open Water Diver Certification. A skill pre-assessment is required. An additional fee will be charged.

PEM 141 Teaching Individual Sports (2 SH)
Students will learn basic movement skills, learn to analyze skills and plan developmentally-appropriate learning and assessment. The course is based upon the Teaching Games for Understanding (TGFU) approach. Students will develop tactical awareness and skill acquisition of the following individual sports: pickleball, badminton, tennis, yard games, bowling, golf, and archery. (Fall 2021)
Offered in alternate years

PEM 142 Teaching Team Sports (2 SH)
Students will learn the basic movement skills, learn to analyze skills and plan developmentally-appropriate learning and assessment. The course is based upon the Teaching Based on the Teaching Games for Understanding (TGFU) approach. Students will develop tactical awareness and skill acquisition of the following team sports: soccer, team handball, basketball, lacrosse, field hockey, flag football, speedball, cricket, softball and ultimate Frisbee.
Offered in alternate years

PEM 143 Fitness, Conditioning and Strength Training (2 SH)
This course is designed for department majors and minors to learn how to apply scientifically sound concepts of exercise and fitness to activity, fitness improvement and strength training. The course will focus on all aspects of physical fitness and assessment including strength training, speed development, cardio, flexibility and program development. Registration priority is given to students whose programs require this course.

PEM 144 Experiential Education and Recreational Games (2 SH)
The outdoor setting provides unique educational opportunities as the learner interacts with the natural environment. This course prepares prospective educators and recreation leaders to design, implement and evaluate various outdoor curriculum models and teaching strategies (including recreational pursuits, teambuilding, ropes courses and other outdoor activities). It provides students the opportunity to develop expertise in the use of developmentally-appropriate recreational, cooperative, and competitive games to enhance skill development and fitness and strategies for quickly and fairly placing students/people into groups. (Fall 2020)
Offered in alternate years

PEM 145 Rhythmic Activities (1 SH)
A course designed to provide the pre-service teacher (health and physical education, early childhood and elementary education) an aesthetic and kinesthetic movement experience in a variety of basic fundamental movement situations. The course includes: creative rhythmic movement, fundamental movement patterns, folk and line dance, square dance. The course also focuses on the development of the students' artistic and creative ability through the creation of an original movement routine.
Core: CA

PEM 231 Movement Education (1 SH)
Teacher candidates will focus on skill themes and movement concepts as well as qualitative assessment skills needed to successfully teach pre-school through fifth grade physical education. The process will enable physical educators to successfully structure the development of physically literate students. This course must be taken as part of the elementary physical education professional block and includes a 80 hour practicum (also includes PE 401).
Course prerequisites: ED 101, 251, PE 301, and 302. Admission prerequisites: First semester of block courses: Admission to Teacher Education recommended, 2.7 cumulative GPA and the entry assessment math score required. Second semester of block courses: Admission to Teacher Education required. (Fall 2020)
Offered in alternate years

PEV 151-164 Varsity Sports
Students may earn one semester hour of elective credit per season for participation on a varsity athletics team or for serving as an athletic trainer. These credits receive pass-fail grading. Requirements include starting and finishing the season on the team, being an active team member in good standing, and completing an acceptable reflection paper on the selected topic. Students whose course load already includes 18 SH will be required to pay an overload fee to receive PEV credit.
- 151 Varsity Baseball - 1
- 152 Varsity Basketball (Men) - 1
- 153 Varsity Basketball (Women) - 1
- 154 Varsity Cross Country - 1
- 155 Varsity Field Hockey - 1
- 156 Varsity Soccer (Men) - 1
- 157 Varsity Soccer (Women) - 1
- 158 Varsity Softball - 1
PHIL 201 Introduction to Philosophy (3 SH)
This course introduces students to key figures in the Western philosophical tradition and to the major questions with which those figures wrestled. Students read a variety of classic philosophical texts paying particular attention to problems of knowledge and skepticism, mind and world, ethics and politics.
Core: CW

PHIL 212 Ways of Knowing (3 SH)
Students engage watershed questions of human knowing such as: how do we know? When can we know that someone is wrong regarding their knowledge claims? What is truth? Just how important is truth? Issues of perspective, context, social construction of knowledge and gender and cultural difference will be explored.
Core: CW

PHIL 334 Moral Philosophy (3 SH)
Students encounter classical conceptions of ethics and morality articulated by Aristotle, Kant, Mill and the traditions of ethical virtue. The course will explore the relative importance of reason, character and good consequences in determining the right and the good. Prerequisite: PHIL 201 or permission of the instructor.
Core: CW

PHIL 412 Philosophy of Religion (3 SH)
This course examines issues that arise from a tradition of philosophical reflection on the language and truth claims of religion. Specific readings vary from year to year but will most often include theological and postcolonial responses to the phenomenon of the secular.
Core: CW

PHYS 252 University Physics I Lecture (3 SH)
The first semester of a calculus-based introductory physics sequence that aims to develop understanding of basic physical principles, problem-solving ability, and fluency with mathematical formulas. Topics include conservation laws, Newtonian mechanics, oscillatory motion, and relativity. Must be taken concurrently with PHYS 253. Prerequisite: MATH 154 or MATH 185.
Core: NS

PHYS 253 University Physics I Lab (1 SH)
Must be taken concurrently with PHYS 252.
Core: NS

PHYS 262 University Physics II Lecture (3 SH)
The second semester of a calculus-based introductory physics sequence. Topics include electromagnetism, optics, quantum mechanics, and thermodynamics. Must be taken concurrently with PHYS 263. Prerequisite: PHYS 252.

PHYS 263 University Physics II Lab (1 SH)
Must be taken concurrently with PHYS 262.

PHYS 405 Thermodynamics (3 SH)
A computationally intensive foundational study of chemical thermodynamics and kinetics. Topics include gases, enthalpy, entropy, Gibbs free energy, chemical and phase equilibria, statistical thermodynamics, electrochemistry and chemical kinetics. Prerequisite: MATH 195 or instructor permission.
(CHEM 405) (Fall 2020)
Offered in alternate years
PHYS 406 Quantum Mechanics (3 SH)
A mathematically intensive study of basic QM as related to atomic and molecular structures. Topics include the Schrödinger equation, the uncertainty principle, bound and scattering states, the hydrogen atom, and spectroscopy. Prerequisite: MATH 195 or instructor permission. (CHEM 406) (Fall 2021) Offered in alternate years

PMBA 431 Financial Accounting (2 SH)
Introduces accounting principles and practices and interpretation of financial statements. No background in accounting is assumed. The course includes a description and derivation of financial statements prepared by accountants and a discussion of a conceptual framework which provides rationale for accounting practices. The course also covers corporation accounting and examines the use of accounting information in the planning and controlling of the firm’s operations. (Online prerequisite)

PMBA 441 Introduction to Finance (3 SH)
Provides an introduction to the theory and practice of business finance. The course emphasizes the problems faced by financial managers. Topics include the role of financial markets, interest rates, time value of money, valuation of securities, capital budgeting and working capital management. (Online prerequisite)

POL 101 Introduction to Politics (3 SH)
An introduction to the study of politics where students will become familiar with the government policies and institutional structures that influence the major political issues of the time. The course will also examine the structure and activities of the most typical kinds of political systems and the way individuals, groups, and institutions both conflict and work together in each.
Offered through Lancaster

POL 111 Comparative Politics (2 SH)
This course provides a review of the basic framework and foundational concepts of politics, exploring key questions in contemporary comparative politics. The course will focus on several questions that have long been central to the study of comparative governments: (1) why democracy emerges and survives in some countries but not in others; (2) how political stability affects economic development; (3) how political institutions (constitutional, electoral, administrative, and party systems) vary across countries and why these variations matter; and (4) how contentious politics often turn violent and take the forms of civil war.
Core: SB

POL 112 American Politics (2 SH)
This course provides an introduction to the study of American politics, covering a range of substantive topics related to the American political system. Topics covered in this course are as follows: the cultural and constitutional foundations of American politics; its institutional structures, including the Congress and the presidency; the political behavior of elites as well as ordinary American citizens; and contemporary political debates over issues of racism, immigration, economic inequality, and partisan polarization.
Core: SB

POL 113 International Relations (2 SH)
This course provides an introduction to the study of international relations. It covers the key approaches to and issues in the field, including the causes of war and peace, nuclear proliferation, trade, finance, globalization, international law, human rights, and the environment.
Core: CC, SB

POL 220 U.S. Foreign Policy (3 SH)
This course examines the history and contemporary issues of American foreign policy. As the most powerful country in the international system, the United States has been uniquely positioned to shape and influence international politics since the end of World War II. Has it been a peacemaker or a warmonger? The course asks what constraints, dilemmas, risks, and opportunities affected major foreign policy decisions in U.S. history and evaluates the efficacy of America’s foreign policy instruments such as international institutions, alliances, and military power in crises and conflicts. This course also aims to expose students to contemporary foreign policy issues. (Spring 2022) Offered in alternate years

POL 230 International Norms and Institutions (3 SH)
This course provides an overview of the history, objectives, impacts, and effectiveness of norms and institutions in international politics. It examines (1) how international norms and institutions evolve; (2) why and how governments and civil society actors promote international norms and institutions; (3) why states join institutions and comply with international rules and regulations; (4) how international norms affect state behavior; and (5) what determines the effectiveness of international norms and laws. Along with theoretical and historical reviews, students will also study empirical topics such as the United
Nations, international humanitarian law, transnational advocacy groups and human rights regimes, international trade and finance organizations, and environmental institutions. (Spring 2021)

Offered in alternate years

**POL 250 Law, Justice, and the Local Context (3 SH)**

This course seeks to give context to the rule of law and the pursuit of justice in Harrisonburg, Rockingham County and the Commonwealth of Virginia. Taking a survey approach focused on juvenile justice, students will encounter theories and philosophies of law, justice, youth development child advocacy and family systems relating to 'dual status youth' in child welfare (protective justice) and criminal justice. The course highlights dynamics of immigration status, race, identity, class and power, across a range of issues related to juveniles and the community at large in police work, the court system, detention and practices of restorative justice. The class format will engage diverse speakers, on-site visits to state agencies and non-governmental groups, dynamic readings and other resources. (Spring 2021)

Core: CL

Offered in alternate years

**POL 340-345 Topics in Political Studies (3 SH)**

This course is offered as instructors with special expertise in an area are available to offer unique or trial content.

**POL 441 Political Science Internship (1-3 SH)**

Designed for upper-level political studies minors who want to explore career options and gain practical experience in local, state or federal government work. Approval from the history department is required one semester in advance. Students take initiative in arranging their own placement. Internship can be completed in the summer. Grading is on a pass/fail basis. Students may be able to meet the requirement (but not earn credit) through documentation of a non-credit experience, upon departmental approval.

**POL 481 Pre-Law Internship (1-3 SH)**

Minors enter a semester or summer-session internship through their major. Some options would be in the immediate area, while others would tap into EMU and MCC programs in Washington, New York, and abroad. These might include paralegal work, mediation work, VORP, WCSC, SALT, or the MCC U.N. Liaison. Note: Students completing an internship/ practicum for their major (e.g. Business, PXD) can use this to satisfy the pre-law internship with approval from the history department. Grading is on a pass/fail basis. Students may be able to meet the requirement (but not earn credit) through documentation of a non-credit experience, upon departmental approval.

**PPX 371 Peace and Security in East Asia (3 SH)**

This course aims to introduce and analyze the history and international relations of East Asia, which is one of the most dynamic and consequential regions in world politics today. The first part of the course will explore historical backgrounds of the region with a focus on political, economic, and security development from the late 19th century to the post-Cold War era. The second part will examine various regional security challenges and foreign/security policies of the key countries (China, Japan, the two Koreas, and ASEAN countries), encouraging students to think whether the region is heading towards peace or conflict. The ultimate goal of this course is to enable students to produce an academic research paper on a topic of their interests, by immersing themselves in important peace and security issues in East Asia. (Spring 2022)

Core: CC, WI

Offered in alternate years

**PPX 401 Human Rights and Dignity (4 SH)**

This course introduces students to the study of human rights from a political perspective. By taking this course, students should be able to (1) think critically and analytically about human rights and dignity; (2) demonstrate knowledge of key conceptual debates, the history and evolution of the international human rights regime, and relevant cases of human rights violations; (3) develop informed positions on key issues of human rights and identify ways to prevent human rights violations at home and abroad; and (4) attain critical writing and oral skills through active class participation, weekly response essays, and a final paper. (Spring 2022)

Core: WI

Offered in alternate years

**PPX 405-409 Topics in Politics and Peace Studies (3-4 SH)**

This course is offered as instructors with special expertise in an area are available to offer unique or trial content.

**PPX 421 Genocide of the 20th Century (4 SH)**

This course examines genocides and mass atrocities in the modern world from an interdisciplinary perspective. We will look at historical and contemporary genocides— Armenia, the Holocaust, Nanjing, Cambodia, Rwanda, former Yugoslavia, Darfur, and Syria—and analyze their causes and patterns of development. Engaging various disciplines such as political science, history, peace studies, psychology, and sociology, students will explore theoretical
and policy issues as the following: the conceptualization of genocide, the causes and prevention of genocide, the responsibility to protect and international intervention, genocide denial, gender and genocide, and collective memory. (Fall 2021)
Core: WI

Offered in alternate years

PPX 431 Political Reconciliation (4 SH)
How should a society address the legacies of mass atrocities and human rights violations of the past? This course examines the issue of political reconciliation after armed conflicts and violent political transitions. Students will explore key issues and debates related to transitional justice such as criminal prosecutions and trials, truth commissions, reparations, official apologies, amnesty, guilt and denial, and forgiveness. Such frameworks of political reconciliation will be critically examined, asking how well these policies fulfill an ethic of peacebuilding as well as justice and help societies address their pasts marred by conflict, violence, and oppression. (Fall 2020)
Core: WI

Offered in alternate years

PSYC 101 General Psychology (3 SH)
An introduction to the principles, language, methods and major topics of the science of behavior and mental life. Emphasizes exploration and application in the following areas of psychology: neuroscience, human consciousness, learning, memory, motivation, development, and abnormal behavior among others.
Core: SB

PSYC 202 Developmental Psychology (3 SH)
Designed to introduce the principles, theory, and methods of developmental psychology. Examines the factors affecting the development of behavior, cognition, and emotions throughout the entire lifespan. Current research relevant to the entire lifespan is reviewed and analyzed. Social and emotional issues affecting the individual, family, and community are analyzed.
Core: SB

PSYC 203 Developmental Case Study (1 SH)
Designed to introduce the skills of behavioral observation based on developmental principles. A one-to-one experience with a young child using suggested activities. To be taken during or after PSYC 202. Prerequisite: minimum of two semesters previous enrollment at EMU. Registration preference given to psychology majors.
Core: CL

PSYC 221 Social Psychology (3 SH)
This course examines the major variables affecting an individual’s beliefs, emotions, and behavior in social situations. Topics include prosocial behavior, aggression and violence, prejudice, social perception, social cognition, attitudes, self-justification, persuasion, conformity, media influence, and attraction. Principles derived from social psychology research are applied to cultural, institutional, and group processes. Prerequisite: PSYC 101 or PSYC 202.
Core: SB

PSYC 231 Applied Behavior Analysis (3 SH)
Develops students' skills of behavioral observation and analysis. Students learn to plan, conduct and evaluate programs of behavior change for themselves and others. Focuses on the ethical issues involved in the application of behavior principles to socially significant behaviors in a variety of settings.

PSYC 301 Psychology of Interpersonal Relationships (3 SH)
Provides a basic framework for conceiving of human communication as a unique combination of theoretical and practical skills. Students learn firsthand the dynamics of intrapersonal and small-group communication through a variety of activities designed to foster an increased awareness of how transactional communication works. The importance of interpersonal relationship skills in the helping professions is emphasized and an Anabaptist framework for working restoratively in community is explored in this course. Preference given to junior and senior level psychology majors.

PSYC 311 Psychological Design and Analysis (3 SH)
This course is a laboratory course designed to examine contemporary experimental work in psychology. Students will discuss experimental research and begin to develop computational expertise using JASP and Excel. This course provides exposure to psychological experimental methodologies, data analysis and application of skills learned in STAT 120 Descriptive Statistics. Prerequisite or corequisite: STAT 120.
PSYC 331 Abnormal Psychology (3 SH)
An interdisciplinary approach to understanding abnormal (maladaptive) behavior emphasizing the crucial roles of learning and life stressors in the development and maintenance of abnormal behaviors. The clinical characteristics, causal factors and treatments of maladaptive behavior patterns are examined, including the areas of assessment, therapy and prevention. Students will also learn to identify and evaluate the accuracy of psychological disorders as depicted in popular media. Prerequisite: PSYC 101 or PSYC 202.

PSYC 341 Cognitive Psychology (3 SH)
The field of cognitive psychology involves studying and thinking about thinking. Questions are asked about how we acquire, store, retrieve, and use knowledge. Students will actively study and apply various theories about human thinking. Topics such as models of memory, mental imagery, language comprehension, problem solving, decision-making, and cognitive development will be covered. Enrollment priority is given to sophomore and junior level psychology majors. Prerequisite: PSYC 101, or permission of the instructor.
Core: WI

PSYC 342 Cognitive Psychology for Health Sciences (3 SH)
An alternate offering of Cognitive Psychology. In addition to covering critical content that will appear on the MCAT, students will read current research with an emphasis on applying it to health professions. This course does not fulfill the EMU Core Writing Intensive requirement, and does not fulfill the Cognitive Psychology requirement for the Psychology major. (BMC 572)

PSYC 351 Positive Psychology: Theory Application (3 SH)
The focus of this course is on theories and current research in the field of positive psychology. Positive psychology as a science, studies human flourishing. Emphasis will be on the application of scientific knowledge of positive psychological principles that assist people to thrive in their everyday lives. Some topics to be covered include: bravery, hopeful thinking, wisdom, positive emotions, forgiveness, optimism, courage, positive schooling, and good work. (Fall 2020)
Offered in alternate years

PSYC 361 Theories of Personality (3 SH)
Empirical strategies that are particularly relevant to the study of personality process, human behavior and human experience provide a systematic study of the person. Major theories and principles of personality adjustment are studied, such as dispositional, genetic, cognitive and biological factors related to the understanding of personality. Prerequisite: PSYC 331.

PSYC 380-385 Topics in Psychology (3 SH)
Courses on a variety of topics in psychology are offered on a rotating basis depending on student and faculty interest. Topics include: cross-cultural psychology, marriage and family, introduction to clinical psychology, psychology of pop culture and theology, forensics, psychology and spirituality, creativity, and narrative psychology. Open to psychology majors only. Prerequisite: junior/senior level status.

PSYC 391 Introduction to Counseling (3 SH)
Counseling is studied from a Christian discipleship perspective. Emphasis is placed on understanding and developing helping skills utilized in the context of the church, mental health agencies, and school settings. Applications for counseling skills are examined along with a basic exposure to counseling theories and theories of development. Enrollment strictly limited to junior and senior psychology majors and helping professions.

PSYC 431 Psychological Testing and Assessment (3 SH)
An introduction to the field of psychological testing and assessment. Emphasis is placed on briefly covering a wide range of specific types of test and testing situations. Special emphasis is given to test use requirements, test taker rights, and matching tests with specific needs or questions. Theoretical and applied material will be integrated so as to provide students with the rationale for and a hands-on feel of the assessment process. As appropriate, students will have the opportunity to observe and/or informally administer psychological testing instruments. Prerequisites: STAT 120 and PSYC 331. (Fall 2020)
Offered in alternate years

PSYC 441 Teaching of Psychology (1 SH)
Students serve as teaching assistants for PSYC 101 or PSYC 202. Enrollment limited to psychology majors. Prerequisite: junior/senior level status.

PSYC 451 Neuropsychology (3 SH)
Survey of the anatomy and physiology of the nervous system, including the function of sensory receptors and hormones. Emphasis is placed on the role of general neurophysiological principles that affect human behavior. (BIOL 451) (Spring 2022)
PSYC 472 Research in Psychology (2 SH)
Introduces the essentials of designing, conducting, and evaluating research in psychology. Topics include: formulating research questions, understanding variables, research designs, control, conducting a literature review, sampling, measurement, collecting data, validity, reliability, and ethics. Both qualitative and quantitative methods are considered. Prerequisites: two semesters of successful coursework in psychology at EMU, STAT 120, PSYC 311 and PSYC 341.
Core: WI

PSYC 473 Research in Psychology: Applied (2 SH)
Students complete a research project under the supervision of psychology faculty. Involves formulating a research question, conducting a literature search, collecting and analyzing data, writing and presenting a final report. Open to majors only. Prerequisite: PSYC 472.

PSYC 482 Psychology Internship I (2 SH)
Students gain field experience in a psychology related agency. The practicum is designed to begin developing students' psychological skills and abilities as professionals by utilizing previous coursework. A written plan must be approved and a contract made with the agency where the practicum work will occur. The agency and the practicum instructor provide supervision. Open to senior psychology majors only. Prerequisites: two semesters of successful coursework in psychology at EMU and PSYC 331.
Core: CL

PSYC 483 Psychology Internship II (2 SH)
This capstone course builds on the field experience in Internship I. After students complete 150 hours of direct service in an area agency, they apply their learning in supervised settings by developing and presenting a case study, analyzing the integration of faith and practice, and exploring ethical decision making in the helping profession. The internship experience and processing sessions are designed to develop students' professional expertise in psychology. Open to senior psychology majors only. Prerequisite: PSYC 482.
Core: CL

PSYC 499 Independent Study (1 SH)

PXD 151 Exploring Conflict and Peace (3 SH)
This course introduces students to theories, key terms, concepts, and skills related to peace and conflict in war and violence, and justice and peacebuilding. Students will discover and attend to their own conflict styles, learn about introductory skills for dealing with conflict on an interpersonal level, become familiar with factors contributing to conflict at the community, national and international levels and explore peacebuilding as a framework for addressing conflict. An overview of current global issues is central to the course along with an exploration of rights, roles and responsibilities for individuals and nations.
Core: SB

PXD 225 Theories of Social Change (3 SH)
This course is designed as an introduction to key sociological theories, with a focus on how these impact the dynamics of social change. The theories covered range from micro social- psychology perspectives to macro-structural approaches. The course specifically interrogates how ideas about the nature of social relations influence our perceptions of how social systems are constructed, deconstructed and reconstructed. The course opens up the space for students to reflect on their own personal life journeys as well as provides the opportunity for vigorous debate around real-time contemporary issues and engagement with how theoretical frameworks actively shape the macro sphere and our collective lives. Most importantly, students experience how social theories are driving agents of change on the personal, local and global levels. Registration priority is given to students whose programs require this course. Prerequisite: PXD 151, SOC 101 or SOC 201 (SOC 225)
Core: WI

PXD 261 Community and Conflict Analysis Techniques (3 SH)
In order to promote sustainable change, it is important to understand the context in which we work. This course provides an introduction to social situation assessment strategies and conflict analysis. Students will complete a personal and community conflict assessment and consider how such analysis supports and contributes to change efforts including development and peacebuilding practice. Registration priority is given to students whose programs require this course. (Spring 2021)
Offered in alternate years
PXD 331 Restorative Justice and Trauma Awareness (3 SH)

The course provides a critical introduction to the restorative justice and trauma healing fields. Restorative justice will be examined within the criminal and traditional justice systems in American as well as several international contexts. Trauma healing will be explored as a component of the restorative justice process, and both are situated in a larger peacebuilding framework. The importance and power of Dignity will be examined as a component of the restorative process in post-crime contexts and as a preventative aspect of violence. One of the "hands-on" segments of the course will be an Alternative to Violence Project training at Graterford Prison in Pennsylvania.

PXD 335 Understanding Violent Conflict (3 SH)

This course provides an overview of explanations of violence at the personal, group, societal and national levels. Causes of violence are context-specific, multi-causal, multi-dimensional and may result from a variety of political and social, socioeconomic, and resource and environmental factors. The relationship between violence and social change will be explored. There will be special focus on explanations of war, terrorism, gun violence, and identity-based violence (gender-based, hate crimes, etc.). (Fall 2021)

Offered in alternate years

PXD 341 Mediation and Facilitation (3 SH)

This course is an introduction to the theory and practice of mediation and facilitation, two processes for conflict transformation. Students will learn about conflict, group dynamics theory, teambuilding, and leadership for transforming conflict. Students demonstrate learning through role plays and facilitation on campus of conversation on issues that cause tension. With its emphasis on practical applications, the course is useful for those planning to work in church ministry, business, education, social work, and many other areas. First- and second-year students by permission of instructor only.

PXD 345 Peacebuilding Theory and Action (3 SH)

The course will explore the theoretical bases for peacebuilding analysis and action. Given the interdisciplinary nature of the field, this course will draw on a number of theoretical streams to understand the assumptions that guide peace practitioners in action and reflection on their peacebuilding efforts. Prerequisite: PXD 225 or permission of instructor.

PXD 365 Social and Political Economy (3 SH)

This course introduces students to the interdisciplinary fields of social and political economy and the role that social, economic, political, cultural and environmental/ecological processes play in shaping society. Students will consider the political economy of various social problems such as poverty, war, exploitation, and protracted social conflict. Core: WI

PXD 375 Globalization and Justice (3 SH)

The task in this class is to examine the debates about globalization. Is it new? Is it a force for good or bad? Does it bring people together or drive them apart? Is it a homogenizing or fragmenting force? What, or who, drives it? Is ‘globalization' just another word for ‘Westernization'? How is it being resisted? We will also engage a further set of questions concerning theology and the church. How is globalization affecting the church? What does it mean to think in terms of a church whose center of gravity is no longer Europe and North America (if it ever was)? Core: CC

PXD 431 Peacebuilding and Development Practicum (1-3 SH)

A practicum provides PXD majors (and minors by permission) opportunities for practical off-campus experience in settings related to the field. Many students complete the practicum requirement by participating in the Washington Community Scholars' Center. Other local and global placements, including the possibility of an international practicum placement through the International Peacebuilding and Development Practicum (IPDP) program, may be pursued in coordination with the student's advisor. Core: CL

PXD 441 Leadership Practicum (1 SH)

Students gain leadership experience through leading program efforts or related student clubs in a variety of areas on campus and within the community. They reflect on leadership styles and analyze their own methods of communication and leadership through direct immersion. By permission only.

PXD 451 Program Evaluation Through Qualitative Methods (3 SH)

This course is designed to help students explore the theory and practice of program evaluation, especially if interested in working in social service, business development, mission-related programs or projects, and local or international NGOs. The course will review the current range of thinking on the philosophies, purpose, and structure of program evaluation, with an emphasis on how to use qualitative methods in evaluations. Students will gain hands-on experience in how to design an evaluation, how to determine the appropriate methods and collect data, and an analysis of on-going program evaluation and evaluation reports. Sociological and anthropological approaches will provide the theoretical and philosophical background for our work, but the focus will be on practical applications of qualitative methodology in evaluation. Prerequisite: SOC 336 (PAX 516) (Fall 2021)

Offered in alternate years
PXD 485 Global Development (3 SH)
This course introduces students to the field of global development through examining both the history of the field and the current debates and challenges faced by development practitioners. The purpose is to explore and critically evaluate the basic assumptions underlying the major competing theories and current approaches towards alleviating poverty and global inequality. This course approaches the phenomenon of development in its broadest sense as the study of change, with attention to global justice, equity, and the historical links between development, colonialism, and global capitalism. (PAX 985)

PXD 494 Foundations for Justice and Peacebuilding I (6 SH)
In this course a team of faculty members coaches students as they acquire foundational knowledge and practice the core skills for peacebuilding: analysis, theory, research, planning, and practice. Students work individually and in teams to apply theories and skills to cases that progress in complexity from interpersonal and small group to organizational level conflicts. Students also increase their self-awareness as well as their capacity for professional judgment and reflective practice. Accelerated program students only. (PAX 534)

PXD 495 Foundations for Justice and Peacebuilding II (6 SH)
In this course a team of faculty members coaches students as they further develop their knowledge and skills for dealing with conflict and situations of injustice. Students work individually and in teams to apply new ideas and skills to cases that progress in complexity from the community to the national and to the global level. Students continue to develop their self-awareness as well as their capacity for professional judgment and reflective practice. Accelerated program students only. (PAX 534)

PXD 499 Independent Study (1-4 SH)

REL 201 Introduction to Religious Studies (3 SH)
This course introduces a range of historical and contemporary approaches to the study of religion. Various theories and methodologies will be examined with special attention given to the functions of religion within culture and the insights this provides for Christians.
Core: CW
Offered in alternate years

REL 223 World Religions (3 SH)
A historical and comparative study of the great religions of the world in order to understand values and meaning in specific cultural settings. The religions are evaluated at the level of their own claims and in light of biblical revelation. Special attention is given to a theology of religions, to emerging models of Christian witness to other religions, and to Christian theological development in the context of non-Christian religions.
Core: CC

REL 310-315 Topics in Religion (3 SH)
This course is designed to focus on issues that arise in the discipline of religious studies or at the intersection of Christian theology and other disciplines. Topics may include inter-religious dialogue, race and gender, political theory, economics, peacebuilding, and trauma theory. Consideration will be given to how theology may best enter into mutually enriching conversation with other religions and other academic disciplines.

REL 423 Judaism, Christianity, Islam: Comparative Monotheisms (3 SH)
This course will focus on the three monotheistic religions. The literature, beliefs and practices of each religion will be examined and similarities and contrasts noted. Specific religious themes will be compared in the context of the Christian interface with Judaism and Islam. (Spring 2022)
Core: CW
Offered in alternate years

RSM 101 Introduction to Health, Physical Education and Recreation (3 SH)
The significance and meaning of health, physical education, recreation, leisure, play, and sport in modern society are examined. Includes the theories of play, models of sport, and the recreational and sport movement in the U.S. Role and scope of health, physical education, recreation and sport programs in the community, schools, commercial, and industrial settings are examined along with an introduction to professional and career issues in the field. (PE 101)

RSM 211 Sophomore Practicum (1 SH)
This is an opportunity for majors to explore involvement in the fields of recreation leadership and sport promotion, youth ministry, or kinesiology and sport science. A seasonal-level employment or volunteer position will be secured, with a suggested clock-hour involvement of fifty hours. Options include working in a university or high school athletic department, counseling at a summer camp, high school or university athletic training operation, or a physical...
therapy or adult fitness facility. Assignments will include several reflective exercises asking the student to explore characteristics of the profession and personal suitability to the field.

Core: CL

RSM 305 Risk Management in Recreation Sport (3 SH)
Proactive approach to managing risks associated with conducting recreation and sport related programs. This course will emphasize safety as a foundation of quality program planning. The topics include legal concepts related to specific managerial functions, impacts on functions in recreation and sport environments that result in more efficient and successful operation and protection for the organization.

RSM 309 Recreation and Sport Program and Event Planning (3 SH)
The course focuses on the principles and approaches to planning and implementing recreation and sport programs and events. A philosophical and practical basis for preparing a variety of recreation programs will be covered. Non-majors by instructor permission only. (Spring 2022)
Core: WI

Offered in alternate years

RSM 402 Facility Design and Supervision in Sports and Recreation (2 SH)
This class follows the facility planning and design process, from establishing and defining the need, to programmatic prioritization, to blueprint and specification development. Issues of supervision, management, and cost are considered. Applications will be for commercial and non-profit organizations; planning for both outdoor and indoor areas are addressed. (Fall 2020)

Offered in alternate years

RSM 405 Recreation and Sport Administration (3 SH)
The course focuses on organization and administration practices such as budgeting and purchasing, office management, annual reports, supervision of personnel, working with boards and volunteer leaders.

RSM 411 Senior Internship (4 SH)
This course is the culminating professional development experience for recreation leadership and sport studies majors. The involvement consists of a pre-professional or entry-level position in a related organization or agency, preferably emphasizing the student's specialty or concentration. The time commitment is a minimum of 10 weeks and 200 hours. Assignments include a personal journal, a time log, and various reflective pieces asking the student to apply theory to practice, and evaluate personal suitability to the field. An on-site supervisor conducts monitoring and evaluation, with an EMU faculty assigned as institutional liaison. Prerequisites: Senior status and departmental approval. WCSC 385 may satisfy for students who have earned 90 SHs prior to enrolment in WCSC.
Core: CL

RSM 499 Independent Study (1-3 SH)
Supervised readings and/or research in recreation leadership. Oral or written examinations and presentation of findings may be required.

SOC 101 Introduction to Sociology (3 SH)
In this course students will be introduced to the sociological method and to key theoretical perspectives that engage their sociological imagination around issues such as culture, race, gender, deviance, socialization, and stratification. This encounter will challenge students to analyze and observe life from diverse vantage points as they learn to systematically reflect on how and why individuals and groups behave as they do.
Core: SB

SOC 201 Sociology of Health (3 SH)
This course examines not only the social contexts that shape health and illness but also how these critically impact the provision as well as outcomes of medical care. The course is organized around social engagement at the micro, mezzo, and macro levels. This provides the sociology content required for MCATs.

SOC 210 Social Stratification (3 SH)
This course on human behavior in the social environment focuses on theories of social stratification and inequality. Students will explore various interpretations of the causes and consequences of inequality within the United States. Enrollment priority given to majors in the department. (SOWK 210)
Core: SB
SOC 225 Theories of Social Change (3 SH)
This course is designed as an introduction to key sociological theories, with a focus on how these impact the dynamics of social change. The theories covered range from micro social-psychology perspectives to macro-structural approaches. The course specifically interrogates how ideas about the nature of social relations influence our perceptions of how social systems are constructed, deconstructed and reconstructed. Most importantly, students experience how social theories are driving agents of change on the personal, local and global levels. Registration priority is given to DASS majors and students whose programs require this course. Prerequisite: PXD 151 or SOC 101 or SOC 201. (PXD 225) 
Core: WI

SOC 245 Environment and Society (3 SH)
The goal of this course is for students to develop a critical understanding of the dominant trends that have shaped environmental policy in the United States over the past 150 years. Key historical approaches include conservationism, deep ecology, ecofeminism, and the environmental justice movement. Throughout the course’s duration students will interrogate how perceptions regarding the environment play a central role in regulating how they interact with their natural surroundings.

SOC 255 Social Movements (3 SH)
This course provides a sociological framework for understanding the ways that people, working together, attempt to alleviate social problems. We begin by exploring and evaluating models and tactics of making change. We then examine forms of collective behavior, ending with a focus on social movements comprised of organized groups attempting to influence various audiences. Sociological theories are applied to historical and contemporary cases that involve violent and nonviolent tactics.
Offered in alternate years

SOC 330 Family in Social Context (3 SH)
Students explore contemporary family structure and dynamics from historical, cross-cultural, developmental, and practical perspectives. This course provides an overview of courtship, marriage, gender roles, parenting, aging, family crisis, and conflict resolution.
Core: SB

SOC 334 Cultural Anthropology (3 SH)
This course offers an overview of the study of culture in a globalized world. It introduces students to the field of cultural anthropology, a field that offers concepts and tools to study culture and navigate the complex, multicultural, and changing realities of the world around them. Students will learn to appreciate cultural diversity and cross-cultural engagement, gaining a deeper understanding of their role as agents of social change.
Core: CC

SOC 336 Methods of Social Research (3 SH)
The course provides an introduction to social research methods and prepares students to analyze, interpret, and critique quantitative social science research. Over the course of the semester students design and develop a research proposal. At various times during the semester the class will meet in a computer laboratory in order to access research tools and statistical software. Enrollment priority given to majors in the department. Prerequisite: STAT 120 and one of the following: SOC 101, SOC 201, POL 111, POL 113, PXD 151, GS 101.

SOC 350 Urban Sociology (3 SH)
In this course students explore their connection to an increasingly urban world by examining patterns of urban settlement, theories of urbanism, the "community question," and the problems and possibilities of urban life through the perspectives of urban planning. The course includes a focus on the roles of race and class as factors influencing social interaction and use of space in urban environments. Prerequisite: SOC 101 or SOC 201.
Offered in alternate years

SOC 351-355 Topics in Sociology (3 SH)
Courses on a variety of topics in sociology are offered on a rotating basis depending on student and faculty interest

SOC 360 Criminology (3 SH)
This course is an introduction to crime and society centered on criminological theories and methods and the ways such theories are integrated within public policy and the criminal justice system. Content also includes an examination of alternative forms of justice and restorative approaches. Prerequisite: SOC 101 or SOC 201.
Offered in alternate years

SOC 362 Criminal Justice (2 SH)
This course is designed to provide a basic foundation for understanding the different components of our criminal justice system, including Law Enforcement (roles, techniques, constitutional implications, and contemporary controversies including use of force, racial profiling, and implementation of technology); Courts (organization, process, specialization, judiciary, attorneys, trial procedures, and contemporary controversies including fines, bail, and indigent defense); and Corrections (historical development, purposes, prison subcultures, prisoners' rights, recidivism, and contemporary controversies including privatization, solitary confinement, death penalty, mass incarceration, and the "tough on crime" movement). Additionally, this course will cover Victimology (Crime Victims' Rights Movement, patterning of victimization, costs and consequences of victimization, victims' role within the criminal justice system, Victim Impact Statements, and victim advocacy), as well as Crime Prevention (primary/secondary/tertiary techniques, local programs, and role of Restorative Justice).

SOC 375 People, Place and Community (3 SH)
In this course we consider how communities differ from place to place and learn about community-based organizations working in and around DC to improve local neighborhoods. Community development focuses on meeting the needs of places that have been marginalized from political and economic power: communities with limited access to good schools, jobs, adequate housing, quality food, and other resources that make life easier and more fulfilling. We learn about the ways people work together to improve neighborhoods, to access external resources, and to more fully meet the needs of their neighbors.
Core: SB, WCSC

SOC 392 Junior Seminar in Social Research (3 SH)
Students examine the philosophy of science in sociology and gain experience in the practice of social research through work on individual projects. To be taken spring semester of the junior year. Offered as part of the sociology online collaborative. Prerequisite: SOC 336.
Core: WI

SOC 409 Field Experience in Sociology (3 SH)
Experience in the practice of sociological analysis or social research outside the classroom. Corequisite or prerequisite: SOC 392.
Core: CL

SOC 410 Senior Capstone (1 SH)
This course is designed as a summative experience for sociology majors. Questions related to academic conferences, resume writing, graduate school application, and sociology as a vocation will be addressed. Students may complete their research and writing, culminating in a formal presentation of their work. Prerequisite: SOC 392.

SOC 430 Environmental Justice (3 SH)
The course is designed to provide a basic foundation for understanding the different components of our criminal justice system, including law enforcement, courts, corrections, victimology, and crime prevention.
Offered in alternate years

SOC 442 Teaching of Sociology (1-3 SH)
Students interested in mentored teaching practice have the opportunity through this class to cultivate professional skills and to deepen understanding of discipline-specific content. Students can earn credit by serving as teaching assistants for SOC 101 or PXD 151. Enrollment is limited to majors or minors in the department. Prerequisite: junior/senior status by permission only.

SOC 499 Independent Study (1-3 SH)
Individual study arrangement. Open to juniors or seniors with faculty approval.

SOWK 101 Exploring Social Work (3 SH)
This entry-level course introduces the core competencies, skills, ethics and values necessary for generalist social work practice in contemporary society. Services, policies and practices are presented along with the unique experiences of marginalized populations affected by various social problems. Students participate in human service agency visits and engage in a 20-hour community learning volunteer experience.
Core: CL

SOWK 200 Social Behavior and Diversity (3 SH)
Social work has historically used the idea of person-in-environment and has developed a multidimensional understanding of human behavior inclusive of human diversity related to gender, class, race and ethnicity, culture, sexual orientation, and disability. This course follows a multidimensional approach highlighting case studies and focusing on biological, psychological, social, and spiritual dimensions of persons; as well as multiple contextual dimensions of environment including physical, cultural, social structural, family, small group, organizational, community, and social movement.
Core: SB
SOWK 210 Social Stratification (3 SH)
This course on human behavior in the social environment focuses on theories of social stratification and inequality. Students will explore various interpretations of the causes and consequences of inequality within the United States. Enrollment priority given to majors in the department. (SOC 210)
Core: SB

SOWK 220 History and Philosophy of Social Welfare (3 SH)
This course explores the historical roots of social welfare and the development of social welfare philosophy and policy in the United States through a historical overview of society's helping process toward diverse populations-at-risk. This course describes and critiques historical and current social welfare organizations - their policies, programs, and services. Attention is given to developing professional values to undergird the helping process. Recommended prerequisite: SOWK 101.

SOWK 310 Social Work Practice I (3 SH)
This course focuses on common models and theoretical frameworks that guide direct social work practice, client assessment and intervention. The course provides structured practice of the fundamental interpersonal skills required for effective social work practice teaching interviewing skills, critical thinking about interview processes, and the stages of the social work helping process (from intake through termination). Students will learn strength-based client assessment, apply social work ethical principles to learning exercises and real or simulated case situations that evolve their understanding of professional social work roles and responsibilities. Course is restricted to students who have formally declared their social work major with the registrar's office. Prerequisites: SOWK 101, SOWK 200 or PSYC 202

SOWK 330 Social Policy Analysis (3 SH)
This course provides an overview of social welfare policy (including social insurance, public welfare, and social services) in the global context. Generalist social work practitioners need to understand how global, national, state, and local policies affect the delivery of human services, and the importance of social work advocacy both on behalf of vulnerable populations, and the organizations and programs that address human social problems. Students engage in research, analysis and critique of a national or state level social problem and its historic and contemporary social welfare policy responses. This course builds on content introduced in SOWK 220 Social Welfare History and Philosophy.
Core: WI

SOWK 360 Race and Gender (3 SH)
This course focuses on the systemic nature of racism and sexism in the United States. Students will explore the social patterns and history that shaped these realities. And they will look at how class, poverty, age, education, power, and other elements contribute to social inequality related to race and gender. Students will develop conceptual tools that lead to informed, reflective and transformative interpersonal and institutional practices and policies. Prerequisite: SOC 101, SOC 201 or PSYC 101.
Core: CC

SOWK 400 Social Work Practice II (3 SH)
Social Work Practice II highlights Strengths-Based and Trauma Informed Approaches to generalist practice at the Mezzo level. Students learn a working model for knowing and doing in social work practice oriented around common challenges of living including: poverty, violence, child maltreatment, trauma, substance abuse, and depression. Activities and assignments provide opportunities for students to use direct interaction skills with groups, and to enhance writing and research skills in a collaborative task group. Skill development includes effective communication, professional boundary setting, collecting and assessing information, documentation, crisis intervention strategies, and maintaining professional values and ethical standards. This course is a Writing Intensive (WI) designate and restricted to social work majors accepted into the social work program. Prerequisite: SOWK 310
Core: WI

SOWK 410 Social Work Practice III (3 SH)
Social Work Practice III focuses on social work macro practice at the group, community, and organizational levels. Practice III builds on generalist social work practice introduced in Practice I (Micro), Practice II (Mezzo), and policy practice introduced Social Policy Analysis. Course texts present holistic approaches to practice encompassing mind, body, spirit, and environment. Sustainability at the macro level as well as the personal-professional level is a thematic emphasis of the course. Students observe and evaluate ideas regarding communities, leadership of agencies and organizations, advocacy, and interagency collaboration, and enhance self-understanding for practice in preparation for professional BSW macro roles and responsibilities. This course is restricted to social work majors accepted into the social work program. Prerequisite: SOWK 310

SOWK 420 Topics in Social Work (3 SH)
A Topics in Social Work course is an upper level elective course from any department chosen to deepen understanding of a topic relevant to social work practice or a special population of interest. Students are encouraged to work with their advisor to choose a course that furthers the student's unique interests and professional use of self for practice. The following courses are pre-approved social work topics courses: PSYC 331 Abnormal Psychology; PSYC 391 Introduction to Counseling; PXD 341 Mediation and Facilitation; PXD 331 Restorative Justice and Trauma Awareness; PXD 451 Program Evaluation through qualitative methods; PXD 335 Understanding Violent Conflict; PXD 375 Globalization and Justice; SOC 330 Family in the Social Context, SOC 360 Criminology; SOC 334 Cultural Anthropology; HUM 421 Tutorial: Becoming American.
SOWK 430 Senior Practicum in Social Work (12 SH)
The senior practicum is a semester-long, capstone experience for the social work major. Students complete a 430-hour placement in an approved organizational setting. The practicum is designed to provide students with opportunities to integrate and apply social work knowledge, values, and skills in real practice situations in a purposeful, intentional, and professional manner to promote human and community well-being. The student performs social work roles and responsibilities similar to those of a new staff member logging between 30-35 hours a week. Students are expected to engage in beginning generalist social work practice with attention to implementation of the nine CSWE core competencies for social work practice. The practicum seminar class, taken concurrently with practicum, assists students with further application and integration of social work knowledge, values, skills, and integration of cognitive and affective responses to practicum experiences as identified by the nine CSWE core competencies.
Core: CL

SOWK 441 Leadership Practicum (1 SH)
Students gain leadership experience through leading program efforts in a variety of areas on campus and within the community. They reflect on leadership styles and analyze their own methods of communication and leadership through direct immersion. By permission only.

SOWK 499 Independent Study (3 SH)
Independent research or readings in social work under the supervision of a faculty member. Designed for advanced students.

SPAN 110 Elementary Spanish I (3 SH)
The fundamentals of Spanish through listening, speaking, reading and writing, including practice in pronunciation and development of comprehension. Regular oral practice with a native-speaker language assistant. This course is typically appropriate for students with no Spanish language background or with a maximum of one year of high school Spanish.
Core: CC

SPAN 120 Elementary Spanish II (3 SH)
Continuation of SPAN 110. Regular oral practice with a native-speaker language assistant. A student may not receive credit for both SPAN 120 and SPAN 130. This course is typically appropriate for students who have completed SPAN 110 Elementary I or who have had one to two years of high school Spanish. Prerequisite: SPAN 110.
Core: CC

SPAN 130 Elementary Spanish in Review (3 SH)
This course is designed for high-beginning college students. It aims at reviewing concepts already learned in one or two years of language study in high school, and having students prepared for further study at the intermediate level. Covers in one semester the same material covered in SPAN 110 and SPAN 120. Regular oral practice with a native-speaker language assistant. A student may not receive credit for both SPAN 120 and SPAN 130.

SPAN 210 Intermediate Spanish I (3 SH)
This courses focuses on conversational themes. Students will increase oral and written fluency, cultural understanding, and compare Hispanic culture to their own native culture. The course engages learners in speaking, listening, and writing activities based on communicative and task-based approaches to reinforce and review core functional-linguistic structures (narrating in the present and past tenses; expressing beliefs, opinions and other discourse tasks; distinguishing between verbs "ser" and "estar"; expressing likes and dislikes; giving commands and/or guidelines; talking about real, imagined, and future events). Students discuss short films and cultural readings and regularly attend conversation sessions with a native-speaker language assistant. This course is typically appropriate for students who have had three or four years of high school Spanish. Prerequisite: SPAN 120, SPAN 130 or equivalent.
Core: CC

SPAN 220 Intermediate Spanish II (3 SH)
This course is a continuation of SPAN 210 and focuses on conversational themes. Students will increase oral and written fluency, cultural understanding, and compare Hispanic culture to their own native culture. The course engages learners in speaking, listening, and writing activities based on communicative and task-based approaches to reinforce and review core functional-linguistic structures (narrating in the present and past tenses; expressing more complex opinions and feelings about recent and past events; discuss hypothetical situations; use grammar structures specific to oral and written language; articulate specific preferences; and express agreement or disagreement). Students discuss short films and cultural readings and regularly attend conversation sessions with a native-speaker language assistant. This course is typically appropriate for students who have had four or five years of high school Spanish. Prerequisite: SPAN 210 or equivalent.

SPAN 231 Intermediate Spanish for Healthcare Professionals I (3 SH)
SPAN 231-232 is an online, eight-week summer course for healthcare workers that seeks to increase their effectiveness in communicating with Spanish speaking clients and co-workers. This course emphasizes the development of reading, writing, listening, and speaking skills within a medical context.
Topics include how to greet patients, brief conversations, preliminary patient information, checking into the hospital, at the pediatrician's office, at the gynecologist's office, and other general health subjects. Students will acquire and use medical vocabulary and forms and structures; explore healthcare issues affecting the Hispanic world; and read about and discuss Hispanic culture. With a conversation assistant and/or classmates, students will record and role-play typical doctor/patient interactions, as well as other medical situations. Prerequisite: SPAN 110, SPAN 120, SPAN 130, or equivalent level of study in high school. This course is not designed for heritage or native speakers. (Summer 2021)
Core: CC

Offered in alternate years

SPAN 232 Intermediate Spanish for Healthcare Professionals II (3 SH)
SPAN 231-232 is an online, eight-week summer course for healthcare workers that seeks to increase their effectiveness in communicating with Spanish speaking clients and co-workers. This course emphasizes the development of reading, writing, listening, and speaking skills within a medical context. Topics include how to greet patients, brief conversations, preliminary patient information, checking into the hospital, at the pediatrician's office, at the gynecologist's office, and other general health subjects. Students will acquire and use medical vocabulary and forms and structures; explore healthcare issues affecting the Hispanic world; and read about and discuss Hispanic culture. With a conversation assistant and/or classmates, students will record and role-play typical doctor/patient interactions, as well as other medical situations. Prerequisite: SPAN 110, SPAN 120, SPAN 130, or equivalent level of study in high school. This course is not designed for heritage or native speakers. (Summer 2021)
Core: CC

Offered in alternate years

SPAN 301 The Art of Storytelling (3 SH)
This conversational course is an exploration of the art of storytelling. Students will tell, read, and write short stories. We will focus on important decisions authors make regarding how to write a story: the nature of narrative voice, plot details, character development, symbols, and metaphors. Students will examine the structure and themes of short stories authored by Esteban Echeverría, Jorge Luis Borges, Juan Rulfo, Julio Cortázar, Elena Poniatowska, Isabel Allende, and Rosario Ferré (Fall 2021)
Core: CC, LI

Offered in alternate years

SPAN 302 Flavors of Hispanic Culture (3 SH)
This conversational course offers a close understanding of Hispanic culture through a variety of food that mirrors diversity, history, traditions, believes, national and cultural identity, collective memories and taboos. The course covers from ancestral food practices prior to the encounter with the European colonists to contemporary culinary expressions of Hispanic dishes existent in many homes, poetry, novels, movies and songs of the diverse and multifaceted Hispanic kitchen. Prerequisite: SPAN 220 or consent of instructor.
Core: CC

Offered in alternate years

SPAN 303 Dictatorships and Social Movements (3 SH)
This conversational course explores the dictatorships and social movements surrounding the Mexican Revolution, Cuban Revolution, The Spanish Civil War, and the dictatorships of the Southern Cone, and others. Students will examine the sociohistorical circumstances that lead to dictatorship, characteristics of dictatorships, and the various methods activists took up to denounce them and free their countries from oppression. Through a deep understanding of these histories, students will question the nature of democracy and evaluate the post- dictatorship societies. Prerequisite: SPAN 220 or consent of instructor. (Fall 2020)
Core: CC, HI

Offered in alternate years

SPAN 320 Constructing Identities (3 SH)
SPAN 320 is one of two critical thinking and composition courses at the 300 level with emphasis on analytical reading and writing skills necessary for upper level coursework. Students will practice journalistic and analytical writing while reading and discussing topics related to love, globalization, and gender. The successful SPAN 320 student will be able to discuss the interaction between the self and environment both in the spoken and written modalities. (Fall 2020)
Core: CC, WI

Offered in alternate years

SPAN 325 The Latino Experience (3 SH)
SPAN 325 is one of two critical thinking and composition courses at the 300 level with emphasis on analytical reading and writing skills necessary for upper level coursework. The topic of Critical Thinking and Composition B is The Latino Experience. Students will practice argumentative writing while reading and discussing topics related to Spanish- speaking populations in the United States and the world. The successful SPAN 325 student will be able to discuss the role of voice in identity both in the spoken and written modalities.
Core: CC, WI
SPAN 330 Immigration Issues (3 SH)
This course combines experiential community learning in the local Latino community with in-depth research and reflection on local, national and global immigration/migration issues. Community-learning combines academic study with concrete service to the community. It engages students in understanding the community in which they work, requires thoughtful reflection on their experiences, and stimulates critical thinking and academic research. Class discussions will focus on readings, documentary films, personal immigrant stories, student service experiences, etc. (Spring 2022)
Core: CC, CL

SPAN 335 Spanish of the United States (3 SH)
This course provides a critical overview of the linguistic practices of Spanish-speaking communities in the United States. The class focuses on the historical migration paths of Honduran, Salvadoran, Guatemalan, and Mexican communities. The main goal is to develop critical and linguistic awareness about the dynamic encounter between Spanish and English in the United States: the shaping of Spanish and English, practices of language use, attitudes, and stereotypes. Prerequisite: SPAN 220 or consent of instructor. (Spring 2021)
Core: CC

SPAN 340 Introduction to Spanish Translation and Interpretation (3 SH)
This course provides an introduction to two different professions and skill sets: translation (written translation from Spanish to English and English to Spanish) and interpretation (oral translation from Spanish to English and English to Spanish). Emphasis is on the practice of translating from Spanish to English in a variety of prose styles and working as translation teams. Additionally, students will be introduced to and practice consecutive and simultaneous oral interpretation. Upon completion, students should be able to demonstrate an understanding of the processes involved in and skills necessary and professional and ethical standards for translation and interpretation.
Core: CC

SPAN 360 Spanish for Health Care Professionals (3 SH)
This course enables students to develop their proficiency in medical Spanish and intercultural competence so that they are able to communicate effectively with Spanish-speaking patients or to be a competent patient in a variety of health care situations. Key global health issues and the role of new health technologies are explored in the context of global health challenges and medical ethics as well as the role of national health care systems, international organizations, NGOs, and social movements in promoting health. Prerequisite: SPAN 220 or consent of instructor. (Spring 2021)
Core: CC, CL

SPAN 411 Globalization in Latin American Cinema (3 SH)
This course will enhance students' critical and analytical reading and writing skills through a study of cinematic production in Hispanic America and Brazil from 1990-2012. The emphasis will be on the shift in cinema from national and historical themes to a cinema that reflects a diverse and interconnected world. Students will use cinematographic terminology and read film criticism to explore and discuss themes related to the conquest of the New World, feminism, neoliberalism, hierarchies of ethnicity, race and social class as well as human migration and trafficking.
Core: CC

SPAN 420 Narratives of Trauma and Resilience (3 SH)
How does cultural trauma shape the identities of peoples in Hispanic America? What does resilience look like in postconflict societies? Students will examine a selection of contemporary texts produced in Guatemala, Perú, Colombia, and Chile in response to armed struggles and truth processes. This course will enhance students' critical and analytical reading and writing skills through a study of cultural production about violent histories, truth and reconciliation, restorative justice, and moving forward after trauma. Specific topics that may be covered include cultural trauma and resilience studies, discourses and idioms of trauma, and efforts at transitional justice. Prerequisite: SPAN 320/325 or consent of instructor.
Core: CC, LI

SPAN 425 Indigenous People and Conquest (3 SH)
This course first explores the rich history, culture, and sociopolitical structure of the Aztec, Maya, and Inca civilizations prior to the conquest of the Americas. Additionally, this course prepares students to engage in the study of myths surrounding the conquest of the Americas and the role indigenous allies, Africans, and traitors to the Spanish crown played in the conquest and exploration of the New World. This course will also provide students with contemporary cultural knowledge of present-day indigenous culture, transculturation, struggles, and survival in the modern nation-state. Prerequisite: SPAN 320/325 or consent of instructor.
Core: CC, HI
SPAN 430 Marginalized Voices in Hispanic America (3 SH)
This course will enhance students' critical and analytical reading and writing skills through an interdisciplinary study of the indigenista and feminist discourses. The emphasis will be on strategies for articulating the experience of racial and ethnic minorities and women in patriarchal societies and the role of literature as a reflection of and a catalyst for political and social change. Specific topics that may be covered include, but are not limited to: resistance to and (de)construction of racialized, gendered, and ethnic categories/social roles, creation of a narrative space for the alternative worldviews, problematic of speaking for the subaltern, the experiences of indigenous peoples, and problems of representation. Prerequisite: SPAN 320/325 or consent of instructor. (Fall 2022)
Core: CC, LI
Offered in alternate years

SPAN 470 Spanish Internship (1-3 SH)
The Professional Internship Program is a cooperative endeavor among upper-level students, the community and the language and literature department. An internship provides an opportunity for students to explore career options and to extend their classroom experiences and learning with both job-related and academic responsibilities. Department approval needed one semester in advance. This course is graded on a P/F basis. Prerequisite: SPAN 320/325 and consent of instructor.
Core: CC, CL

SPAN 499 Independent Study (1-3 SH)
Advanced work in literature, conversation or composition. Prerequisite: SPAN 320/325 and consent of instructor.

SRSEM 460 Business Ethics (3 SH)
In this course, the student formulates a philosophy of life, providing the base for such concerns as ethics in business, accountability in government, respect for human rights, and a responsible lifestyle in our contemporary world. With a focus on three basic ethical perspectives - virtue theory, deontological theory, and utilitarianism, ethical theories and personal values are examined through readings, analysis of the workplace, and classroom discussion.

SRSML 450 Issues and Values (3 SH)
In this course the student formulates a philosophy of life that provides the basis for professional ethics and accountability, respect for human rights, and a responsible lifestyle in our contemporary world. Ethical theories and personal values are examined through readings, analysis of the workplace, and classroom discussion.
Lancaster

SRSML 460 Business Ethics (3 SH)
In this course, the student formulates a philosophy of life, providing the base for such concerns as ethics in business, accountability in government, respect for human rights, and a responsible lifestyle in our contemporary world. With a focus on three basic ethical perspectives - virtue theory, deontological theory, and utilitarianism, ethical theories and personal values are examined through readings, analysis of the workplace, and classroom discussion.
Lancaster

SSC 490 Social Sciences Capstone (2 SH)
This course provides a cumulative and integrative experience that ties together key learning objectives with reflections on vocation and career for majors in the School of Social Sciences and Professions. These conversations will be carried on through class presentations, readings, discussions, interactions with professors and the preparation of a major project.

STAT 120 Descriptive Statistics (2 SH)
Displays of data, measures of center and spread, correlation, normal distributions, and interpretation of statistical tests. Spreadsheets will be used throughout the course. Credit will not be given for both this course and STAT 140.
Core: MATH

STAT 130 Nonparametric Statistics (2 SH)
Nonparametric statistics, Chi-squared tests, and use of statistical software. Prerequisite: STAT 120 or instructor approval. Offered every other fall. (Spring 2022).
STAT 140 Elementary Statistics (3 SH)
This general education course provides an introduction to descriptive and inferential statistics. Topics include correlation, normal distributions, confidence intervals, and hypothesis testing. Spreadsheets will be introduced and used throughout the course. Credit will not be given for both this course and STAT 120 or STAT 220. This course is offered only through EMU Lancaster.
Core: MATH, Lancaster

STAT 220 Inferential Statistics (2 SH)
Normal and binomial distributions, confidence intervals, P-values, correlation, and one- and two-sample hypothesis tests, using statistical software. Prerequisite: STAT 120 or instructor approval. (Students wishing to take STAT 220 who have not taken STAT 120 (or an equivalent course) should work through an EMU-provided module that will acquaint them with means, standard deviation, and the standard normal distribution.)
Core: MATH

STAT 230 Regression and ANOVA (2 SH)
Linear and multiple regression, logistic regression, one-way and two-way Analysis of Variance, statistical software. Prerequisite: STAT 220.
Core: MATH

THEO 201 Introduction to Theology (3 SH)
An overview of the role that theological reflection plays in the life of the believer and the church. Students will be exposed to different methods and understandings of theology, major issues in the history of theology, and key contemporary theological issues and debates.
Core: CW

THEO 312 Topics in Christian Theology (3 SH)
An advanced study of key thinkers and topics in theology in order to more fully develop skills of theological analysis, discussion and presentation. Students gain an appreciation of the role of theology within the life of the church to become better prepared for a role in the church's theological task. Provides an intensive setting for reflection on theological understandings and inter-disciplinary conversation with theology.
Core: CW

THEO 323 Biblical Theology of Peace and Justice (3 SH)
In this course, students study biblical materials relating to peace and justice. Aspects of the study are the Old Testament's vision of creation, fall, deliverance, covenant, law, and prophetic critique; the New Testament's portrayal of Jesus, the One who fulfills the Old Testament prophetic vision—bringing salvation and establishing a community of justice and peace; the early church's interpretation of Jesus; and consideration of how the biblical vision of peace and justice applies to our modern world.
Core: ABP

THEO 412 Liberation Theologies (3 SH)
Liberation theology names the effort to understand and interpret the gospel through conscious and reflective deliberation within experiences of injustice, inequality, violence, and oppression. This course will explore some of the various expressions that have arisen under the banner of liberation, such as Black theology, feminist theology, queer theology, and theology in the face of empire. (Fall 2021)
Core: CW

Offered in alternate years

THEO 499 Independent Study (1-3 SH)

THR 100 Acting for the Stage and Screen (2 SH)
This course helps students of all disciplines unleash their creativity as they explore the fundamentals of acting for theater and cinema. Students will gain skills in speaking and textual analysis as they learn to connect with their bodies. This class will also make students more informed audience members of plays and films.
Core: CA

THR 200 Survey of World Theater History (2 SH)
This course covers major movements in world theater history, beginning with the Greeks and ending with contemporary experimental performance. Students will read plays and theoretical texts and watch films so that they gain a full understanding of the intersection of text, theory, and performance spectacle in world theatre styles. Much emphasis will be placed on non-Western performance styles.

Core: HI, LI

**THR 210 Technical Theater (2 SH)**
This course covers basic stagecraft and design. It includes hands-on experience in rendering, model-building, and drafting that will allow students to realize their own creative design. Students may also contribute to the design and construction of public performances at EMU.
Core: CA

**THR 230-235 Topics in Theater (2 SH)**
Various theater topics are offered depending upon student interest and faculty availability. Recurring topics courses are in technical theater and other areas of specialization that provide students with a broad understanding of the discipline.
Core: CA

**THR 231 Topic: Musical Theater (2 SH)**
Integrating practice with history and theory, this course examines the use of music in theater from the advent of opera in Renaissance Italy to the American Broadway musical. Students will perform songs and engage with dance/movement as they learn to become better performers and more informed audience members. Students with all levels of experience from absolute beginner to seasoned performer are welcome! (CMUS 205) (Fall 2020)
Core: CA

*Offered in alternate years*

**THR 232 Topic: Yoga and Movement (2 SH)**
Students will learn basic to advanced yoga poses as they become more physically fit and aware of their bodies. Students from all academic disciplines are welcome!
Core: CA

*Offered in alternate years*

**THR 281 Acting Practicum (1-3 SH)**
Students may earn 1 credit per 40 hours of work on an EMU theater production. A total of 3 credit hours may be earned in one semester.

**THR 300 Directing for the Theater (2 SH)**
Students learn basic principles of stage direction and apply them in production-oriented settings. This course may culminate in the direction of original student work, including short plays developed in the Playwriting course or devised/movement pieces. These may be performed publicly.
Core: CA

**THR 350 Technical Theater Practicum (1-3 SH)**
Students may earn 1 credit per 40 hours of work on an EMU theater production. A total of 3 credit hours may be earned in one semester. Practicum credits may be earned.

**THR 351 Stage Management Practicum (1-3 SH)**
Students may earn 1 credit per 40 hours of work on an EMU theater production. A total of 3 credit hours may be earned in one semester.

**THR 352 Assistant Directing (1-3 SH)**
Students may earn 1 credit per 40 hours of work on an EMU theater production. A total of 3 credit hours may be earned in one semester.

**THR 353 Dramaturgy (1-3 SH)**
Students may earn 1 credit per 40 hours of work on an EMU theater production. A total of 3 credit hours may be earned in one semester.
THR 360 Playwriting (2 SH)
Through various writing exercises and play readings, students work towards crafting original short plays. Much emphasis is placed on helping students collaborate with actors as they workshop their plays/screenplays. Some plays may be selected for a showcase of new student plays during the academic year.
Core: CA, WI

THR 361 Screenwriting (2 SH)
Through various writing exercises and film viewings, students work towards crafting original short screenplays. Much emphasis is placed on helping students collaborate with actors as they workshop their screenplays. Students may also collaborate with VACA students on the development of narrative films or choose to create films based on their own screenplays through the VACA course entitled Visual Storytelling: Fiction.
Core: CA, WI

THR 499 Independent Study (1-3 SH)

VACA 112 Digital Photography (3 SH)
VACA 112 is an introduction to photography using the digital format. The emphasis will be on composition, artistic personal expression and the use of new media technology. Aesthetics and the creative process begin the class. Understanding fundamental photography issues, light, composition, camera operation, and digital editing are covered. Photographing people, communicating an idea, and design assignments are explored.
Core: CA

VACA 121 Drawing (4 SH)
This course is designed to develop confidence in drawing and build basic drawing and perceptual skills. A variety of drawing media, techniques and conceptual approaches will be used.
Core: CA

VACA 131 Three Dimensional Design (4 SH)
Three-Dimensional Design develops a fundamental understanding of a variety of techniques, processes, and styles in three-dimensional media. Students will be challenged to become thoughtful of formal and conceptual concerns in art, while investigating the technical aspects of three-dimensional design. Students will gain practical experience by using various materials as well as by employing compositional and conceptual theories to create sculptures.
(Spring 2021)
Core: CA

VACA 141 Foundations of Design (4 SH)
This foundational class for Visual and Communication Arts emphasizes visual skills and creative problem-solving related to principles of design in two-dimensional art. Students explore the elements of composition and color theory through hands-on studio work and digital design tools.
Core: CA

VACA 142 Graphic Design I (2 SH)
Using a process approach, students will learn to utilize Adobe Photoshop, Illustrator and InDesign as they pertain to contemporary graphic design. The class will explore the relationship between image, typography and other visual elements in order to learn the basics of good design.

VACA 151 Photography I (2 SH)
This hands-on course introduces students to digital imaging processes that include camera acquisition, digital image correction, and output. Students gain foundational skills in photographic composition and digital image manipulation as well as a basic understanding of how digital images may be employed in digital media and art production.
Core: CA

VACA 221 Watercolor Painting (3 SH)
This course provides an introduction to watercolor for beginning painters and those interested in adding color drawings and sketches. This course covers a variety of techniques including washes, wet-in-wet, wet-on-dry, monotypes, pen-and-ink with color tinting. Students will also have opportunity for skill
development following demonstrations with guided and independent practice. When the weather is especially lovely we'll move the classroom outside and enjoy plein air painting. Offered summers only.

Core: CA

VACA 222 Painting (4 SH)
An introduction to painting in water-mixable oil or acrylic media. This course is designed to develop confidence in painting along with basic techniques and perceptual skills. A variety of approaches are used.
Core: CA

VACA 232 Ceramics (4 SH)
Ceramics is a comprehensive course designed to explore a variety of techniques and processes in clay. Sculptural and functional pieces will be created using both hand building and wheel techniques. Students will be challenged to become proficient in creating work, glazing, and will learn about firing processes.
Core: CA

VACA 242 Graphic Design II: Digital Layout (2 SH)
Using the creative process approach, students will work with typography and imagery in order to create effective layout solutions for print and digital media. Focus will be on Adobe InDesign and how it works in conjunction with Illustrator and Photoshop. Prerequisite: VACA 142

VACA 243 Graphic Design III: Illustration and Drawing (2 SH)
The focus will be on Adobe Illustrator and the use of the its tools to create digital illustrations and logo design. The emphasis will be on technical and creative process in order to provide a final visual solution. Prerequisite: VACA 142

VACA 252 Photography II (4 SH)
Explore digital darkroom work and the technical, historical, and philosophical foundations of photography. Topics include image capture, color theory, image correction and interpretation, color management, digital output methods, archival printing, and contemporary practices and theory related to color and monochrome photography. Students learn how to create professional lighting setups in relation to multiple photographic genres. Prerequisite: VACA 151.

VACA 262 Video Production (4 SH)
This course is a practical hands-on introduction to the video camera and to non-linear editing. It covers operation of the camera, basic lighting and sound, camera movement and support. Issues of composition, content, aesthetics, continuity and creativity will be explored with exercises, labs and real-life shooting. The non-linear video editing will cover both technical and philosophical issues of editing. Productions will introduce both fiction and non-fiction forms. Prerequisite: VACA 151 or equivalent.
Core: CL

VACA 263 Audio Production (2 SH)
In this course students produce a variety of short and long form audio productions, from promotional spots to news features as well as music performances and audio portraits. Students will work with digital software editing programs to produce works utilizing a variety of recording and processing techniques. Course sections include psychoacoustics (sound and how we hear it), the production process (from idea to finished product), microphones (types and uses), live recording, audio processing and effects, editing, and numerous projects with a variety of applications. Students should consider taking this course while enrolled in VACA 262. (Fall 2021)

Offered in alternate years

VACA 283 Art History: Western (4 SH)
An overview of important factual and conceptual elements of visual art and history spanning over thirty thousand years. The course covers aesthetic objects separately as works of art and examines religious, social, political, and philosophical concepts in historical and cultural contexts.
Core: WI

Offered in alternate years

VACA 323 Printmaking and Watercolor (4 SH)
Relief printmaking is an ancient form favored by contemporary artists in which images are printed on paper from wood and other materials. Screen printing is a newer process in which ink is forced through fabric onto paper and other materials. These processes are used to develop rich, colorful prints with an
emphasis on visual ideas and technique. An introduction to watercolor covers a variety of techniques including washes, wet-in-wet, wet-on-dry, monotypes, pen-and-ink with color tinting. Students will also have opportunity for skill development following demonstrations with guided and independent practice. When the weather is especially lovely, we'll move the classroom outside and enjoy painting en plein air. (Fall 2020)
Core: CA

Offered in alternate years

VACA 332 Intermediate Ceramics (2 SH)
Building on the foundation of ceramics, students are challenged to expand their vocabulary of ceramic form and function. Hand building and wheel throwing techniques will be explored for both vessel and sculptural work. Technical understanding of surface treatments, firing techniques, glaze formulation, and ceramic processes are emphasized as tools used toward formal and conceptual success. Students have the opportunity to pursue more individual concerns in tandem with class directed assignments. In conjunction with increased technical proficiency, students will expand critical awareness through the investigation of conceptual, historical and contemporary art issues, ultimately increasing professionalism and the development of a personal aesthetic.

VACA 335 Installation and Experimental Media (4 SH)
In this course students will explore how installation and experimental art immerses the viewer in a multi-sensory experience. Through both traditional and nontraditional media such as photography, video, painting, ceramics, sculpture, etc., students will explore the impact of materials and techniques on form, content and the expressive possibilities of various materials on a space. Through experimentation, boundaries of traditional art practices will be challenged to transform the perception of space. (Spring 2022)

Offered in alternate years

VACA 344 Web Design and Social Media (4 SH)
This class explores Web design and social media applications as they relate to expression and organizational communication. Students will construct web sites using both HTML coding and contemporary Web design software. Social media applications will be integrated in a holistic way as part of an overall communications strategy. Prerequisite: VACA 141 or equivalent.

VACA 345 Advanced Photoshop (4 SH)
Students will study advanced Photoshop techniques with special emphasis on masking and compositing photographs. Students will practice layering, digital effects, and photo repair as well as investigating imaging in a theoretical and philosophical context. Prerequisite: VACA 151 and VACA 252.

VACA 353 Alternative Photo Processes (4 SH)
Students will experiment with alternative acquisition and printing processes. Acquisition methods will cover pinhole, panoramic, HDR, legacy lens, and infrared processes. The history of photographic methods will be studied. The genre of landscape will be explored with several of the techniques. Students will print on alternative forms such as art and Japanese papers, metal surfaces, canvas and other media forms. Prerequisite: VACA 151 and VACA 252.

VACA 354 Conservation Photography (4 SH)
Explores the intersection of photography and environmental conservation. Topics include aesthetic responses to the natural world, visual documentation of ecosystems, conservation advocacy and the relationship between human communities and the natural world. Students work in small groups on a semester-long documentation/storytelling project in conjunction with a partner organization. Prerequisite: VACA 151 (Fall 2020)
Core: CA

Offered in alternate years

VACA 364 Motion Graphics/After Effects (2 SH)
Explores the art and communication of merging video, the graphic arts and text into messages with multiple layers of meaning and artistic interest. Students will become adept at compositing; moving video, still images, text and line art. Layered Photoshop files will be animated into finished video. The primary forms studied for this class will be opening and closing logos, advertising, visual music and short form 2-D animated storytelling. Students should schedule this class in the same semester at taking one of the Visual Storytelling classes. Prerequisite: VACA 151 or equivalent and VACA 262 or faculty approval.

VACA 367 Hybrid Storytelling (4 SH)
Using photography, audio creation and video production as building blocks, students will construct narrative presentations. These narratives will be constructed for multiple distribution methods including: print, epubs, online magazines, and mixed-media forms. Students will also consider possible feedback and interaction methods like blogging and other social media. Students will study storytelling, narrative construction, research and interview techniques, the history of photographic journalism, technical skills and the expanding uses of the image. Students will practice this form while paying attention to the technical, aesthetic, philosophic and ethical issues involved. Prerequisite: VACA 151.
Core: CL
VACA 381 Cinema and Visual Theory (2 SH)
Movies will be the foundation for exploring how these texts, with their narrative and visual formulas, influence culture. Special emphasis will be given to critiques in the areas of gender, race and violence. Select theorists of visual communication will give students a broad theoretical base to continue the exploration of other digital media with their mixture of photograph, kinetic text, sound and time-based media. Students will also explore how these theories and the formal properties of digital media function in their own artistic works.

VACA 382 Contemporary Art (2 SH)
Contemporary Art emphasizes the interpretation of artistic production within its historical, political, social, cultural, and theoretical contexts from recent history to the present. Issues may include: the meaning of originality in art, the relationship of art and mass culture, how the institutional framework for viewing art can influence or determine meaning, the rejection of studio–based art, and art as it confronts the issues of the day.

VACA 384 Art History: World (2 SH)
This course uses a thematic approach to the history and appreciation of art outside the Western mainstream. Art is presented as illustrative, laying the foundation for understanding the context and aesthetics of art from non-Western perspectives. (Fall 2020)
Offered in alternate years

VACA 397 Elementary School Art Methods (2-3 SH)
A study of the aims and philosophy of art education in the elementary school with emphasis on child development through art. Students will experience art techniques and materials suitable for children from Pre-K through grade 6 with emphasis on appropriate motivational and teaching methods. Topics to be covered may include: the role of art in society and in the schools; fundamentals of art; sequential and discipline based art curricula; teaching strategies; art motivation; art integration with the sciences, social studies, and cultural understandings; evaluation; teaching art history, criticism and aesthetics; writing instructional objectives and lesson plans; and teaching art production. For art education majors a 20-hour practicum in the elementary setting is a component of the course. Admission to teacher education may be a prerequisite. A two-credit option without a practicum is available for students who are not pursuing Art Education. (Fall 2021)
Core: CA, CL
Offered in alternate years

VACA 398 Secondary School Art Methods (3 SH)
A study of the aims and philosophy of art education at the secondary school level. Secondary School Art Methods will include advanced studies of curriculum and lesson design and integration; classroom organization and management techniques; delivery of art courses as electives; teaching art history, aesthetics, and evaluation; teaching art production appropriate to the adolescent; and the function of art in the schools and community. Students will understand contemporary issues in art education by examining research history and philosophy of art education. The relationships between developments in education as a whole and art education will be explored as well as adolescent creative learning styles and development. A 20-hour practicum in a secondary art setting is a component of the course. Admission to teacher education may be a prerequisite. (Fall 2020)
Core: CL
Offered in alternate years

VACA 432 Advanced Ceramics I (2 SH)
In Advanced Ceramics 1, students will balance assignments designed to develop technical skills, while developing projects that explore personal style. Research and experimentation from an array of materials and processes such as wheel and hand building methods, unique firing processes, glaze chemistry, and clay body foundation will be used toward formal and conceptual success. In conjunction with increased technical proficiency, students will investigate conceptual, historical, and contemporary art issues to increase professionalism, develop a personal aesthetic, and create artwork that is suitable for exhibition.

VACA 434 Advanced Drawing (2 SH)
Further development of drawing techniques, visual processes and experimental approaches. The capacity to change one's perspective and habits and an openness to taking risks are encouraged. This course is for students who want to explore drawing in its own right, strengthen work in other media through enhanced drawing skills or connect drawing with other arts or disciplines. Advanced investigation into physical, intellectual and emotional aspects of drawing. Content development, individual direction and creative voice are stressed along with further development of drawing skills. Prerequisite: VACA 121 Drawing

VACA 435 Advanced Painting (2 SH)
Further development of techniques and visual strategies using oil and acrylic media. The capacity to change one's perspective and habits and an openness to taking risks are encouraged to understand the various ways artists approach structure and meaning in painting. Advanced investigation into physical, intellectual and emotional aspects of painting. Content development, individual direction and creative voice are stressed along with further development of painting skills. Prerequisite: VACA 222
VACA 442 Advanced Ceramics II (2 SH)
In Advanced Ceramics 2, students will develop a body of work suitable for exhibition. Research and experimentation from an array of materials and processes such as wheel and hand building methods, unique firing processes, glaze chemistry, and clay body foundation will be used toward formal and conceptual success. In conjunction with increased technical proficiency, students will investigate conceptual, historical, and contemporary art issues to increase professionalism and develop a personal aesthetic.

VACA 455 Portfolio and Vocation (4 SH)
This photography class offers the opportunity for students to develop an artistic and vocational vision. Using advanced color and black & white techniques, they will develop a coherent body of work for gallery, book and web display. Students will investigate vocational options related to photography and will create career-based documents such as résumés and cover letters. Prerequisites: VACA 151 and VACA 252. (Fall 2020)
Offered in alternate years

VACA 465 Visual Storytelling: Nonfiction (4 SH)
Students will study how video documentaries are constructed and used to communicate. They will research, design and produce a documentary video on a selected subject. Students will take HUM 200 the semester before this class to do background research for the project. Prerequisite: VACA 262. (Spring 2022)
Core: CL
Offered in alternate years

VACA 466 Visual Storytelling: Fiction (4 SH)
Students will study the narrative structure of video story-telling and the process of narrative video production. They will work at creating a variety of short form narratives and will complete independent projects from pre-production to post-production. Scripts for this class will be created in THR 361 which should be taken the semester prior to this class. Prerequisite: VACA 262. (Spring 2022)
Offered in alternate years

VACA 481 Senior Thesis (2 SH)
This course explore professional practices related to preparation and installation of the major senior exhibit as well as development of a thesis paper. Students take this class in conjunction with a capstone course in their major.

VACA 491 Internship (1-4 SH)
Provides students with an opportunity to integrate theory and practice by working in a professional art/media/design-related environment. Consultation with and reporting to the faculty advisor guide the student's experience. Travel and other expenses are the student's responsibility. Can be done during the summer. Grading is on a Pass/Fail basis. Prerequisite: consent of instructor.
Core: CL

VACA 499 Independent Study (1-4 SH)

WCSC 285 Internship Theory and Practice (1 SH)
Through readings, analytical reflection, journals, and guest speakers, students will explore multiple dimensions of service internships in Washington, DC.
Core: CC, CL, WCSC

WCSC 325 Career and Vocation (2 SH)
This course supports and builds on the WCSC internship experience. Together, students discuss goals and orienting values for their careers and vocational identities, engage with guest speakers who share about their own career trajectories, and build nuts-and-bolts professional development skills, including conducting an informational interview and developing a cover letter and resume. This course is required for all students enrolled in the WCSC summer program.
Core: CC, CL, WCSC

WCSC 380 WCSC Internship (5 SH)
WCSC faculty and staff work with students to place them in community service internships that meet the student's career goals and vocational aspirations. Most WCSC interns are placed in culturally diverse settings with organizations working to address racism, injustice, violence and other social problems. We can place students from any major, including the sciences, the arts, and professional programs. Please refer to our website for recent internship placements: www.emu.edu/wcsc/internships.
**WCSC 385 WCSC Internship (6 SH)**
WCSC faculty and staff work with students to place them in community service internships that meet the student's career goals and vocational aspirations. Most WCSC interns are placed in culturally diverse settings with organizations working to address racism, injustice, violence and other social problems. We can place students from any major, including the sciences, the arts, and professional programs. Please refer to our website for recent internship placements: [www.emu.edu/wcsc/internships](http://www.emu.edu/wcsc/internships).

**WCSC 485 Servant Leadership (2 SH)**
How are leaders made? In these critical times, what kinds of leaders does our society need? How is leadership best practiced? College students, at the cusp of adulthood in American society, stand at many crossroads. Life-altering decisions, vocational choices, questions about how and whom to serve can stimulate or, conversely, inhibit creativity, a willingness to engage in the serious issues of our day, and a commitment to serve others. This course will be taught in tandem with WCSC 285 Internship Theory and Practice and explores the many dimensions of servant leadership, starting first with traditional definitions and moving into frameworks of gender and race before engaging with the great non-violent servant leaders of the twentieth century. Throughout the class we will talk with local servant leaders in the D.C. area. (Will satisfy EMU Core Senior Seminar for students who have earned 90 SH prior to enrollment in WCSC)

**WRIT 110 Preparation for College Writing (3 SH)**
The study and practice of academic modes of written communication accepted in American universities for students whose native language is not English. Through this course, students gain fluency in essay-writing, critical reading skills, improved grammatical accuracy, training in editing and orientation to research tools. This course does not satisfy the EMU Core writing requirement. A grade of C- or better must be achieved in the course as a prerequisite for enrollment in WRIT 120 or 130. Upon completion of the course, instructor evaluation will indicate one of the following: 1) the student must enroll in WRIT 130 to satisfy the writing requirement; 2) the student must enroll in WRIT 120 to achieve proficiency required before enrolling in WRIT 130; 3) the student must re-enroll in WRIT 110.

**WRIT 120 Introductory College Writing (3 SH)**
An introductory writing course focusing on reading and writing assignments in the various discourse communities required in college. Course does not satisfy the writing requirement. A grade of C- or better must be achieved in the course as a prerequisite for enrollment in WRIT 130. Upon successful completion of the course, students will enroll in WRIT 130 College Writing.

**WRIT 130 College Writing (3 SH)**
This first-year course develops academic reading, thinking, and writing skills in various discourse communities while supporting students in their transition to EMU. Includes a research project with particular attention to analysis and synthesis. Students enroll in the appropriate writing course according to placement criteria. Satisfies EMU Core college writing requirement.

**WRIT 140 Advanced College Writing (3 SH)**
Extensive practice in interdisciplinary argument and rhetorical analysis for students who already demonstrate strong reading and writing skills. This workshop-based class helps students develop sophisticated research strategies, evaluate popular and scholarly sources and their arguments, synthesize material to advance knowledge, and communicate effectively in essays, discussions, and an oral presentation. Satisfies EMU Core college writing requirement.

**WRIT 150 Speech: Exploring Voice in Vocation (2 SH)**
This course, ideally taken by students in the spring semester of their first year, invites students to explore their calling within a discipline through engaged listening and speech events. Students will develop voice and audience awareness using appropriate rhetoric and technology. Prerequisite: WRIT 130 or WRIT 140.

**WRIT 160 Public Communication (3 SH)**
This course addresses the principles and practices of effective oral communication. The course emphasizes rhetorical approaches for message design, presentation planning, arrangement, and delivery that are useful across settings. Students will learn to manage cross-cultural communication for effective business and workplace relations. Students will receive feedback from groups and one-on-one. Prerequisite: WRIT 130 or WRIT 140.

*Offered through Lancaster*
WRIT 200 Introduction to Creative Writing (3 SH)
This four-genre course allows students to read, write, workshop and revise flash fiction, memoir, poetry, and dramatic scenes. Team taught or with frequent visits from various writing and literature faculty. Prerequisite: WRIT 130 or its equivalent.
Core: CA, WI

WRIT 210 News and Feature Writing (3 SH)
Workshop for magazine and newspaper writing: generating story ideas; interviewing; observing; fact-checking; researching and drafting news stories, features, book reviews, editorials; and writing for public relations. Prerequisite: WRIT 130 or WRIT 140
Core: WI

WRIT 340 Student Kairos Place (1 SH)
Credit available (but not required) for participation in EMU's Student Kairos Place. Full participation in the event, completion of a significant writing or revision project, and payment of course fee expected. Acceptance to program by faculty recommendation and application only.

WRIT 351 Fiction Writing Workshop (3 SH)
A workshop on the craft of fiction-writing in the short story form. The course focuses in writing process and revision; explores varieties of characterization, setting, plot and structure, point of view, voice, theme, and figurative language. Reading assignments, writing exercises, and extensive short story workshops culminate in polished prose that may be appropriate for publication or graduate school application. Prerequisite: WRIT 130 or WRIT 140. Open to sophomores and above. (Spring 2020)
Core: CA, WI

Offered in alternate years

WRIT 352 Creative Nonfiction Workshop (3 SH)
A workshop on the craft of creative nonfiction writing. The course focuses on the writing process and revision and explores elements of the genre's craft. Reading assignments, writing exercises, and intensive group workshops culminate in a portfolio of polished prose that may be appropriate for publication or graduate school application. Special topics such as Food Writing, Nature Writing, and Spiritual Life Writing may be offered according to student demand. Prerequisite: WRIT 130 or WRIT 140. Open to sophomores and above. (Spring 2021)
Core: CA, WI

Offered in alternate years

WRIT 370 Poetry Workshop (3 SH)
A workshop on the craft of versification. Requirements include writing over sixty poem drafts based on traditional and experimental forms and styles, readings of poetry and prosody, memorization of at least one published poem, and participation on the class discussion board. Prerequisite: WRIT 130 or WRIT 140. (Fall 2020)
Core: CA

Offered in alternate years

WRIT 380 Expository Writing (1 SH)
This five-week course will focus on expository elements in the academic discourse produced by writers in the students' major fields. Students will develop an independent, critical, problem-solving attitude with respect to reading the work of others to assist in the revision of their own writing. Prerequisite: WRIT 130 or WRIT 140. (Spring 2022)
Core: WI

Offered in alternate years

WRIT 381 Argumentative Writing (1 SH)
A five-week, one semester-hour course that equips students to write arguments that are fully developed, rhetorically engaged, and critically thoughtful. Students are expected to contextualize their arguments—to see themselves as agents of change. Prerequisite: WRIT 130 or WRIT 140. (Spring 2022)
Core: WI

Offered in alternate years

WRIT 383 Professional Writing (1 SH)
This five-week course has a practical focus on writing in professional settings. Students will create a portfolio with a cover letter defining their expertise, a resume, and a writing sample specific to the niche in which they want membership. Students will analyze an audience in order to write, edit, and proofread documents that show they understand the audience of a particular profession and can write to a standard required in that profession. Students will become familiar with the ethical issues in professional writing, how to present themselves in writing by creating a positive impression to particular clients, and how to make connections by creating a network via various media. Prerequisite: WRIT 130 or WRIT 140. (Spring 2022)
Core: WI

Offered in alternate years

WRIT 390 Literary Arts Journal: Phoenix (1 SH)
Credit received for serving on the editorial team for the student literary arts journal. Detailed timesheet and reflective paper required. Students may receive 1 SH per semester and may take the course multiple times.

WRIT 391 Editing and Publishing: Weather Vane (1-3 SH)
Credit given for writing, editing, photography, and other production work for the student-run university newspaper. Students are encouraged to have prior school newspaper experience or have taken news writing or photography courses at EMU. Students should enroll for one credit per semester, except in the case of editors serving on the Weather Vane.

WRIT 400 Senior Thesis (3 SH)
Senior writing majors work with a faculty advisor to envision and create a significant work in a single genre. A reflective introduction explores the writer’s developing style and influences. The work may be a chapbook of poems, a collection of short stories, a novella, a full-length play, or a scholarly paper produced in conjunction with a second major (in addition to or as an extended version of that major’s capstone requirements). Seniors may share from their work in an end-of-semester reading, possibly as part of the Writers Read series.

WRIT 421 Advanced Fiction Workshop (3 SH)
Students will write new material to be workshopped, fully participating in peer critique, and working with the professor to read and respond to new material focused on a specialized area of their choice in fiction writing. Workshop pieces should be written within the scope of, or as a response to, this specialized area. In addition, students will write a critical essay about this specialized area, 1200 words, MLA documentation style, placing their own work in the context of their chosen readings and noting how their work responds to the published work in both craft and content. Prerequisite WRIT 351 Fiction Writing Workshop. Meets with WRIT 351. By permission of instructor only. (Spring 2022)

Offered in alternate years

WRIT 422 Advanced Creative Nonfiction Workshop (3 SH)
Students will write new material to be workshopped, fully participating in peer critique, and working with the professor to read and respond to new material focused on a specialized area of their choice in creative nonfiction writing. Workshop pieces should be written within the scope of, or as a response to, this specialized area. In addition, students will write a critical essay about this specialized area, 1200 words, MLA documentation style, placing their own work in the context of their chosen readings and noting how their work responds to the published work in both craft and content. Prerequisite WRIT 352 Creative Nonfiction Workshop. Meets with WRIT 352. By permission of instructor only. (Spring 2021)

Offered in alternate years

WRIT 423 Advanced Poetry Workshop (3 SH)
Students will write new material to be workshopped, fully participating in peer critique, and working with the professor to read and respond to new material focused on a specialized area of their choice in poetry writing. Workshop pieces should be written within the scope of, or as a response to, this specialized area. In addition, students will write a critical essay about this specialized area, 1200 words, MLA documentation style, placing their own work in the context of their chosen readings and noting how their work responds to the published work in both craft and content. Prerequisite WRIT 370 Poetry Writing. Meets with WRIT 370. By permission of instructor only. (Fall 2020)

Offered in alternate years

WRIT 470 Writing Internship (1-3 SH)
The Professional Internship Program is a cooperative endeavor among upper-level students, the community, and the language and literature department. An internship provides an opportunity for students to explore career options and to extend their classroom experiences and learning with both job-related and academic responsibilities. Department approval required one semester in advance. This course is graded on a P/F basis.
Core: CL

WRIT 499 Independent Study (1-3 SH)