



June 2025

## Course Number Change

## Business Admin: Management &amp; Human Rsrcs

BUSMHR

## Spring 2026 Semester

4000 Advanced International BusinessPrevious Number: 3000

U 3

Advanced topics in international business including strategy, alliances, and exchange.

Prereq: 2000, 2292, AcctMIS 2300, BusOBA 2320, and 2321. Not open to students with credit for 4010 or International Business Minor students.

## Public Health: Environmental Health Sciences

PUBHEHS

## Autumn 2025 Semester

6382 Env Hlth Analytical ChemistryPrevious Number: 7382

G 3

The course will emphasize the principles and practices of human exposure sampling and analysis of contaminants in air, water, and soil, as well as analysis of biological specimens (i.e., saliva, urine, exhaled air, blood) for markers of exposure. The course will focus on field sampling, and laboratory analytical instrumentation and methods.

Prereq: Grad standing; or permission of instructor.

## New Course

## Accounting and Management Information Systems

ACCTMIS

## Spring 2026 Semester

5600 Advanced Topics in Accounting

U G 3

Involves advanced study of topics of theoretical and/or empirical research in accounting. Topics vary with instructor and may change from one semester to another. Please contact instructor for a detailed description. Course may be repeated for up to 6 semester credits. If multiple topics courses are taken in fulfillment of a degree requirement, the topics course offerings must be distinct.

Prereq: Enrollment in the undergraduate program or MAcc program; and permission of instructor.

## Anthropology

ANTHROP

## Spring 2026 Semester

5525 Applied Anthropology for Social Change: Research, Justice, and Citizenship

U G 4

This course equips students with practical anthropological research skills to collaboratively address social problems through client- and community-based projects. By integrating themes of citizenship, diversity, and justice, students learn to ethically engage with stakeholders, apply qualitative and quantitative methods, and develop plans to contribute to more equitable and inclusive societies.

Prereq: Jr, Sr or Grad standing; or permission of instructor. GE theme citizenship for div and just wrld course, High-Impact Practice Research and Creative Inquiry.

## Art Education

ARTEDUC

**Autumn 2025 Semester****5677 Contemporary Issues in International Cultural Policy****U G 3**

This course offers a cross-cultural and international perspective on recent debates within the field of cultural policy and seeks to enhance students' global understanding of cultural policy-making processes. Students will discuss a wide range of methodological and analytical issues surrounding international cultural policy.

**Business Admin: Finance****BUSFIN****Autumn 2025 Semester****3242H Valuation, Fintech and Start-Ups****U 3**

In this course students will learn traditional corporate finance techniques, the basics of the Fintech ecosystem and financing and exiting strategies for start-ups. In the first part of the course, students will master core valuation methods, including present value, capital budgeting, and profitability assessment. The second part of the course introduces the fintech ecosystem, exploring technology.

Prereq: Honors standing; enrollment in the IBE-SI track of the IBE program; and permission of instructor.

**Business Admin: Marketing & Logistics****BUSML****Spring 2026 Semester****4225 Applied Strategic Sales****U 3**

This course provides a comprehensive exploration of Value Selling principles and the Executive Buying Formula. By the end of the course, students will be equipped with the skills and knowledge to effectively engage and convert prospects, ensuring successful sales outcomes.

Prereq: 4223 and BusMHR 2292, or equiv. Not open to students with credit for 4220 or 4221.

**Consumer Sciences: Hospitality Management****CSHSPMG****Autumn 2025 Semester****5193 Individual Studies in Consumer Sciences****U G 1 - 4**

Problems in various phases of consumer sciences chosen for individual study under the guidance of a faculty member.

Prereq: Permission of instructor. Repeatable to a maximum of 8 cr hrs or 8 completions. This course is graded S/U. Cross-listed in ConSci.

**Autumn 2025 Semester****7194 Group Studies in Consumer Sciences****G 1 - 4**

Problems in various phases of consumer sciences chosen for group study under the guidance of a faculty member.

Prereq: Grad standing, or permission of instructor. Repeatable to a maximum of 16 cr hrs or 16 completions. Cross-listed in ConSci.

**Autumn 2025 Semester****7991 Research Practicum in Consumer Sciences****G 1 - 4**

Supervised participation in empirical research inclusive of research design selection, and/or data collection, and/or data analysis, and/or manuscript preparation.

Prereq: ConSci 6000 and Grad standing; or permission of instructor. Repeatable to a maximum of 16 cr hrs or 8 completions. Cross-listed in ConSci.

**Autumn 2025 Semester****7992 Teaching Practicum in Consumer Sciences****G 1 - 4**

Supervised participation in college teaching inclusive of pedagogy selection, and/or development of teaching techniques, and/or development of course content, and/or development of assessment pieces, and/or classroom instruction.

Prereq: ConSci 6000, and grad standing; or permission of instructor. Repeatable to a maximum of 16 cr hrs or 8 completions. Cross-listed in 7992.

**Autumn 2025 Semester****8193 Individual Studies in Consumer Sciences****G 1 - 4**

Problems in various phases of consumer sciences chosen for individual study under the guidance of a faculty member.

Prereq: ConSci 6000; and grad standing; or permission of instructor. Repeatable to a maximum of 16 cr hrs or 16 completions. This course is graded S/U. Cross-listed in ConSci.

**Autumn 2025 Semester****8999 Research for Dissertation****G 1 - 12**

Research for dissertation.

Prereq: Grad standing; and permission of instructor. Repeatable to a maximum of 24 cr hrs or 8 completions.

This course is graded S/U. Cross-listed in ConSci.

**Cyber Security and Digital Trust****CYBRSEC****Autumn 2025 Semester****5010 CyberCorps: Preparing to Work in a Governmental Cybersecurity Role****U G 1**

Preparing to work in a governmental cybersecurity position and obtain a security clearance requires not only technical knowledge, but also the discipline, structure, and skills necessary to secure summer internships and a final offer from an agency. This course is required of students receiving the CyberCorps Scholarship and will support them in meeting the demands of their agreement.

Prereq: Permission of instructor. Repeatable to a maximum of 6 cr hrs. This course is progress graded (S/U).

**Environment and Natural Resources****ENR****Spring 2026 Semester****5290 Soil Health****U G 3**

This course provides a detailed overview of the principles/practices that govern soil health, such as organic carbon, and soil physical, chemical, nutrient, and biological attributes that contribute to heightened/degraded soil health, and how these factors support ecosystem services. These concepts will be applied towards management that promotes soil health and soil health quantification tools.

Prereq: 3000 and 3001; or Grad standing.

**Environmental Engineering****ENVENG****Spring 2026 Semester****4090.01 Environmental Engineering Capstone Design: Treatment Plant Design****U 3**

Culminating design course for the Environmental Engineering program.

Prereq: 3200, 3210, CivilEn 2060 and 3160; and GenEd 1201 or GenEd 2601; or permission of instructor.

**Educational Studies: School Psychology****ESSPSY****Autumn 2025 Semester****2000 Becoming Your Best Self through Self-Care: The Glow Up****U 3**

Embark on a transformative journey to your best self with "The Glow Up: Becoming Your Best Self through Self-Care." This dynamic and interactive course is designed to equip students with essential self-care tools and strategies to thrive academically and personally.

**Human Development And Family Science****HDFS**

**Autumn 2025 Semester****2430 Adult Development and Aging****U 3**

This course aims to provide a deeper understanding of adult development and aging through the exploration of the physical, cognitive, and psychosocial processes that occur in adulthood. Spanning across different parts of adulthood, this course considers the utility of theories, methods, and research that offer explanations for specific areas of development.

**History of Art****HISTART****Autumn 2025 Semester****5797 Advanced Study at Foreign Institution****U G 1 - 6**

An opportunity for students to study at a foreign institution and receive Ohio State credit for that work. Students will pay Ohio State fees in excess of Ohio State tuition, as well as all travel and subsistence costs.

Prereq: Permission of department. Repeatable to a maximum of 15 cr hrs or 5 completions.

**Industrial and Systems Engineering****ISE****Spring 2026 Semester****5840.01 Systems Engineering Lifecycle Foundations****U G 3**

This course introduces the essential principles, processes, and practices associated with the application of Systems Engineering tools to the system life-cycle. Emphasis will focus on defining the problem to be solved, establishing the initial system architectures and requirements, design, verification and validation, along with the inter-disciplinary nature of systems.

Prereq: Jr, Sr or Grad standing in the College of Engineering.

**Spring 2026 Semester****5842.01 Model-Based Systems Engineering****U G 3**

This course will provide an understanding of the essential concepts, practices, applications of System Architecture, and how Systems Engineering models can be used to design and deploy a system. The students will be able to apply Model-Based Systems Engineering (MBSE) to model the different types of systems, including: product, service, enterprise and system-of-systems.

Prereq: 5840.01.

**Spring 2026 Semester****5844.01 Systems Requirements Engineering****U G 3**

This course will provide an understanding of the essential concepts, practices, and applications of requirements engineering and analysis used to elicit and model systems requirements. Course includes how to apply requirements engineering and analysis techniques and deliverables to elicit requirements for different types of systems, including: product, service, enterprise, system of systems.

Prereq: Jr, Sr or Grad standing in the College of Engineering.

**Kinesiology: Sport Industry, Sport Management****KNSISM****Autumn 2025 Semester****3218 The Esports Industry****U 3**

An intro to the esports industry, including its history, ecosystem, business models, key stakeholders, and career opportunities. Students explore the evolution of competitive gaming, major tournaments and leagues, revenue generation strategies, and the cultural impact of esports worldwide. The course also examines the challenges such as player contracts, regulation, and the future of the industry.

Prereq: Enrollment in Game Studies and Esports major.

**Autumn 2025 Semester****3411 Esports Analytics****U 3**

Introduction to fundamental concepts of esports analytics, combining principles of data science with esports-specific applications. Students will learn to collect, analyze, and interpret gaming data to enhance team and player performance. Based on the collection, interpretation and application of datasets, students will navigate varying ways in which data can impact a career in Esports.

Prereq: Enrollment in Game Studies and Esports major.

**Autumn 2025 Semester****4255 Esports Event Management****U 3**

This course explores the fundamentals of planning, organizing, and executing esports events, both online and in-person. Students will examine key aspects such as event logistics, tournament structuring, sponsorship, marketing, live production, risk management, and post-event analysis. By the end of the course, students will have hands-on experience in designing and managing an esports event.

Prereq: Enrollment in Game Studies and Esports major.

**Neuroscience Graduate Studies Program****NEUROGS****Autumn 2025 Semester****6193 Neuroscience Graduate Program Research Rotation****G 1 - 12**

Research hours while still determining a lab - pre-candidacy students who have not yet committed to a lab.

Prereq: Permission of instructor. Repeatable to a maximum of 99 cr hrs or 10 completions. This course is graded S/U.

**Autumn 2025 Semester****7600 First Year Student Orientation****G 1**

Orientation for first-year students in NGP and partner graduate programs, lectures on topics important for successful graduate experience, training in presenting scientific work, and training in research ethics.

Cross-listed in Biophys, MCDBio, MolGen, OSBP, and Micrbio. This course is graded S/U.

**Autumn 2025 Semester****8998 NGP Pre-Candidacy Research****G 1 - 12**

Research hours for NGP students pre-candidacy.

Prereq: Permission of instructor. Repeatable to a maximum of 99 cr hrs or 15 completions. This course is graded S/U.

**Autumn 2025 Semester****8999 NGP Post-Candidacy Research****G 1 - 12**

Research hours for NGP students post-candidacy.

Prereq: Permission of instructor. Repeatable to a maximum of 99 cr hrs or 15 completions. This course is graded S/U.

**Nursing****NURSING****Summer 2025 Term****7333 Advanced Pediatric Pharmacology****G 4**

This course provides an in-depth exploration of pharmacologic principles and their application in pediatric primary and acute care settings. Emphasizing evidence-based prescribing practices, this course prepares students to assess, select, and manage pharmacologic therapies across diverse pediatric populations.

Prereq: 7450; and Enrollment in Pediatric Nurse Practitioner Primary or Acute Care specialty. Additional Grad Entry Prereq: pre-licensure coursework (6100, 6240S, 6260, 6270, 6271, 6340, 6410, 6420, 6430, and 6480).

**Autumn 2025 Semester****8105 Health System Pharmacy Finance II****G** 1½

This course covers selected aspects of financial and managerial accounting as it relates to health systems and pharmacy. Learners will be introduced to financial concepts, issues, vocabulary, and tools that are needed by pharmacy leaders in the healthcare industry.

Prereq: 8100 and enrollment in the MS-HSPAL program.

**Autumn 2025 Semester****8135 Application of Advanced Management and Leadership****G** 1½

The purpose of this course is to equip students with skills and resources that will enable them to become effective managers and organizational leaders by igniting or fueling students' passion for leadership development. This course will delve into concepts of organizational behavior, management dilemmas, ethical conundrums, and change management.

Prereq: 8130 and enrollment in the MS-HSPAL program.

**Autumn 2025 Semester****8145 Research Methodology II****G** 1

Apply research and design methodology to resolving health system pharmacy issues. The second course in a two-course series.

Prereq: 8140 and enrolled in MS in Health-Systems Pharmacy; or permission of instructor.

**Autumn 2025 Semester****8205 Operational Assessment of the Pharmacy Enterprise II****G** 1½

The purpose of this course is to equip students with skills and resources that will enable them to effectively assess and improve the operations of a pharmacy enterprise. Through an approach of simulation, readings and recorded lectures, students will learn and apply the tools necessary to determine efficiency and effectiveness of pharmacy systems.

Prereq: 8200 and enrollment in the MS-HSPAL program.

**Autumn 2025 Semester****8500 Health System Pharmacy Administration and Leadership - Capstone****G** 2

This course serves as the capstone for the MS-HSPAL program and builds on skills learned in all courses with PHR 8160 and PHR 8170 as required prerequisites. By using various online teaching strategies, this course will prepare students for any applicable experiential training as part of their PGY1/PGY2 residency or job responsibilities as a working professional.

Prereq: 8160 and 8170; and Enrollment in the MS-HSPAL program.

## Physics

## PHYSICS

**Autumn 2025 Semester****1125 Practicing Physics - Matter, Heat, and Motion****U** 4

Students work in groups to perform hands-on investigations on density, motion, and thermodynamics and develop models to describe and explain their observations. Through discussions with instructors and peers, students consider the effects of science in society and apply their scientific skills to everyday situations.

Intended for non-science majors, especially those contemplating a teaching career.

Prereq: Not open to students with credit for 1106. GE foundation natural sci course.

## Public Affairs, John Glenn College

## PUBAFRS

**Autumn 2025 Semester****5542 Veteran Career Advancement in Public Service****U G** 1

This is the final of three professional development courses geared toward military-connected populations, particularly military veterans. This course can also be taken as a stand-alone course. Class time will consist of discussions and presentations to prepare for success in the civilian workforce. Assignments will include readings, papers, and creating a career development plan.

## Public Health: Health Services Management &amp; Policy

## PUBHHMP

**Autumn 2025 Semester****6635 The US Mental Health Delivery and Financing System****G 3**

This course is designed to provide students with an understanding of the significant issues and trends in behavioral health delivery systems in America. This graduate course covers the organization, financing, and delivery of behavioral health (including mental health and substance abuse) services in the United States and offers a detailed overview of the US mental health delivery system.

Prereq: grad standing; or permission of instructor.

**Sociology****SOCIOL****Autumn 2025 Semester****4615S Control and Prevention of Crime and Delinquency****U 3**

Analysis of the operational effectiveness of special measures and programs pointed toward the control and prevention of crime and delinquency. This course includes a service-learning component.

Prereq: Jr or Sr standing; or permission of instructor or department. Not open to students with credit for 4615.

**Place in Limbo****Aerospace Engineering****AEROENG****Summer 2025 Term****5616 Advanced Flight Vehicle Design****U G 3**

The course introduces advanced flight vehicle design techniques applied during the conceptual design phase. The optimum design process and problem formulation is introduced, with an in-depth focus on multivariate graphical optimization techniques for aircraft. We will conduct optimal design based on first principles, and apply best practices to multidisciplinary flight vehicle design.

Prereq or concur: 4550, and 4515 or 4517; or Grad standing in AeroEng; or permission of instructor.

**Autumn 2025 Semester****6645.01 Introduction to Structural Dynamics and Aeroelasticity of Aerospace Vehicles****G 4**

Fundamental Concepts of Structural Dynamics, Unsteady Aerodynamics, and Aeroelasticity of Aerospace Vehicles.

Prereq: Grad standing, or permission of instructor. Not open to students in the PMAPE-MAA program. Not open to students with credit for 6645.02.

**Summer 2025 Term****7774 Aeroacoustics****G 3**

Fundamental concepts of classical acoustics; physical mechanisms associated with aerodynamic noise generation; computational aeroacoustic methods.

Prereq: 5615 (615) or equiv.

**Summer 2025 Term****8830 Random Dynamical Systems****G 3**

Elements of axiomatic theory of probability, measure theory, stochastic differential equations, and martingales. Study of tools, e.g., sequential Monte Carlo, stochastic linearization, moment closure, Fokker-Planck equations, parameter estimation.

Prereq: ECE 6001, or Grad standing in Mechanical or Aerospace Engineering, or permission of instructor.

**Anatomy****ANATOMY**

**Summer 2025 Term****1300 SuperAnatomy****U 3**

Today's pop culture includes icons from movies, television shows, and comics superheroes (including metahumans, aliens, & humans with advanced technology). The SuperAnatomy course is a 3-credit hour course that teaches basic systemic human anatomy and physiology with the help of superheroes. Lectures introduce normal human anatomy and physiology, compares superhero powers & modern technology.

**Animal Sciences****ANIMSCI****Summer 2025 Term****2401 Advanced Equine Behavior and Training****U 3**

Utilizes principles of equine behavior and advanced training techniques to safely and effectively modify desirable and undesirable behavior of assigned horses.

Prereq: Permission of instructor. Must have medical insurance. Maximum of 3 credits between 2301 and 2401 may count in the AnimSci major. Repeatable to a maximum of 6 cr hrs.

**Summer 2025 Term****3700 Animal Research Methods Laboratory****U 2**

Exploring research techniques associated with food animal tissues such as quantifying, separating and identifying proteins, fatty acids and carbohydrates.

Prereq: 3140 (310), 3140H (310H), or MeatSci 3110 (AnimSci 355.01), or permission of instructor.

**Summer 2025 Term****4400 Animal Welfare and Behavior in Livestock Industries****U 3**

The study of animal welfare and behavior and resulting influences on livestock production systems.

Prereq: 3140 (310) or 3140H (310H), or permission of instructor.

**Summer 2025 Term****5000 Human Dimension in Animal Sciences****U G 3**

Examines how humans have and continue to influence the field of Animal Sciences. Students will gain a perspective on both individual and societal actions and reactions to aspects of animal production for human consumption. Topics will include, but will not be limited to: attitudes, beliefs, values, and value orientations.

**Summer 2025 Term****5400 Southern African Animals****U G 3**

This course examines animals native to Southern Africa. Students will examine animal anatomy and physiology, interpret behavior, and analyze the positive and negative human-animal interactions taking place in the geographic region, as well as the effects these interactions have on both humans and animals.

**Animal Sciences Technology****ANMLTEC****Summer 2025 Term****2811T Schooling and Training the Riding Horse****U 3**

Applied techniques of schooling and training riding horses with emphasis on producing supple, willing and knowledgeable mounts.

Prereq: 2201T (211T), 2801T (267T), permission of instructor. Concur: 2189.01T or 2190.01T. Not open to students with credit for 268.01T.

**Architecture****ARCH**



**Summer 2025 Term****1100 Architecture Survey****U 1**

Introduction to the University, the Knowlton School of Architecture, and the disciplines of architecture, landscape architecture, and city and regional planning.

Prereq: Not open to students with credit for 1100E, 100, 100H, CRPlan 1100 (100), 1100E, LArch 1100 (100), 1100E, or any survey course. Cross-listed in LArch and CRPlan.

**Summer 2025 Term****2300E Outlines of the Built Environment****U 3**

Introduction to the discipline of architecture and landscape architecture and planning with an emphasis on the physical artifact and its formal and cultural context. Honors section.

Prereq: Honors standing. Not open to students with credit for 200, 1210, 2300, LArch 1210 (200), 2300, or 2300E. GE cultures and ideas course. Cross-listed in LArch.

**Summer 2025 Term****2310 Seeing and Making****U 4**

Introduction to the design of the physical environment through direct experience and practices of making, including urban walks, drawing and physical model making.

Prereq: Not open to students with credit for 1410, LArch 1410, or LArch 2310. Cross-listed in LArch.

**Astronomy****ASTRON****Summer 2025 Term****1144 Stars, Galaxies, and the Universe****U 3**

Structure, motions, and evolution of stars, interstellar material, galaxies, and the universe as a whole. Not recommended for students who plan to continue in astronomy or physics.

Prereq: ACT Math Subscore of 22 or higher, or Math Placement Level R or better, or Math 1050 (075), 102, or permission of instructor. Not open to students with credit for 2292 (292), 1162 (162), 1162H (162H), or 172. This course is available for EM credit. GE nat sci phys course. NS Admis Cond course.

**Athletic Training****ATHTRNG****Summer 2025 Term****2000 Basic Athletic Training****U 3**

Introduction to profession of Athletic Training, its governing organizations and basic knowledge and skills in prevention, recognition, management and rehabilitation of injuries and illnesses.

Prereq: Enrolled in School of Health and Rehabilitation Sciences, or permission of instructor. Not open to students with credit for 303. Admis Cond course.

**Atmospheric Sciences****ATMOSSC****Summer 2025 Term****4191 Internship in Atmospheric Sciences****U 1 - 6**

An opportunity for practical experience and on-the-job learning in an atmospheric sciences related work place.

Prereq: 12 cr hrs in major program, and permission of instructor. Repeatable to a maximum of 15 cr hrs or 5 completions. This course is graded S/U.

**Biochemistry****BIOCHEM****Summer 2025 Term****5701 DNA Transactions and Gene Regulation****U G 3**

Understanding mechanisms of DNA replication, DNA repair and recombination, transcription, translation, regulation of gene expression, and the experimental approaches to these topics.

Prereq: 4511 or equiv., and MolGen 4500 or 5606; and Sr or Grad standing, or permission of instructor. Not open to students with credit for MolGen 5701. Cross-listed in MolGen.

**Summer 2025 Term****6765.01 Advanced Biochemistry: Physical Biochemistry****G 1½**

An advanced treatment of physical biochemistry including topics in spectroscopy.

Prereq: 5615 (615), Chem 2520 (253), 2550 (255), and 4210 (521), or equiv; or permission of instructor. Not open to students with credit for 6765.02 (765), Chem 765, or MolBioch 765.

**Bioethics****BIOETHC****Summer 2025 Term****7040 Bioethics and the Holocaust****G 3**

This course is designed to allow students an in-depth study of one of the most troubling periods in the history of medicine the active participation of physicians in the Holocaust. We will attempt to understand the distorted rational behind this genocide by ordinary men and women. We will also discuss, in depth, analogies to today's medical practice.

**Biology****BIOLOGY****Summer 2025 Term****1131 Peer Led Team Learning for Biology 1113 Students****U 1**

Peer-led team learning (PLTL) provides a structure within which students will actively work together in groups to complete a series of activities and deepen their understanding of concepts associated with Biology 1113. A peer leader will work with the group on challenging and relevant activities to prepare biology students to apply scientific reasoning to authentic problems.

Concur: Biology 1113. This course is graded S/U.

**Summer 2025 Term****1141 Peer Led Team Learning for Biology 1114 Students****U 1**

Peer-led team learning (PLTL) provides a structure within which students will actively work together in groups to complete a series of activities and deepen their understanding of concepts associated with Biology 1114. A peer leader will work with the group on challenging and relevant activities to prepare biology students to apply scientific reasoning to authentic problems.

Concur: 1114. This course is graded S/U.

**Biological Chemistry and Pharmacology****BIOPHRM****Summer 2025 Term****5800 Stem Cell Biology and Applications for Human Regenerative Medicine****U G M 3**

Basics of stem cell biology, as applied to multiple disease models of the brain and other organs, cancer research and aging. Practical examples and models from patients with neurodevelopmental and neurodegenerative diseases. Demonstration of laboratory strategies and techniques will be presented.

Prereq: One year of basic biology, or permission of instructor.

**Summer 2025 Term****5852 Biology of Aging****U G 2**

Covers molecular, cellular and organismal aspects of aging. Experimental evidence as well as current and historically important theories of aging will be discussed. The course will rely on analysis of original peer-reviewed publications.

Prereq: Not open to students with credit for 5852 (852). CT Admis Cond course.

**Biomedical Informatics****BMI**

**Summer 2025 Term****7600 Metabolomics, Principles and Practice****G 3**

Introduces students to the principles and practice of metabolomics. Metabolomics is the study of the totality of small molecules existing within a system. We will focus here on the application of metabolomics to plant, food, nutrition and health-related research, although concepts are applicable to other disciplines.

Prereq: Permission of instructor. Cross-listed in FdScTe, HCS, and HumnNtr.

**Summer 2025 Term****8040.01 Special Topics in BMI: Clinical and Translational Informatics****G 1 - 5**

This is an advanced discussion-based seminar exploring new methods, technologies, and research in clinical and translational informatics.

Prereq: Grad standing in a master, doctoral, or professional program; and permission of the instructor.

Repeatable to a maximum of 27 ch hrs or 9 completions.

**Summer 2025 Term****8050.01 Special Topics in BMI: Data Science****G 1 - 5**

This is an advanced discussion-based seminar exploring new methods, technologies, and research in biomedical data analytics and data science.

Prereq: Graduate standing in a master, doctoral, or professional program; and permission of the instructor.

Repeatable to a maximum of 27 cr hrs or 9 completions.

**Summer 2025 Term****8130 Analysis and Applications of Genome-Scale Data****G 3**

This course introduces trainees to the fundamental algorithms needed to understand and analyze genome-scale expression data sets. The course will cover three major kinds of applications: Class Comparison, Class Discovery, and Class Prediction. We will also discuss methods for cross-validation and independent validation of predictive models. R software environment will be introduced and utilized.

**Summer 2025 Term****8140 Measuring patient experience and preferences****G 3**

This course will cover theory and concepts of empirical tools to describe disease burden, health state utilities, patient reported outcomes, patient experience, and patient preferences, important policy contexts that govern the study of patient preferences (e.g. regulatory, pricing/reimbursement) and good research practice documents that guide empirical studies of the patient experience.

**Summer 2025 Term****8150 Rigorous and Reproducible Design and Data Analysis****G 3**

Students will learn to: computationally analyze datasets using best practices in experimental design and analysis; use the R language to analyze datasets from transcriptome, genome, and clinical studies; use examples from experimental design literature that are rigorous and with built-in flaws; identify sources of bias and the impact these have on results/conclusions.

This course is graded S/U.

**Biomedical Sciences Graduate Program****BSGP****Summer 2025 Term****6700 Patient-Centered Research****G 2**

Lectures and small group discussions will cover an introduction to humanistic aspects of medical research and human experimentation, including historical, socio-political, economic, and ethical aspects.

Prereq: Enrollment in College of Medicine, and permission of instructor. Repeatable to a maximum of 8 cr hrs.

This course is progress graded (S/U).

**Summer 2025 Term****8800.02 Signature Program Translational Science Curriculum "Infection & Host/Pathogen Science"****G 2**

Translational Science to understand inflammatory diseases, viral diseases, cancer, and wound healing.

Prereq: Enrollment in MD or DO program, or permission of instructor. Cross-listed in IntMed.

**Summer 2025 Term****2250T Fundamentals of International Business****U 3**

An overview of international business including the environment, strategies, issues, decisions, and challenges that global businesses encounter.

Prereq: 1151T or AEDEcon 2001. This course is available for EM credit.

**Chemistry****CHEM****Summer 2025 Term****1205 Foundations of General Chemistry****U 2**

Chemistry 1205 is a preparatory course for under-prepared students previously enrolled in Chemistry 1210/1610. Chemistry 1205 will prepare students to continue on and complete Chemistry 1210/1610 in a subsequent semester. The textbook for Chem 1205 will be the same textbook used in Chem 1210/1610.

Prereq: Failed or withdrew from Chem 1210 or 1610, or Math 1075 or Math placement N. Prereq or concur: Math 1120.

**Chinese****CHINESE****Summer 2025 Term****1101.51 Level One Chinese I: Individualized Track****U 1 - 4**

Mandarin Chinese spoken communication and writing system. Individualized Track. Progress is sequential from one cr hr to the next with a demonstrated proficiency at the level of 80% required for advancement. Closed to native speakers of this language, or to students with 3 or more years of study in this language in high school.

Au, Sp, Su Sem. Prereq: Not open to students with credit for 101 and 102. Repeatable to a maximum of 4 cr hrs or 4 completions. This course is available for EM credit. GE for lang course. GE world languages course.

**Summer 2025 Term****1102.51 Level One Chinese II: Individualized Track****U 1 - 4**

Continuation of 1101.51. Individualized Track. Progress is sequential from one cr hr to the next with a demonstrated proficiency at the level of 80% required for advancement. Closed to native speakers of this language, or to students with 3 or more years of study in this language in high school.

Prereq: 1101.01 or 1101.02, or 4 cr hrs of 1101.51, or permission of instructor. Not open to students with credit for 1102 (102). Repeatable to a maximum of 4 cr hrs or 4 completions. This course is available for EM credit. GE for lang course. GE world languages course. FL Admis Cond course.

**Summer 2025 Term****1103.51 Level Two Chinese I: Individualized Track****U 1 - 4**

Mandarin Chinese second level spoken communication, development of reading skills, and written composition. Individualized Track. Progress is sequential from one cr hr to the next with a demonstrated proficiency at the level of 80% required for advancement. Closed to native speakers of this language, or to students with 3 or more years of study in this language in high school.

Prereq: 1102.01 or 1102.02, or 4 cr hrs of 1102.51, or permission of instructor. Not open to students with credit for 1103 or 104. Repeatable to a maximum of 4 cr hrs or 4 completions. This course is available for EM credit. GE for lang course. GE world languages course. FL Admis Cond course.

**Summer 2025 Term****2102 Level Two Chinese II: Classroom Track****U 5**

Continuation of 1103. Closed to native speakers of this language, or to students with 3 or more years of study in this language in high school.

Sp Sem. Prereq: 1103. Not open to students with credit for 2102 (205 and 206). This course is available for EM credit. FL Admis Cond course.

### Summer 2025 Term

#### **2141.02 Intensive Level Two Chinese-Oral: Summer Intensive Track**

**U 4**

First course in the sequence of intensive intermediate Chinese language courses focusing on speaking and listening. Admission to SPEAC is required for registration. Students must complete 4 credits during first 3.5 weeks of the summer session. Closed to native speakers of this language, or to students with 3 or more years of study in this language in high school.

Prereq: 1102.01, or 1102.02, or 4 cr hrs for 1102.51, or permission of instructor, or Chinese Placement Level 6. Not open to students with credit for 1103, or 2141.01. This course is available for EM credit. GE for lang course. GE world languages course.

### Summer 2025 Term

#### **2151.51 Intensive Level Two Chinese-Written: Individualized Track**

**U 1 - 5**

First in the sequence of intensive intermediate Chinese language courses focusing on written Chinese. Individualized track. Progress is sequential from one cr hr to the next with a demonstrated proficiency at the level of 80% required for advancement. Closed to native speakers of this language, or to students with 3 or more years of study in this language in high school.

Au, Sp, Su. Prereq: 1102.01 or 1102.02, or 4 cr hrs for 1102.51, or permission of instructor. Not open to students with credit for 1103 (211) or 2151 (311). Repeatable to a maximum of 5 cr hrs or 5 completions. This course is available for EM credit. FL Admis Cond course.

### Summer 2025 Term

#### **4101 Level Three Chinese I**

**U 5**

Continued study of spoken communication, reading Chinese publications, and development of written composition.

Au Sem. Prereq: 2102, or permission of instructor. Not open to students with credit for 507 or 508. This course is available for EM credit. FL Admis Cond course.

### Summer 2025 Term

#### **4102 Level Three Chinese II**

**U 5**

Continuation of 4101.

Sp Sem. Prereq: 4101, or permission of instructor. Not open to students with credit for 508 or 509. This course is available for EM credit. FL Admis Cond course.

### Summer 2025 Term

#### **4142.02 Intensive Level Three Chinese-Oral: Summer Intensive Track**

**U 5**

Continuation of 2141.02. Summer Intensive Track. Admission to SPEAC is required for registration. Students must complete 5 credits during the second 3.5 weeks of the Summer Session.

Prereq: 2141.01 or 2141.02, or permission of instructor. This course is available for EM credit.

### Summer 2025 Term

#### **4152.51 Intensive Level Three Chinese-Written: Individualized Track**

**U 1 - 5**

Continuation of 2151.51. Progress is sequential from one cr hr to the next with a demonstrated proficiency at the level of 80% required for advancement.

Au, Sp, Su Sems. Prereq: 2151.01, or 4 cr hrs for 2151.51, or permission of instructor. Not open to students with credit for 311 or 511. Repeatable to a maximum of 5 cr hrs or 5 completions. This course is available for EM credit. FL Admis Cond course.

### Summer 2025 Term

#### **5101.51 Level Four Chinese I: Individualized Track**

**U G 1 - 3**

Level Four Chinese; continuation of 4102, or 4142 and 4152. Individualized Track. Progress is sequential from one cr hr to the next with a demonstrated proficiency at the level of 80% required for advancement.

Prereq: 4152.01; and 4102 or 4142.01 or 4142.02 or 4 cr hrs for 4152.51, or written permission of instructor. Not open to students with credit for 610 or 611.51. Repeatable to a maximum of 3 cr hrs or 3 completions. This course is available for EM credit. FL Admis Cond course.

**Summer 2025 Term****5102.01 Level Four Chinese II: Classroom Track****U G 3**

Level Four Chinese: continuation of 5101.01.

Sp Sem. Prereq: 5101.01, or 3 cr hrs for 5101.51, or permission of instructor. Not open to students with credit for 611 or 612.01. This course is available for EM credit. FL Admis Cond course.

**Summer 2025 Term****5102.51 Level Four Chinese II: Individualized Track****U G 1 - 3**

Level Four Chinese: continuation of 5101.51. Progress is sequential from one cr hr to the next with a demonstrated proficiency at the level of 80% required for advancement.

Au, Sp, Su Sems. Prereq: 5101.01, or 3 cr hrs for 5101.51, or permission of instructor. Not open to students with credit for 611 and 612. Repeatable to a maximum of 3 cr hrs or 3 completions. This course is available for EM credit. FL Admis Cond course.

**Summer 2025 Term****5104 Level Five Chinese II****U G 3**

Level five Chinese second semester. Completing the novel and TV series "Spring Grass"; focus on written composition skills. Chinese only. Completion of this class (or equivalent) required for taking master's level Chinese language classes.

Prereq: 5103 or equiv. This course is available for EM credit.

**Summer 2025 Term****5105.51 Selected Readings in Scholarly Chinese Texts I: Individualized Track****U G 1 - 3**

Academic writings by modern Chinese scholars in both Wenyan and Baihua styles.

Prereq: 5102.01 or 5102.51, or permission of instructor. Repeatable to a maximum of 9 cr hrs or 4 completions.

**Summer 2025 Term****5106.51 Selected Readings in Scholarly Chinese Texts II: Individualized Track****U G 1 - 3**

Continuation of 5105.01 or 5105.51. Academic writings by modern Chinese scholars in both Wenyan and Baihua styles.

Prereq: 5105.01 or 5105.51, or permission of instructor. Repeatable to a maximum of 9 cr hrs or 4 completions.

**Summer 2025 Term****7384 Chinese Syntax****G 3**

The syntactic structure of modern (Mandarin) Chinese; related topics such as syntax-semantics interface.

Prereq: 6380; or permission of instructor.

**Summer 2025 Term****7463 Modern Chinese Fiction****G 3**

Introduction to the history of Chinese fiction from the late Qing to 1949.

Prereq: 6451, 6452; or permission of instructor. Not open to students with credit for 763.

**Summer 2025 Term****7466 Lu Xun****G 3**

Readings in the essays, prose poetry, and fiction of Lu Xun.

Prereq: 7463; or permission of instructor.

**Summer 2025 Term****7467 Taiwan Literature****G 3**

Introduction to the literature of Taiwan from 1900 to the present.

Prereq: 6451, 6452, 7463; or permission of instructor.

**Summer 2025 Term****8471 Traditional Chinese Poetry****G 3**

Lectures and readings from ancient odes and songs and the later shi and ci poetry.

Prereq: 6451, or 6452, or permission of instructor. Not open to students with credit for 871.

**Civil Engineering****CIVILEN****Summer 2025 Term****2810 Construction Engineering and Management: An Introduction****U 3**

Basic engineering and management concepts of construction operations of various foundations, concrete, and steel buildings and bridges.

Prereq: Enrollment in CivilEn major. Not open to students with credit for 682.

**Summer 2025 Term****4800 Project Management in Civil Engineering****U 3**

Comprehensive guide to project management methods, tools, and techniques.

Prereq: Jr standing, and enrollment in CivilEn major.

**Summer 2025 Term****5810 Construction Safety and Forensics****U G 3**

Practical aspects of identifying construction and structural problems, construction accidents, mechanisms of failures and accidents, methods of avoidance and forensic engineering.

Prereq: 2810 (682), or permission of instructor. Not open to students with credit for both 683 and 688.

**Summer 2025 Term****5820 Construction Estimating****U G 3**

Practical aspect in estimating real construction projects encompassing highway, foundation, buildings, and bridges.

Prereq: 2810 (682), or permission of instructor. Not open to students with credit for 685.

**Summer 2025 Term****5830 Construction Scheduling****U G 3**

Practical aspects in identifying construction activities and their relations, establishing visual representation of a project schedule, and computing the completion date of the project.

Prereq: 2810 (682), or permission of instructor. Not open to students with credit for 684.

**Summer 2025 Term****7760 Transportation Management Systems****G 3**

Concepts and methods for the management of unscheduled and scheduled urban transportation systems. Emphasizes network performance and travel demand interactions, and real-time applications.

Prereq: Grad standing, or permission of instructor. Not open to students with credit for 878.

**Summer 2025 Term****7770 Infrastructure Systems Analysis****G 3**

Presents a systems approach to infrastructure provision and management with a focus on the uncertainty inherent to large-scale and long-lived facilities.

Prereq: Grad standing, or permission of instructor. Not open to students with credit for 777.

**Summer 2025 Term****7790 Transportation Practicum****G 4**

Practical experience and perspective on practice of transportation engineering and planning.

Prereq: Grad standing in CivilEn and CRPlan Dual M.S. Degree Program, and permission of instructor. Not open to students with credit for 990. This course is graded S/U.

## Classics

CLAS

### Summer 2025 Term

**4201 Political Thought and Institutions in the Greco-Roman World**  
**U 3**

Selected topics concerning the development of ancient political theory.  
Prereq: Not open to students with credit for Classics 505.

## Comparative Studies

COMPSTD

### Summer 2025 Term

**3661 The City and Culture**  
**U 3**

Introduction to the comparative and cross-cultural study of cities, urban culture, and urbanism.  
Prereq: One course in CompStd or IntStd, or permission of instructor. Not open to students with credit for 4661 (531) or IntStd 4661 (531) or IntStd 3661. Cross-listed in IntStd.

### Summer 2025 Term

**6200 Critical Foundations: Interdisciplinarity & Methods**  
**G 3**

This course introduces interdisciplinarity as an approach to knowledge production that is problem and question driven and that therefore draws from varied approaches and methodologies. It considers a range of tools that scholars across humanities and social sciences disciplines use to critically analyze the pressing global issues.

## Consumer Sciences

CONSCI

### Summer 2025 Term

**8891 Special Topic Seminar: Family Finance**  
**G 3**

Survey of literature on specific family finance topics with emphasis on identifying research problems, assessing significance, reviewing literature, conducting research, and preparing professional presentations.  
Prereq: 6000 (700), and Grad standing; or permission of instructor. Repeatable to a maximum of 6 cr hrs.

## City and Regional Planning

CRPLAN

### Summer 2025 Term

**1100 CRP Survey**  
**U 1**

Introduction to the University, the Knowlton School of Architecture and the professions of architecture, city and regional planning, and landscape architecture.  
Prereq: Not open to students with credit for 1100, 100, Arch 1100 (100), 1100E, 100H, LArch 1100 (100), 1100E, or any survey course. Cross-listed in Arch and LArch.

### Summer 2025 Term

**4191S Planning Internship**  
**U 1**

Internship seminar providing students with an opportunity to reflect and learn about career opportunities in city and regional planning.  
Prereq: Permission of instructor. Repeatable to a maximum of 2 cr hrs. This course is graded S/U.

### Summer 2025 Term

**5010 Historic Preservation Planning**  
**U G 3**

Cities are rich in history. Policies, incentives and planning aid in preserving unique historic character and heritage of cities.

### Summer 2025 Term

**5700 Urban Transportation Demand Forecasting**  
**U G 3**

Introduction and applications for quantitative demand forecasting in urban transportation.  
Prereq: Math 1118 or equiv, or Grad standing. Not open to students with credit for 775 or CivilEn 5700 (775). Cross-listed in CivilEn.



**Summer 2025 Term****6100 Participation and Advocacy in Planning****G 3**

Planning theories that support the planner's role in engaging and advocating for the public. Skills in public engagement techniques and tools.

Prereq: Grad standing, or permission of instructor. Not open to students with credit for 712.

**Summer 2025 Term****6425 Measuring Resilience to Disasters for Planning****G 3**

This course focuses on concepts, elements, theory, and applications for resilience to disasters in urban and regional planning. Students will develop quantitative analytical skills in resilience assessment through various methods, including resilience indicators, cost-benefit analysis, econometric analysis, and simulation analysis.

Prereq: Grad standing, or permission of instructor.

**Summer 2025 Term****6430 Urban Design****G 3**

Vibrant cities contribute to quality of life, through urban design and urban form. Site analysis, context sensitive design and impacts of design choices are explored.

Prereq: Grad standing, or permission of the instructor. Not open to students with credit for 731.

**Summer 2025 Term****6460 Real Estate Finance for Planners****G 3**

Realize plans by understanding the financial mechanisms to fund projects. Explore how public-private partnerships create opportunities for affordable housing, downtown revitalization, and neighborhood improvement.

Prereq: Grad standing, or permission of instructor. Cross-listed in PubAfrs.

**Summer 2025 Term****6750 Resolving Social Conflict****G 3**

Multidisciplinary examination of social conflict, its dynamics and negotiated and consensual resolution; offers broad-based framework for diagnosing and managing conflict; applied to legal, environmental, organizational, and geopolitical conflicts.

Prereq: Grad standing, or permission of instructor.

**Summer 2025 Term****7509 Disasters: Preparedness and Response****G 3**

Introduction to planning, policy, and management issues that arise when disaster strikes, and the roles of government, non-profits, communities, and individuals in emergency preparedness by examining a variety of recent natural and human-made disasters, both in the U.S. and abroad.

Cross-listed in PubAfrs.

**Computer Science and Engineering****CSE****Summer 2025 Term****5329 Intermediate Studies in Computation Theory****U G 2 - 3**

Intermediate-level topics in computation theory.

Repeatable to a maximum of 12 cr hrs or 6 completions.

**Summer 2025 Term****5339 Intermediate Studies in Algorithms****U G 2 - 3**

Intermediate-level topics in algorithms.

Repeatable to a maximum of 12 cr hrs or 6 completions.

### Summer 2025 Term

#### **5349 Intermediate Studies in Programming Languages**

**U G 2 - 3**

Intermediate-level topics in programming languages.  
Repeatable to a maximum of 12 cr hrs or 6 completions.

### Summer 2025 Term

#### **5359 Intermediate Studies in Cryptography**

**U G 2 - 3**

Intermediate-level topics in cryptography.  
Repeatable to a maximum of 12 cr hrs or 6 completions.

### Summer 2025 Term

#### **5439 Intermediate Studies in Operating Systems**

**U G 2 - 3**

Intermediate-level topics in operating systems.  
Repeatable to a maximum of 12 cr hrs or 6 completions.

### Summer 2025 Term

#### **5522 Survey of Artificial Intelligence II: Advanced Techniques**

**U G 3**

Survey of advanced concepts, techniques, and applications of artificial intelligence, including knowledge representation, learning, natural language understanding, and vision.  
Prereq: 3521 or 5521, and enrollment in CSE, CIS, ECE, or Data Analytics major; or Grad standing.

### Autumn 2025 Semester

#### **5913 Capstone Design: Computer Animation**

**U G 4**

Capstone design project: conceptual and technical design and implementation of computer animation incorporating animation elements; teamwork, written and oral communication skills.  
Prereq: 3541 or 5541; and 2501, Philos 1338, or 2338; and CSE 3901, 3902, or 3903; and GenEd 1201 or 2601; and GE writing and comm course: level 2 or GE foundation writing and info literacy course; or Grad standing.

### Summer 2025 Term

#### **6239 Advanced Studies in Software Engineering**

**G 1 - 3**

Advanced-level topics in software engineering.  
Repeatable to a maximum of 24 cr hrs or 8 completions. This course is graded S/U.

**Summer 2025 Term****6329      Advanced Studies in Computation Theory****G            1 - 3**

Advanced-level topics in computation theory.

Repeatable to a maximum of 24 cr hrs or 8 completions. This course is graded S/U.

**Summer 2025 Term****6332      Advanced Algorithms****G            3**

Advanced graph algorithms, string algorithms, linear programming, matrix operations, Fourier transforms, randomized algorithms, approximation algorithms, geometric algorithms.

Prereq: 6331 (780). Not open to students with credit for 790 or 794A.

**Summer 2025 Term****6339      Advanced Studies in Algorithms****G            1 - 3**

Advanced-level topics in algorithms.

Repeatable to a maximum of 24 cr hrs or 8 completions. This course is graded S/U.

**Summer 2025 Term****6349      Advanced Studies in Programming Languages****G            1 - 3**

Advanced-level topics in programming languages.

Repeatable to a maximum of 24 cr hrs or 8 completions. This course is graded S/U.

**Summer 2025 Term****6359      Advanced Studies in Cryptography****G            1 - 3**

Advanced-level topics in cryptography.

Repeatable to a maximum of 24 cr hrs or 8 completions. This course is graded S/U.

**Summer 2025 Term****6439      Advanced Studies in Operating Systems****G            1 - 3**

Advanced-level topics in operating systems.

Repeatable to a maximum of 24 cr hrs or 8 completions. This course is graded S/U.

**Summer 2025 Term****6441      Parallel Computing****G            3**

Principles and practice of parallel computing; design, implementation, and performance evaluation of parallel programs for shared-memory, distributed-memory and heterogeneous parallel systems.

Prereq: 5441 (621). Not open to students with credit for 721.

**Summer 2025 Term****6449      Advanced Studies in Parallel Computing****G            1 - 3**

Advanced-level topics in parallel computing.

Repeatable to a maximum of 24 cr hrs or 8 completions. This course is graded S/U.

**Summer 2025 Term****6479      Advanced Studies in Computer Security****G            1 - 3**

Advanced-level topics in computer security.

Repeatable to a maximum of 24 cr hrs or 8 completions. This course is graded S/U.

**Consumer Sciences: Hospitality Management****CSHSPMG****Summer 2025 Term****2200      Introduction to Healthcare Environmental and Hospitality Services****U            3**

An application and discussion of healthcare business and analysis of critical healthcare areas in relation to hospitality business.

**Summer 2025 Term****4200 Managing the Customer Experience in Healthcare and Hospitality Services****U 3**

An application and discussion of hospitality principles and customer experience management in the healthcare industry.

**Dance****DANCE****Summer 2025 Term****5114 Pointe****U G 1**

Pointe work in classical ballet for dance majors and graduate dance students.

Concur: 2113, or permission of instructor. Repeatable to a maximum of 8 cr hrs or 4 completions. VSP Admis  
Cond course.

**Design****DESIGN****Summer 2025 Term****4405 Design Media for Non-Majors****U 3**

The application of electronic media technologies to design content.

**Summer 2025 Term****4505 3-D Visualization****U 3**

Concepts of 3D modeling, rendering and animation for visualizing design forms.

**Summer 2025 Term****5151 Advanced Industrial Design II****U G 3**

A competency with tools, technologies, skills and materials in the exploration, creation, and production of products, artifacts, environments, systems, communication solutions and services.

Prereq: 5101, or Grad standing, or enrollment in Design major, or permission of instructor. Concur: 5800. Not open to students with credit for 661.04.

**Summer 2025 Term****5152 Advanced Interior Design II****U G 3**

Student develops project that applies principles of organizational strategy and interior identity development addressing the physical, social, and psychological context of work, leisure, and learning environments.

Prereq: 5102, or Grad standing or enrollment in Design major, or permission of instructor. Concur: 5552. Not open to students with credit for 661.08.

**Summer 2025 Term****5153 Advanced Visual Communication Design II****U G 3**

Apply design research, problem definitions, concept development, and implementation approaches in creating comprehensive projects that are relevant to proposed subject, design objectives, and targeted audiences.

Prereq: 5103, or Grad standing, or enrollment in Design major, or permission of instructor. Concur: 5453. Not open to students with credit for 661.02.

**Summer 2025 Term****5600S Design Matters****U G 3**

Students in this interdisciplinary design/build studio have the opportunity to work on site in a collaborative design environment with a local non-profit organization.

Prereq: Enrollment in Design major, or Grad standing, or permission of instructor.

**East Asian Languages and Literatures****EALL**

**Autumn 2025 Semester****7703 Presentation of East Asian Languages and Cultures****G 1 - 2**

Preparation and presentation of curriculum and syllabus for East Asian language program and adaptation of learning materials. Concurrent registration in 7700 and 7704 recommended.

Su Sem. Prereq: High-level competency in the target East Asian language, and permission of instructor.

Repeatable to a maximum of 4 cr hrs or 2 completions. FL Admis Cond course.

**Autumn 2025 Semester****7704 Teaching Practicum in East Asian Languages****G 1 - 5**

Training as a classroom teacher through practice teaching to students and the observation of classes taught by trainees and master teachers.

Prereq: High-level competence in an East Asian language, and permission of instructor. Repeatable to a

maximum of 10 cr hrs or 3 completions. FL Admis Cond course.

**Electrical and Computer Engineering****ECE****Summer 2025 Term****7866 Computer Vision****G 3**

Computer vision systems, image models, feature extraction, shape representation and recognition, object modeling and recognition, matching, probabilistic and statistical modeling, semantic knowledge, and face perception.

Prereq: 5460 (707). Not open to students with credit for 863.

**English****ENGLISH****Summer 2025 Term****2150 Career Preparation for English and Related Majors****U 3**

This general elective course helps English majors and students from other Humanities disciplines to explore and prepare for careers after graduation. Students will analyze texts to gain a practical and theoretical understanding of the world of work. They will learn to identify their own strengths and preferences to guide their job activity and career choices.

**Summer 2025 Term****3273 Modernist Thought & Culture, 1880-1945****U 3**

This is a team-taught course that surveys modern Western cultural history and its revolutionary developments in physics, genetics, philosophy, psychiatry, visual art, architecture, music, dance, and literature. The team-teaching format ensures that students will have the opportunity to approach modernist ideas and forms of expression from more than one disciplinary perspective.

Prereq: English 1110 and any History 2000-level course, or permission of instructor. Not open to students with credit for History 3273. Cross-listed in History.

**Summer 2025 Term****4400 Literary Locations****U 3**

Study of sites of literary importance, and texts connected with them in the British Isles, Ireland, and elsewhere. Concludes with 10-day visit to location. Taught in conjunction with English 5797.

Prereq: Permission of instructor. Concur: 5797. Not open to students with 10 qtr cr hrs for 595. Repeatable to a maximum of 6 cr hrs.

**Summer 2025 Term****4562 Studies in Literature and the Other Arts****U 3**

Studies in English literature in an interdisciplinary context. Period and context will vary. Possible topics: modernism and music, romanticism and painting, Elizabethan literature and iconography.

Prereq: 10 qtr cr hrs or 6 cr hrs of English at 2000-3000 level, or permission of instructor. 5 qtr cr hrs in 367 or 3 cr hrs in 2367 in any subject is acceptable towards the 6 cr hrs. Not open to students with 10 qtr cr hrs for 596.

Repeatable to a maximum of 6 cr hrs.

**Summer 2025 Term****4564.01 Major Author in Medieval and Renaissance British Literature****U 3**

Intensive study of one of the major authors of the period.

Prereq: 10 qtr cr hrs or 6 cr hrs of English at 2000-3000 level, or permission of instructor. 5 qtr cr hrs in 367 or 3 cr hrs in 2367 in any subject is acceptable towards the 6 cr hrs. Not open to students with credit for 564.01.

**Summer 2025 Term****4564.02 Major Author in 18th- and 19th-Century British Literature****U 3**

Intensive study of one of the major authors of the period.

Prereq: 10 qtr cr hrs or 6 cr hrs of English at 2000-3000 level, or permission of instructor. 5 qtr cr hrs in 367 or 3 cr hrs in 2367 in any subject is acceptable towards the 6 cr hrs. Not open to students with credit for 564.02.

**Summer 2025 Term****4564.04 Major Author in 20th-Century Literature in English****U 3**

Intensive study of one of the major authors of the period.

Prereq: 10 qtr cr hrs or 6 cr hrs of English at 2000-3000 level, or permission of instructor. 5 qtr cr hrs in 367 or 3 cr hrs in 2367 in any subject is acceptable towards the 6 cr hrs. Not open to students with credit for 564.04.

**Summer 2025 Term****4595 Literature and Law****U 3**

Exploration of some fundamental questions underlying the cultural representation of legal order, particularly the nature of legal authority and of individual resistance to it.

Prereq: 10 qtr cr hrs or 6 cr hrs of English at 2000-3000 level, or permission of instructor. 5 qtr cr hrs in 367 or 3 cr hrs in 2367 in any subject is acceptable towards the 6 cr hrs. Not open to students with credit for 593.

**Summer 2025 Term****5189S Comparative Studies Field School****U G 3**

Introduction to ethnographic field methods (participant-observation, writing field notes, photography, interviewing), archiving, and public humanities. An introduction to fieldwork is followed by a field experience (where students will reside together in local housing) followed by accessioning, exhibition planning and reflection. Maximum credit hours include those for CompStd 5189S.

Prereq: Permission of instructor. Repeatable to a maximum of 12 cr hrs. Cross-listed in CompStd.

**Summer 2025 Term****6776.02 From 1900 to the Contemporary Period****G 3**

A two-course sequence (with English 6776.01) in literary criticism from Plato to contemporary theory. Major texts and issues from 1900 to the present.

Prereq: Grad standing, or permission of instructor. Not open to students with credit for 676. 776.02, 6776.02, or 6776.22.

**Summer 2025 Term****7837.01 Studies in 18th Century Genre****G 3**

Introduction to advanced study and current scholarship and criticism of one of the following: eighteenth-century fiction, poetry, drama, or non-fiction.

Prereq: Grad standing, or permission of instructor. Not open to students with credit for 737, 7837.01 or 7837.02.

**Summer 2025 Term****7837.02 Studies in 18th Century Genre****G 3**

Introduction to advanced study and current scholarship and criticism of one of the following: eighteenth-century fiction, poetry, drama, or non-fiction.

Prereq: Grad standing or permission of instructor. Not open to students with credit for 737, 7837.01 or 7837.02.

This course is graded S/U.

**Summer 2025 Term****1100.06 Introduction to Ohio State and Computer Science and Engineering****U 1**

Introduction to the University community and College of Engineering: Strategies for successful transition, academic requirements, University procedures, grading system, resources, overview of engineering academic areas of study and services.

Prereq: Enrollment in the College of Engineering. Not open to students with credit for FAES 1100, ArtsCol 1100, ArtsSci 1100, HumanEc 1100, and Exp 1100.

**Summer 2025 Term****1281.02H Fundamentals of Engineering for Honors I - Advanced Programming****U 5**

Engineering problem solving utilizing computational tools such as Excel and MATLAB; algorithm development; introduction to C++ programming for engineering; hands-on experimentation; modeling; ethics; teamwork; written, oral and visual communications. This variant of the course is intended for students who are advanced in computer programming skills.

Prereq: Honors standing, and enrollment in the College of Engineering; or permission of instructor. Prereq or concur: Math 1151, or 1161.02, or 1181H. Not open to students with credit for 1181.01, 1181.02, Engineer 191.01H, 191.02H, or CSE/Engr 1222.

**Summer 2025 Term****2367.01H Honors American Attitudes About Technology****U 3**

Discussion, analysis, and intensive writing in a technical and professional context based on study of American attitudes about technology.

Prereq: Honors standing; and English 1110.01 (110.01) or 1110.01H (110.01H); and Soph standing or above. Not open to students with credit for Engr 2367 (367). GE writing and comm: level 2 and diversity soc div in the US course.

**Summer 2025 Term****4375 Inclusive Leadership Practice for Emerging Professionals****U 1**

To provide engineering students with the tools and techniques that allow them to develop their confidence, leadership style, and community of support in their academic and professional careers.

**Engineering Technology****ENGTECH****Summer 2025 Term****2325T Analog and Digital Electronics****U 3**

An introduction to analog and digital electronics with emphasis on industry applications. A grade of C or better required to meet graduation requirements for Hydraulic Power and Motion Control.

Prereq: 2322T (202T). Not open to students with credit for 203T. This course is available for EM credit.

**Environment and Natural Resources****ENR****Summer 2025 Term****8375 Design of Natural Resource Studies****G 3**

This is a discussion-driven course that will emphasize student understanding of different types of study design, critical considerations when designing studies, and appropriate analytical approaches and inferential frameworks. The course is practical in that students can use this course as an opportunity to develop or flesh out the design of a study relevant to their graduate research.

**Entomology****ENTMLGY****Summer 2025 Term****6702 Entomological Techniques and Data Analysis****G 2**

A hands-on course about techniques used with living insects, and design and analysis of simple experiments. Entomological techniques include rearing, colony establishment, behavior assays, growth analysis, and insecticide dose/response bioassays.

Prereq: 3000 or 4000, or equiv.

## Environmental Engineering

ENVENG

### Summer 2025 Term

**5120      Bioremediation of Groundwater and Soil**  
**U G      3**

An overview of biotechnology methods for remediation of groundwater and soils. Overview of theory and bioremediation component design. Includes a study of the role of key microbial groups capable of transforming common contaminants in subsurface media with a particular emphasis on molecular genetic biotechnology methods to identify and document their ecology and metabolic condition.

Prereq: A course in Micrbio; or Grad standing; or permission of instructor. Not open to students with credit for CivilEn 818.

## Educational Studies: Counselor Education

ESCE

### Summer 2025 Term

**2273      Seminar: Study Skills Related to Career Goals**  
**U      2**

Designed to assist underachieving students with their efforts to ascertain and resolve the causes of low academic productivity; attitudinal and behavioral skills emphasized.

Prereq: Not open to students with credit for EduPAES 270.03. This course is progress graded (S/U).

## Educational Studies: Educational Administration

ESEADM

### Summer 2025 Term

**8201      Community-Based Research and Evaluation in Educational Administration**  
**G      3**

This course focuses on identifying, understanding and addressing problems of practice at the community level. Through class discussions and assignments, students will become familiar with the paradigm shift, developing community inquiry through problem mapping and evaluation and community based participatory research (CBPR).

Cross-listed in ESQual.

## Educational Studies: Educational Policy

ESEPOL

### Summer 2025 Term

**8209      Cultural Processes in Education**  
**G      3**

Examines the role of cultural processes in educational practices at school, after school, in the home, and on the job. Explores how culture, ethnicity, and power operate in formal and informal educational settings.

Prereq: Not open to students with credit for EduPL 909.

## Educational Studies: Higher Educ & Student Affairs

ESHESA

### Summer 2025 Term

**2239      Land-Grant Universities: Mission and Leadership**  
**U      3**

This course provides students with the opportunity to learn about land-grant institutions and their place in the American higher education system, including the evolving nature of the land-grant mission in 21st century America, as well as how higher education leaders are reconfiguring our nation's preeminent public institutions to meet the needs of the communities they were designed to serve.

Cross-listed in HDFS.

### Summer 2025 Term

**2576      Leadership for Resident Advisors**  
**U      1 - 3**

Provides an overview of the theory and skills necessary for the practice of effective leadership in team and organizational settings. Leadership is explored as an integral component of a student's role as a Resident Advisor.

Repeatable to a maximum of 12 cr hrs or 4 completions.



**Summer 2025 Term****2578 Leadership for Residence Managers****U 1 - 3**

Provides an overview of the theory and skills necessary for the practice of effective leadership in team and organizational settings. Leadership is explored as an integral component of a student's role as a Resident Manager.

Repeatable to a maximum of 12 cr hrs or 4 completions.

**Summer 2025 Term****3200 So You Want to Work with College Students? Intro to Student Affairs****U 3**

Course focuses on the role of student development theory and its use in helping students examine how they grow as a result of the college experience.

**Summer 2025 Term****7518 Leadership and Group Facilitation in Higher Education****G 3**

Emphasis on group theory, processes, and dynamics and the development of structured learning experiences that facilitate interpersonal growth and group development in educational organizations.

Prereq: Permission of instructor.

**Summer 2025 Term****7564 Finance of Higher Education****G 3**

A study of finance of higher education with emphasis on public issues affecting higher education; criteria for identifying and developing resources for higher education institutions; and perceived productivities of departmental and academic units.

Prereq: Admission to Higher Education Student Affairs program or EducSt-ED program.

**Educational Studies: Learning Technologies****ESLTECH****Summer 2025 Term****8216 Scholarly Perspectives in Learning Technologies****G 3**

Survey of the theories and research within the field of Learning Technologies.

**Summer 2025 Term****8226 Methods of Inquiry in Learning Technologies****G 3**

This course will introduce research methodologies specifically in technology-supported learning environments, including self-report and experience sampling method, data intensive research, big data movement, learning analytics, data collection issues, data access and privacy, content analysis of online discussions, social network analysis, as well as design based research.

**Educational Studies: Philo & Hist of Education****ESPHE****Summer 2025 Term****2241 Integrative Learning: How the Brain Learns****U 3**

Current and emerging theoretical and cultural conception of integrative learning based on current brain research. GE soc sci indivs and groups course. GE foundation social and behavioral sci course.

**Educational Studies: Workforce Development & Educ****ESWDE****Summer 2025 Term****7289 Practicum in Teaching Adults Online****G 3**

Course management system and content area. Learners will design and teach a lesson online. Provides an opportunity for students to practice the skills developed in the grad minor. Specialization in teaching in a virtual environment.

Prereq: 7701 or EduPAES 7701, and ESWDE 5701 or EduPAES 5701; or ESETec 6282 or EduPL 6282.

## Food, Agricultural, and Biological Engineering

FABENG

### Summer 2025 Term

#### 2200 Introduction to Humanitarian Engineering

U 1

This course will introduce students to the field of Humanitarian Engineering, cover a variety of potential career paths in this field, explore introductory engineering equations as they apply to problem solving in low-resource settings, introduce students to reflection and communication skills for working as engineers in development and discuss cultural constraints for engineering problems.

### Summer 2025 Term

#### 2201 Introduction to Humanitarian Engineering Laboratory

U 2

This course will introduce students to the field of Humanitarian Engineering through experience based learning. Weekly experiential activities will build context for engineering design in low resource and international settings as humanitarian development workers. Students will learn about lifestyles, challenges and physical limits in human existence to better inform engineering design decisions.

Prereq or concur: 2200.

## Food, Agricultural, and Environmental Sciences

FAES

### Summer 2025 Term

#### 3488 Professional Development in the College of Food, Agricultural, and Environmental Sciences

U 0 - 2

Participation in structured co-curricular programs leading to professional development or other structured programs providing experience for professional development.

Prereq: CPHR 2.0 or above, and permission of instructor. Repeatable to a maximum of 6 cr hrs or 6 completions. This course is graded S/U.

## Food Science and Technology

FDSCTE

### Summer 2025 Term

#### 7560 The Science of Human Sensory Measurements: Theoretical Principles and Industrial Applications

G 2

This course provides students with a critical overview of the science behind perception measurements in sensory evaluation with a focus on sensory discrimination testing. This course will describe a theoretical foundation to sensory measurements with central industrial applications, including concepts borrowed from other fields such as psychology, mathematical modeling, and statistics.

Prereq: 5500, or permission of instructor.

### Summer 2025 Term

#### 7620 Food and Nutritional Toxicology

G 2

Basic principles of food and nutritional toxicology with emphasis on food components and food toxins including absorption, metabolism and excretion of xenobiotics, allergenic and toxic constituents, role of diet and nutrients in mutagenesis and carcinogenesis.

Prereq: Biochem 4511 or 5613. Not open to students with credit for 830, AnimSci 830, or HumnNtr 830.

## Film Studies

FILMSTD

### Summer 2025 Term

#### 2367.01 The American Film Auteur

U 3

An intermediate course centering around the work of one important US filmmaker that extends and refines expository writing and analytic reading / viewing skills. GEL students should complete English 1110 prior to enrollment.

Prereq: EduTL 1902, 1902.04, IELP WRITE score of 80, English Placement Level 4, or English 1110 or equivalent. Repeatable to a maximum of 6 cr hrs. GE writing and comm course: level 2. GE foundation writing and info literacy course.

**Summer 2025 Term****2367.02 The American Film Genre****U 3**

An intermediate course centering around the works of one important US film genre that extends and refines expository writing and analytic reading / viewing skills. GEL students should complete English 1110 prior to enrollment.

Prereq: EduTL 1902, or 1902.04, or IELP WRITE score of 80, or English Placement Level 4. Repeatable to a maximum of 6 cr hrs. GE writing and comm course: level 2. GE foundation writing and info literacy course.

**French****FRENCH****Summer 2025 Term****2101.01H Honors Introduction to French and Francophone Studies****U 3**

Techniques for reading and interpreting different types of texts from the French-speaking world: stories, poetry, plays, films, music, and ads while building vocabulary, comprehension, speaking and writing skills.

Prereq: Honors standing, and 1103.01, 1103.21, 4 cr hrs of 1103.51 or 1103.61, or permission of instructor. Not open to students with credit for 2101.01, 2101.01H, or 3 cr hrs of 2101.51 or 2101.61. This course is available for EM credit.

**Summer 2025 Term****2501 Topics in French Literature and Culture in Translation****U 3**

Variable topics in French and Francophone literatures and cultures; taught in English.

Prereq: Not open to students with credit for 250. Repeatable to a maximum of 6 cr hrs. GE lit course.

**Summer 2025 Term****3701 Introduction to French Cinema****U 3**

Introduction to the study of French cinema, French film history and the art of the cinema.

Prereq: 3101 (401). Not open to students with credit for 470.

**Summer 2025 Term****3801 French-American Culture Wars****U 3**

French-American cultural relations since World War I; an exploration of French reaction to and adoption or rejection of a number of American cultural "exports," from jazz and the GI to Coke and consumerism. Taught in English.

Prereq: Not open to students with credit for 153. GE cultures and ideas course.

**Summer 2025 Term****5206 North Africa: Texts and Contexts****U G 3**

Major intellectual and literary currents in Francophone North Africa.

Prereq: 3101 (401), and either 3201 (425 and 426) or 3202 (427); or Grad standing (graduate students require written permission of the Graduate Studies Chair in consultation with student's advisor). Not open to students with credit for 657.02. FL Admis Cond course.

**French and Italian****FRIT****Summer 2025 Term****3052 Mediterranean Migrations****U 3**

An exploration of human movement in the contemporary Mediterranean: tourism vs migration. Survey of the historical varieties of travel in the Mediterranean and examination of contemporary written and filmed narratives of migration in the Mediterranean zone.

Prereq: English 1110 or equiv. Not open to students with credit for CompStd 3052 or Italian 3052. GE cultures and ideas and diversity global studies course. Cross-listed in CompStd.

**Summer 2025 Term****3301 Discovering Second Language Acquisition****U 3**

This course introduces undergraduate students to the exciting field of second language acquisition. This course is ideal for language learners who wish to reflect on and improve their own language learning experience, for those who desire to become language instructors, and for anyone who simply has an interest in languages. Taught in English.

GE foundation social and behavioral sci course.

**General Studies: Humanities****GENHUM****Summer 2025 Term****1190.02T Humanities as a Window on Cultural Pluralism: Global Arts****U 3**

An introduction to specific visual arts and cultural contexts of four societies: Japan, Ghana, France, USA. This course is available for EM credit.

**General Studies****GENSTDS****Summer 2025 Term****1201.02T College Orientation for Transfer Students****U ½**

Introduction to the advanced steps and opportunities for success in a life-long journey of becoming an educated person as you integrate into the University and ATI communities.

**Geography****GEOG****Summer 2025 Term****3750 Geography of North America****U 3**

Geographical analysis of North America; spatial patterns and processes associated with culture, politics, economy and social difference at international, national, regional and urban scales.

Prereq: Not open to students with credit for 400. GE diversity soc div in the US course.

**German****GERMAN****Summer 2025 Term****1101.51 German I - Variable-Credit****U 1 - 4**

German 1101.01 content in variable-credit format for independent learners of German. CEFR Levels A1/A2. Progress is sequential from 1 cr hr to the next, with proficiency at the level of 80% required for advancement. Not open to native speakers of this language through regular course enrollment or EM credit, or to students with 2 or more years of study in high school, except with permission of instructor.

Prereq: Not open to students with credit for 1101.01. Repeatable to a maximum of 4 cr hrs or 4 completions.

This course is available for EM credit. GE for lang course. GE world languages course.

**Summer 2025 Term****1101.61 Beginning German I (Variable-Credit Distance Learning)****U 1 - 4**

German 1101.61 is an online version of German 1101. This course allows students to work through the first of Ohio State's 3-course introductory German sequence in a variable-credit Distance-Learning format. Students will learn to write, read, listen to and speak German, completing work independently with materials and instructor support.

Prereq: Not open to students with credit for 1101.01 or 1101.51. Repeatable to a maximum of 4 cr hrs. This course is available for EM credit. GE for lang course. GE world languages course.

**Summer 2025 Term****1102.51 German II - Variable-Credit****U 1 - 4**

German 1102.01 content in variable-credit format for independent learners of German. CEFR Levels A2/B1. Progress is sequential from one cr hr to the next, with proficiency at the level of 80% required for advancement. Not open to native speakers of this language through regular course enrollment or EM credit. Prereq: 1101.01, or 4 cr hrs of 1101.51; or concur: 1101.01, or 1101.51; or permission of instructor. Not open to students with credit for 1102.01. Repeatable to a maximum of 4 cr hrs or 4 completions. This course is available for EM credit. GE for lang course. GE world languages course.

**Summer 2025 Term****1102.61 Beginning German II (Variable-Credit Distance Learning)****U 1 - 4**

German 1102.61 is an online version of German 1102. This course allows students to work through the second of Ohio State's 3-course introductory German sequence in a variable-credit Distance-Learning format. Students will learn to write, read, listen to and speak German, completing work independently with materials and instructor support.

Prereq: 1101.01, 1101.51, or 1101.61. Not open to students with credit for 1102.01 or 1102.51. Repeatable to a maximum of 4 cr hrs. This course is available for EM credit. GE for lang course. GE world languages course.

**Summer 2025 Term****1103.51 German III - Variable-Credit****U 1 - 4**

German 1103.01 content in variable-credit format for independent learners of German. CEFR Level B2. Progress is sequential from one cr hr to the next, with proficiency at the level of 80% required for advancement. Not open to native speakers of this language through regular course enrollment or EM credit.

Prereq: 1102.01 or 1266, or 4 cr hrs of 1102.51; or concur: 1102.01, 1102.51, or 1266; or permission of instructor. Not open to students with credit for 1103.01. Repeatable to a maximum of 4 cr hrs or 4 completions. This course is available for EM credit. GE for lang course. GE world languages course.

**Summer 2025 Term****1103.61 Beginning German III (Variable-Credit Distance Learning)****U 1 - 4**

German 1103.61 is an online version of German 1103. This course allows students to work through the third of Ohio State's 3-course introductory German sequence in a variable-credit Distance-Learning format. Students will learn to write, read, listen to and speak German, completing work independently with materials and instructor support.

Prereq: 1102.01, 1102.51, or 1102.61. Not open to students with credit for 1103.01 or 1103.51. Repeatable to a maximum of 4 cr hrs. This course is available for EM credit. GE for lang course.

**Summer 2025 Term****2250 Berlin: Stories, Languages, and Ideas****U 3**

The roles Berlin played in Europe's and the world's major upheavals, from the Thirty Years' War to the Fall of the Wall in 1990, and insight into the increasing internationalization of Berlin from three perspectives: stories told by and about Berlin's citizens; philosophical & scientific ideas generated in Berlin; and multilingual dialects and variations.

GE lit and diversity global studies course.

**Summer 2025 Term****2253 Magic, Murder and Mayhem****U 3**

Origins and highlights of German culture and life to 1648 as reflected in literary and poetic works, Germanic mythology, religion, and the arts.

Prereq: Not open to students with credit for 291. GE lit and diversity global studies course. GE foundation lit, vis and performing arts course.

**Summer 2025 Term****2310 Nature in Nordic and German Literatures****U 3**

This course explores how literature and culture are deeply intertwined with our relationship toward nature. The focus of this exploration is the literature, culture, and history of Nordic and German-speaking countries, from the medieval period to the present. Taught in English.

Prereq: Not open to students with credit for Scandvn 2310. GE lit course. Cross-listed in Scandvn.

**Summer 2025 Term****2451 Hollywood: Exiles & Emigres****U 3**

German cinema has played an influential role in the development of international film genres. In this class we look at examples of films made in Hollywood that bear the stamp of German influence. We also look at films made in Germany that show that influence flows in both directions. This course assumes no prior knowledge of German, German films, or film theory in general. Taught in English.

Prereq: Not open to students with credit for 671. GE VPA course.

**Summer 2025 Term****3252.01 The Holocaust in German Literature and Film****U 3**

This course will provide an overview of the historical events we call the Holocaust, including their pre-history and their aftermath. This information will provide the necessary background for discussing some of the questions that have occupied the fields of philosophy, literature, aesthetics, and ethics over the last sixty years. Taught in English.

Prereq: Not open to students with credit for 3252.02 or Yiddish 3399. GE lit and diversity global studies course. GE theme citizenship for div and just wrld course.

**Summer 2025 Term****3353H German Intellectual History: Marx, Nietzsche, and Freud****U 3**

Marx, Nietzsche, and Freud are essential for understanding intellectual thought in the late nineteenth and twentieth century. They have retained their importance into the twenty-first century. The focus of the course will be the way in which Marx, Nietzsche, and Freud reconceived the notion of history, historical progress, and historiography.

Prereq: Honors standing. GE cultures and ideas course.

**Horticulture and Crop Science****HCS****Summer 2025 Term****2201 Ecology of Managed Plant Systems****U 4**

Origin, diversification, and biogeography of plants inhabiting managed landscapes. GE nat sci bio course.

**Summer 2025 Term****2201E Ecology of Managed Plant Systems****U 4**

Origin, diversification, and biogeography of plants inhabiting managed landscapes.

Prereq: Honors standing. GE nat sci bio course.

**Summer 2025 Term****5890 Turfgrass Seminar****U G 1**

This course uses case studies and discussion to provide students with an appreciation of the process involved in solving turfgrass problems at the managerial level. Using real-life scenarios, students will learn to recognize problems, analyze problems, identify issues that need to be addressed to correct the problems, formulate a set of strategies for solving the problems, and more.

Prereq: 4570, or Jr, Sr, or Grad standing.

**Summer 2025 Term****7003.02 Agricultural Genomics: Principles and Applications****G 2**

Reviews the principles of most genetic technologies, new developments in the field and emphasizes their application in agriculture.

Prereq: MolGen 4500 or Biochem 5613 (613), or permission of instructor. Concur: PlntPth 7003.01. Not open to students with credit for 7003 (703) or PlntPth 7003 (703).

**Summer 2025 Term****7830      Phytochemicals in Human Health: Crops to the Clinic****G            3**

Covers the function and control of phytochemicals in plants, the function of phytochemicals in human health, delivery of phytochemicals through foods in the diet, strategies when designing studies examining foods for health, and policy and sustainability considerations.

Prereq: Biochem 4511 (511) or 5613 (613), or equiv; or permission of instructor. Not open to students with credit for FdScTe 7810. Cross-listed in FdScTe, HumnNtr, BSGP, and PubHEpi.

**Human Development And Family Science****HDFS****Summer 2025 Term****2239      Land-Grant Universities: Mission and Leadership****U            3**

This course provides students with the opportunity to learn about land-grant institutions and their place in the American higher education system, including evolving nature of the land-grant mission in 21st century America, as well as how higher education leaders are reconfiguring our nation's preeminent public institutions to meet the needs of the communities they were designed to serve.

Cross-listed in ESHESA.

**Summer 2025 Term****3189.06    Field Work with Targeted Populations: Children with Disabilities****U            1 - 3**

Field work for students who are interested in working with children with disabilities; promoting independent and productive inclusion in home, school, and community environments.

Prereq: 2410, and Jr or Sr standing. Not open to students with credit for 689.02. Repeatable to a maximum of 6 cr hrs or 6 completions.

**History****HISTORY****Summer 2025 Term****2075      Introduction to U.S. Latino/a History****U            3**

Survey of Latinos/Latinas and their history in the United States from Spanish colonial period to present.

Prereq or concur: English 1110.xx. Not open to students with credit for 324. GE historical study and diversity soc div in the US course. GE foundation historical and cultural studies course.

**Summer 2025 Term****2079      Asian American History****U            3**

A survey of how Asian immigrants, their American-born children, and international relations with Asia have shaped U.S. History.

Prereq or concur: English 1110.xx. Not open to students with credit for 346. GE cultures and ideas and historical study and diversity soc div in the US course.

**Summer 2025 Term****2351      Early Islamic Society, 610-1258****U            3**

Origins and early development of selected fundamental Islamic institutions in their historical and cultural context.

Prereq or concur: English 1110.xx. Not open to students with credit for Islam 2351. GE historical study course.

GE foundation historical and cultural studies course. Cross-listed in Islam.

**Summer 2025 Term****2375      Islamic Central Asia****U            3**

Introductory survey of the political, cultural, religious, and economic history of Islamic central Asia from the eighth-century Arab conquests to the nineteenth-century Russian colonial era.

Prereq or concur: English 1110.xx, or permission of instructor. Not open to students with credit for 343. GE historical study and diversity global studies course.

**Summer 2025 Term****2393 Contemporary India and South Asia****U 3**

The political, social, economic, and cultural history of contemporary India and the South Asian subcontinent, focusing on India, Pakistan, and Bangladesh.

Prereq or concur: English 1110.xx. Not open to students with credit for 543.04. GE historical study course. GE foundation historical and cultural studies course.

**Summer 2025 Term****2450 Ancient and Medieval Jewish History, 300 BCE-1100 CE****U 3**

Introduction to the history of Jewish communities, religion, and culture in the Near East from the Greco-Roman period to the First Crusade.

Prereq or concur: English 1110.xx, or permission of instructor. Not open to students with credit for 330.01 or JewshSt 2450. GE cultures and ideas and historical study and diversity global studies course. Cross-listed in JewshSt.

**Summer 2025 Term****2451 Medieval and Early Modern Jewish History, 700-1700 CE****U 3**

Introduction to the history of Jewish communities, religion, and culture in Europe during the Medieval and Early Modern periods.

Prereq or concur: English 1110.xx, or permission of instructor. Not open to students with credit for JewshSt 2451. GE historical study course. GE foundation historical and cultural studies course. Cross-listed in JewshSt.

**Summer 2025 Term****2452 Modern Jewish History 1700-Present****U 3**

Study of the history of Jewish communities and Judaism from the early modern period to the early 21st century.

Prereq or concur: English 1110.xx, or permission of instructor. Not open to students with credit for 330.02 or JewshSt 2452. GE historical study course. GE foundation historical and cultural studies course. Cross-listed in JewshSt.

**Summer 2025 Term****2610H A Survey of U.S. Women's and Gender History: Diversity and Intersections****U 3**

Survey of women and gender from pre-European settlement to present, with particular attention to differences among women.

Prereq or concur: Honors standing; and English 1110.xx or completion of GE Foundation Writing and Information Literacy Course, or permission of instructor. GE historical study and diversity soc div in the US course. GE foundation historical and cultural studies and race, ethnicity and gender div course.

**Summer 2025 Term****2705 The History of Medicine in Western Society****U 3**

Explores the changing intellectual, economic, institutional and cultural relationships that have characterized medicine in the Western world from antiquity to the present, and examines individual roles and trends in the education of practitioners, locations of healing, and expectations that people had of medicine as ideas about the body and illness shifted.

Prereq or concur: English 1110.xx, or permission of instructor. GE historical study course. GE foundation historical and cultural studies course.

**Summer 2025 Term****3005 The United States Constitution and American Society to 1877****U 3**

Advanced study of U.S. constitutional history from the colonial charters through Reconstruction after the Civil War.

Prereq or concur: English 1110.xx, or permission of instructor. GE historical study course. GE foundation historical and cultural studies course.

**Summer 2025 Term****3102 Central America and the Caribbean since Independence****U 3**

Political, economic, and cultural history of West Indies (Cuba, Haiti, Dominican Republic, etc.) and Central America (Panama, Guatemala, Nicaragua, etc.) and relations with United States.

Prereq or concur: Any 2000-level History course, and English 1110.xx. Not open to students with credit for 534.01. GE historical study course.



**Summer 2025 Term****3252 People on the Move: Migration in Modern Europe****U 3**

Study of migration movements in Europe from the age of industrialization to the present.

Prereq: English 1110.xx and any History 2000-level course, or permission of instructor. GE historical study and diversity global studies course.

**Summer 2025 Term****3308 History of US - Africa Relations, 1900 - Present****U 3**

History of the United States' relations with Africa since World War I. Sometimes this course is offered in a distance-only format.

Prereq: English 1110.xx and any History 2000-level course, or permission of instructor. Not open to students with credit for AfAmASt 3308. GE historical study and diversity global studies course. Cross-listed in AfAmASt.

**Summer 2025 Term****3310 History of African Cinema****U 3**

Emergence and development of African cinema as a film genre and part of material culture. European colonial and ethnographic film to modern African cinema. Sometimes this course is offered in a distance-only format.

Prereq: English 1110.xx, or permission of instructor. Not open to students with credit for AfAmASt 3320. GE historical study and diversity global studies course. Cross-listed in AfAmASt 3320.

**Summer 2025 Term****3401 Foundations of Chinese Civilization****U 3**

Cross-era comparative development of thoughts, beliefs, culture, economy, and political system through the Tang (618-907) that shaped China's later history and role in East Asia.

Prereq or concur: English 1110 or equiv, and course work in History at the 2000 level, or permission of instructor. Not open to students with credit for 342. GE historical study course.

**Summer 2025 Term****3465 American Jewish History****U 3**

Study of topics in American Jewish history from the colonial era to the present.

Prereq or concur: English 1110.xx, or completion of GE Foundation Writing and Information Literacy Course, or permission of instructor. Not open to students with credit for JewshSt 3465. GE historical study course. GE theme migration, mobility, and immobility course. Cross-listed in JewshSt.

**Summer 2025 Term****3500 U.S. Diplomacy from Independence to 1920****U 3**

Between 1776 and 1920, the United States transformed from a fragile confederacy of bickering states into a globe-spanning empire. This class will consider American foreign relations exploring the contested ideas of ideology and expansion that motivated official policy and international affairs, with a particular emphasis on themes of expansion, immigration, and migration.

GE historical study course. GE theme migration, mobility, and immobility course.

**Summer 2025 Term****3640 Women: Navigating the Patriarchy in Medieval Europe****U 3**

Investigation of the lives and experiences of medieval European women, with special focus on political power, religious life, work, and family life.

Prereq or concur: English 1110.xx, or completion of GE Foundation Writing and Information Literacy Course, or permission of instructor. GE historical study course. GE theme traditions, cultures, and transformations course.

**Summer 2025 Term****4216H Honors Seminar in Roman History****U 3**

Advanced research and readings on selected topics in Roman History.

Prereq or concur: Honors standing, English 1110.xx, a grade of C or above in History 2800, and any 3000-level History course; or permission of instructor.

**Summer 2025 Term****4325E Embedded Honors Seminar in African History****U 3**

Advanced research and readings on selected topics in African History.

Prereq or concur: Honors standing, English 1110.xx, a grade of C or above in History 2800, and any 3000-level History course; or permission of instructor.

**Human Nutrition****HUMNNTR****Summer 2025 Term****7830 Phytochemicals in Human Health: Crops to the Clinic****G 3**

Covers the function and control of phytochemicals in plants, the function of phytochemicals in human health, delivery of phytochemicals through foods in the diet, strategies when designing studies examining foods for health, and policy and sustainability considerations.

Prereq: Biochem 4511 or 5613, or equiv; or permission of instructor. Not open to students with credit for FdScTe 7810. Cross-listed in FdScTe, HCS, BSGP, and PubHEpi.

**Spring 2025 Semester****8834 Comprehensive Approach to Food Safety****G 2**

A comprehensive overview of food safety challenges and solutions as experienced through the food chain from farm to consumers. Demonstration of food safety system from cellular aspects through public policy.

Prereq: Micrbio 509, or equiv. Not open to students with credit for 830.10, AnimSci 830.10, or FdScTe 830.10. Cross-listed in AnimSci.

**Health and Wellness****HW****Summer 2025 Term****1100 Health and Wellness Survey****U 1**

Introduction to the Health and Wellness degree with emphasis on strategies for success, resources, and procedures.

Prereq: Enrollment in Pre-HW. This course is graded S/U.

**Internal Medicine****INTMED****Summer 2025 Term****7100.01 Advanced Clinical Skills: Reproductive Counseling****G 1**

Students will gain skills needed to provide reproductive genetic counseling. Aspects of discipline explored in the context of case preparation, med and fam history analysis, risk assess and counseling, diff diag, offering appropriate testing options, interpreting results, explaining complex genetics concepts to patients, creating visual aids for counseling, and psychosocial assess. &amp; counseling.

**Summer 2025 Term****7100.02 Advanced Clinical Skills: Cardiogenetic Counseling****G 1**

Students will focus on the skills needed to provide adult genetic counseling services (cardiogenetics, neurogenetics, and medical genetics). Aspects of discipline explored in the context of case preparation, med and fam history analysis, risk assess and counseling, diff diag, offering appropriate testing options, interpreting results, explaining complex genetics concepts to patients, etc.

**Summer 2025 Term****7100.03 Advanced Clinical Skills: Pediatric Counseling****G 1**

Students will gain skills needed to provide pediatric genetic counseling. Aspects of discipline explored in context of case prep, med and fam hist. analysis, risk assess. and counseling, differential diagnosis, offering appropriate testing options, interpreting results, explaining complex genetics concepts to patients, creating visual aids for counseling, and psychosocial assess. &amp; counseling.

**Summer 2025 Term****7100.04 Advanced Clinical Skill: Cancer Counseling****G 1**

Students will gain skills needed to provide cancer genetic counseling. Aspects of discipline explored in context of case prep, med and fam hist. analysis, risk assess. and counseling, differential diagnosis, offering appropriate testing options, interpreting results, explaining complex genetics concepts to patients, creating visual aids for counseling, and psychosocial assess. & counseling.

**International Studies****INTSTDS****Summer 2025 Term****4537 Middle Eastern Economic Development****U 3**

Introduction to current economic issues facing Middle Eastern countries, and the similarities and differences in their growth, inflation, unemployment, fiscal and monetary policy, imports, exports, foreign debt and exchange rate policies.

Prereq: AEDEcon 2001 (200), or Econ 2001 (200) and 2002 (201), or equiv. Not open to students with credit for 437, 537, Econ 4537 (537), AEDEcon 4537 (537), or 437. Cross-listed in AEDEcon and Econ.

**Summer 2025 Term****4704 A Global War on Terror? America's Response to the 9/11 Attacks****U 3**

Explores the domestic and international impacts of the 9/11 terrorist attacks against the United States. Four different but interrelated wars will be studied: the war against the Taliban in Afghanistan and Pakistan, the war in Iraq, the global war on terror, and the war on the home front—curtailment of civil liberties, militarization of U.S. society, domestic terrorism.

Prereq: Soph standing or above.

**Summer 2025 Term****5050 Two Koreas: Political Economy of Regional Rivalry****U G 3**

Understanding the Korean peninsula. Course will focus on the nature of North and South Korean regional rivalry and its global impacts. Security issues include North Korean nuclear threat, military alliances, & reunification prospects.

Prereq: Soph standing, or permission of instructor.

**Industrial and Systems Engineering****ISE****Summer 2025 Term****5501 Fundamentals of Solid State Processing****U G 3**

Application of basic principles of heat transfer, tribology, and elastic/plastic deformation for metallic solids to manufacturing processes.

Prereq: MechEng 2010, 2020, and 2040, or equiv, and Sr or Grad standing in Engineering.

**Summer 2025 Term****5682.01 Fundamentals of Product Design Engineering****U G 3**

Lecture covering the fundamentals of the product design process, from concept creation to final implementation, including product architecture and design for manufacture and assembly. An optional, corresponding project-based lab course (ME 5683) offers practical application of this material. Only open to students enrolled in majors in the College of Engineering.

Prereq: Jr, Sr, or Grad standing in the College of Engineering, or permission of instructor. Not open to students with credit for 5682, 5682.02, 5560, MechEng 5682, 5682.01, or 5682.02.

**Summer 2025 Term****5820 Systems Thinking in Engineering and Design****U G 3**

Concepts and heuristics in systems thinking and complex systems analysis and how these concepts apply to engineering and design projects.

Prereq: Sr or Grad standing, or permission of instructor. Not open to students with credit for 688.

**Summer 2025 Term****7420 Sequencing and Scheduling****G 3**

Survey of sequencing/scheduling problems encountered in management systems. Emphasis is given to those problems and solution methods found in the literature.

Prereq: 5200, Calculus, and Linear Algebra. Not open to students with credit for 841.

**Summer 2025 Term****7510 Computational Analysis of Manufacturing Processes****G 3**

This course is designed to teach graduate students about constitutive models used for numerical simulation of the inelastic behavior of bulk and sheet materials.

Prereq: Grad standing in ISE, or MechEng, or MatScEn; and knowledge using commercial math software (Matlab, etc.), or ability to write simple codes with Fortran, C++, etc., and knowledge using commercial FEA code (e.g. ABAQUS, LS-Dyna, PAM STAMP, ANSYS, DEFORM, etc.); or permission of instructor.

**Italian****ITALIAN****Summer 2025 Term****3221 Reading Italy: Italian Literature and Culture****U 3**

An exploration of the culture and history of different periods through selected works of Italian literature. Not open to native speakers of Italian.

Prereq: 2102 (202), or permission of instructor. Repeatable to a maximum of 6 cr hrs. FL Admis Cond course.

**Summer 2025 Term****5331 History of the Italian Language****U G 3**

Introduction to basic concepts of historical linguistics; exploration of the major factors of change in the history of the Italian language.

Prereq: Two Italian courses at the 3000-level or above; or Doctoral or MA Candidate; or qualified Undergraduates, and permission of instructor. Not open to students with credit for 711. FL Admis Cond course.

**Summer 2025 Term****8242 Studies in Italian Culture: Gender and Genre****G 3**

Examines representations of gender in film, literature, poetry or other media. May focus on one period/issue or address a center or longer time period.

Prereq: Doctoral and MA candidates, or qualified undergraduates with permission of instructor. Repeatable to a maximum of 9 cr hrs. FL Admis Cond course.

**Summer 2025 Term****8881 Interdepartmental Studies in the Humanities****G 1 - 6**

Two or more departments present colloquia on subjects of mutual interest; topics to be announced. Repeatable with permission from the department .

Prereq: Grad standing. Repeatable to a maximum of 6 cr hrs or 2 completions.

**Japanese****JAPANESE****Summer 2025 Term****7387 Japanese Language Processing****G 3**

Discussion of various studies on and approaches to Japanese first and second language processing.

Prereq: 6380, or permission of instructor. Not open to students with credit for 787.

**Summer 2025 Term****7388 Japanese Language Acquisition****G 3**

Discussion of Japanese language acquisition studies.

Prereq: 6380, or permission of instructor. Not open to students with credit for 788.

**Summer 2025 Term****8387 Topics and Problems in Japanese Linguistics****G 3**

A detailed investigation of specific problems in the phonological, syntactical, and/or lexical analysis of the Japanese language.

Prereq: Permission of instructor. Repeatable to a maximum of 9 cr hrs.

**Summer 2025 Term****8477 Topics and Problems in Japanese Literature****G 3**

Readings in the major genres of Japanese literature with emphasis on analysis and critical evaluation. Varying topics.

Prereq: 5111 and 5454; or 5455, 5456, or permission of instructor. Repeatable to a maximum of 9 cr hrs.

**Knowlton****KNOW****Summer 2025 Term****5880 Knowlton Interdisciplinary Seminar****U G 1 - 15**

Interdepartmental seminar; topics to be announced.

Prereq: Sr or Grad standing. Repeatable to a maximum of 15 cr hrs or 15 completions.

**Kinesiology: Physical Education****KNPE****Summer 2025 Term****3521 Content in Upper Elementary Physical Education****U 3**

An indepth analysis of the content and instruction of the upper elementary school physical education curriculum. Students will develop skills and knowledge in developmentally appropriate content in elementary physical education.

Prereq: Admission to the PESPA major.

**Summer 2025 Term****7863 Teaching Health and Fitness Courses at the College Level****G 3**

Enhances the preparation of students to teach health and fitness courses at the college level.

Prereq: Admission to PETE or PA Grad program, or permission of instructor. Not open to students with credit for EduPAES 863.

**Kinesiology: Sport, Fitness, and Health Program****KNSFHP****Summer 2025 Term****1139.09 Introductory Program of Outdoor Pursuits: Caving I****U 1**

Introduction to basic caving techniques, equipment, trip planning, and safety; cave related ecology, flora, and fauna will also be emphasized. Travel and subsistence costs for activities will be borne by the student. Student must provide sleeping bag.

Prereq: Permission of instructor. Not open to students with credit for EduPAES 139.09. This course is graded S/U.

**Summer 2025 Term****1140.10 Outdoor Pursuits Program: Wilderness First Aid****U 1**

Will train and certify students to cope with basic wilderness hazards and medical emergencies. Upon successful completion of the course students will receive a SOLO WFA completion card valid for 3 years.

Prereq: Not open to students with credit for EduPAES 140.10. This course is graded S/U.

**Summer 2025 Term****1140.11 Wilderness First Responder****U 3**

The Wilderness First Responder course will provide students the knowledge and skills needed to respond to backcountry medical and trauma situations. This is an 80-hr intensive course that meets 8-10 consecutive days between semesters or during a 4-week Session. Upon successful completion students will receive a Wilderness First Responder completion card valid for 3 years. Additional fee required.

**Summer 2025 Term****1148.01 Conditioning Activities: Circuit Training****U 1**

Students will participate in circuit training which combines strength and cardiovascular endurance activities.

**Summer 2025 Term****1169.07 Martial Arts Forms: Tae Kwon Do I****U 1**

Beginning course in the Korean martial art form; includes etiquette, basic blocking, thrusting and kicking techniques, and self defense.

**Landscape Architecture****LARCH****Summer 2025 Term****1100 Landscape Architecture Survey****U 1**

Introduction to the University, the Knowlton School of Architecture and the professions of architecture, city and regional planning and landscape architecture.

Prereq: Not open to students with credit for 1100E, 100, Arch 1100 (100), 1100E, 100H, CRPlan 1100 (100), 1100E, or any survey course. Cross-listed in Arch and CRPlan.

**Summer 2025 Term****2300E Outlines of the Built Environment****U 3**

Introduction to the disciplines of architecture and landscape architecture and planning with an emphasis on the physical artifact and its formal and cultural context. Honors Section.

Prereq: Honors standing. Not open to students with credit for 200, 1210, 2300, Arch 1210 (200), 2300, or 2300E. GE cultures and ideas course. Cross-listed in Arch.

**Summer 2025 Term****2310 Seeing and Making****U 4**

Introduction to the design of the physical environment through the exploration of form, space, and order using drawing and modeling techniques.

Prereq: Not open to students with credit for 1410, Arch 1410, or Arch 2310. Cross-listed in Arch.

**Summer 2025 Term****5367 Landscape Architecture Professional Practice****U G 3**

Overview of landscape architectural professional practice principles, standards and codes, with a focus on writing and communication.

Prereq: Jr, Sr, or Grad standing, and enrollment in LArch major. Not open to students with credit for 663

**Summer 2025 Term****5630E Advanced Topics in History/Theory****U G 3**

This advanced seminar in landscape history deals with topics in landscape historiography, philosophies of history, major trends in researching and writing about landscapes and environments, and readings and discussions around the current state of the field. Focused topic varies by semester, completion of LARCH 5610 and 5620 strongly recommended prior to enrollment.

Prereq: Honors standing. Repeatable to a maximum of 9 cr hrs.

**Linguistics****LING**

**Summer 2025 Term****3401 Words and Meanings****U 3**

An introduction to semantics focusing on word meanings, meaning in word formation, meaning change over time, and cognitive processes involved in word learning and use.

Prereq: Ling 2000 (Linguist 201), 2000H (201H), or 4000 (601), and English 1110.01 (110.01), 1110.02 (110.02), or 1110.03 (110.03) or equiv.

**Mathematics****MATH****Summer 2025 Term****1161.01 Accelerated Calculus I****U 5**

Differential and integral calculus of one real variable. Intended for students having prior experience with calculus.

Prereq: Math Placement Level L, and previous calculus experience. Not open to students with credit for any Math course numbered 1152 or above, or for the quarter-system Math courses 151.xx and 152.xx, or for any quarter-system course numbered 162 or above. GE quant reason math and logical anyl course. GE foundation math and quant reasoning or data anyl course.

**Summer 2025 Term****1161.02 Accelerated Calculus I for Honors Engineers****U 5**

Differential and integral calculus of one real variable. Intended for students in Fundamentals of Engineering for Honors (FEH).

Prereq: Math Placement Level L, and previous calculus experience. Not open to students with credit for 1152, or 151.xx and 152.xx, or 162 or above. GE quant reason math and logical anyl course. GE foundation math and quant reasoning or data anyl course.

**Summer 2025 Term****2162.01 Accelerated Calculus II****U 5**

Vectors, multivariable calculus, integral theorems.

Prereq: A grade of C- or above in 1161.xx, 1181H, or 4181H. Not open to students with credit for semester Math course above 2162.01, or for any quarter Math course numbered 254.xx or above.

**Summer 2025 Term****2162.02 Accelerated Calculus II for Honors Engineers****U 5**

Accelerated multivariable calculus. Intended for students in Fundamentals of Engineering for Honors (FEH).

Prereq: A grade of C- or above in 1161.xx, 1181H, or 4181H. Not open to students with credit for 2153, or for a semester Math course numbered 2162 or above, or for a quarter Math course numbered 263.xx or above.

**Summer 2025 Term****4545 Analysis Overview****U 4**

Topics in calculus and analysis.

Prereq: A grade of C- or above in 2153, 2162.xx, 2173, 2182H, or 4182H, or credit for 254, 263.xx, 263.01H, 264H, or equiv; and a grade of C- or above in 2568 or 5520H, or equiv; and Grad standing in Statistics or Biostatistics; and permission of department (Statistics or Biostatistics).

**Summer 2025 Term****5660 Integrated Molecular and Cellular Biology for Non-Biologists****U G 5**

Overview of molecular and cellular biology of single cells, tissues, organisms and their interactions, including genetics and biochemistry of single cells.

Prereq: Bio 1101 (101) or permission of instructor. Not open to students with credit for any one of MolGen 5660 (660), 4500 (500), 4606 (606), 605, or 661. Cross-listed in MolGen 5660.

**Materials Science and Engineering****MATSCEN**

**Summer 2025 Term****3189 Professional Practice in Industry****U** ½ - 3

Preparation of a comprehensive report based on employment experience in a co-op or job in industry. Repeatable to a maximum of 8 cr hrs or 8 completions. This course is graded S/U.

**Summer 2025 Term****5541 Structure and Properties of Amorphous Materials****U G** 3

Provide basic knowledge about the structure and properties of oxide, metallic, semiconducting and polymeric glasses emphasizing viscosity, glass transition, structural relaxation and microstructure.

Prereq: 2241, 2251, 3151, and 3261, or permission of instructor. Not open to students with credit for 618.

**Summer 2025 Term****6700 Essentials of Materials Science for High School Educators****G** 2

Provides academic background and quantitative examples to the demonstrations in the ASM Materials Foundation Materials Camps for Teachers. This requires the students in this class to deploy related content in their high school classroom settings.

Prereq: Graduate Non-Degree status, or permission of instructor.

**Modern Greek****MDRNGRK****Summer 2025 Term****2367 Reading and Writing About Issues in Greek-American Society and Culture****U** 3

Exploration of representative features of Greek-American culture and reflection on the social diversity in the United States.

Prereq: English 110, 111 or equiv. Soph standing. Not open to students with credit for 367. GE writing and comm course: level 2 and diversity soc div in the US course.

**Summer 2025 Term****2410 Culture of Contemporary Greece****U** 3

A general survey of socio-cultural trends and issues in modern Greece through close analysis of literature and the other arts.

Prereq: Not open to students with credit for 241. GE cultures and ideas and diversity global studies course. GE foundation historical and cultural studies course.

**Meat Science****MEATSCI****Summer 2025 Term****3191 Internship in Meat Science****U** 2

Supervised preplanned employment experience and/or on-site problem solving study program.

Prereq: Permission of academic advisor. Prereq or concur: FAES 3191. This course is graded S/U. Cross-listed in AnimSci.

**Mechanical Engineering****MECHENG****Summer 2025 Term****2850.02 Numerical Methods in Mechanical Engineering****U** 3

Numerical solutions of nonlinear equations, systems of linear equations, interpolation, curve-fitting, ordinary differential equations.

Prereq: Enrollment as IndEng-BS or ISE-PRE student, or permission of instructor. Prereq or concur: Math 2174 or 2415. Not open to students with credit for 250.



## Autumn 2025 Semester

### 4903.01 ME Capstone Design I: Industry Projects

**U** 2½

First course of 2-semester capstone sequence. Students work on design problems sponsored and/or proposed by industry. Emphasis on problem definition, requirements, and design proposal.

Prereq: 3360, 3671, 3870, and GenEd 1201 or GenEd 2601. Prereq or concur: 4510, and enrollment as a MechEng-BS Student; or permission of instructor.

## Autumn 2025 Semester

### 4904.01 ME Capstone Design I: Humanitarian Projects

**U** 2½

First course of 2-semester capstone sequence. Students work on design problems that have a humanitarian focus. Emphasis on problem definition, requirements, and design proposal.

Prereq: 3360, 3671, 3870, and GenEd 1201 or 2601. Prereq or concur: 4510, and enrollment as a MechEng-BS Student; or permission of instructor. Not open to MechEng pre-majors. This course is progress graded.

## Autumn 2025 Semester

### 4905.01 ME Capstone Design I: Assistive Devices

**U** 2½

First course of 2-semester senior capstone series. Students begin to work on assistive devices for persons with disabilities. Emphasis on problem definition, requirements, and design proposal.

Prereq: 3360, 3671, 3870, and GenEd 1201 or GenEd 2601. Prereq or concur: 4510, and enrollment as a MechEng-BS Student; or permission of instructor. Not open to MechEng pre-majors.

## Summer 2025 Term

### 4905.02 ME Capstone Design II: Assistive Devices

**U** 2½

Second course of 2-semester senior capstone series. Complete work on assistive devices for persons with disabilities. Emphasis on detailed design, prototype, evaluation, and documentation.

Prereq: 4905.01, and enrollment as MechEng-BS student (No ME pre-majors can enroll in this course); or permission of instructor.

## Summer 2025 Term

### 5180 Mechanics of Biomolecular Systems

**U G** 3

Introduction to biomolecules and systems in the context of cellular functions. In particular the course focuses on the physical properties of biomolecules and the physical interactions that mediate their functions.

Prereq: Sr or Grad standing in Engineering, or permission of instructor. Not open to students with credit for 694E (Spring 2010).

## Autumn 2025 Semester

### 5241 Engineering Acoustics

**U G** 3

Acoustics applications survey. Wave propagation phenomena. Introduction to human hearing. Mathematics review. Acoustic wave equation, propagation, and metrics. Instrumentation for and evaluation of acoustic measurements. Understanding acoustic sources and sound radiation characteristics. Introductory architectural acoustics, engineering noise control, and psychoacoustics.

Prereq: 3260, or Grad standing, or permission of instructor.

## Summer 2025 Term

### 5531 Automotive Powertrain Laboratory

**U G** 3

This course focuses on analysis and testing of advanced automotive systems. These systems include advanced powertrain components like turbocharged GDI engines, electric powertrain components like electric motors, and autonomous vehicle sensing technologies like radar and lidar. Students will conduct labs and use supplied data to conduct analysis typical of practicing automotive engineers.

Prereq: 3870, or Grad standing in Engr, or permission of instructor.

## Summer 2025 Term

### 5700 Introduction to Musculoskeletal Biomechanics

**U G** 3

Introduction to field of musculoskeletal biomechanics at a level appropriate for advanced undergraduates and early graduate students. Fundamental anatomy and physiology. Mechanics of muscle, tendon, ligament, meniscus, bone. Equations of motion for movement. Introduction to experimental methods.

Prereq: 3670, or permission of instructor. Not open to students with credit for 6700.

#### Summer 2025 Term

##### 6700 Musculoskeletal Biomechanics

G 3

Fundamental anatomy and physiology. Mechanics of muscle, tendon, ligament, meniscus, and bone. Equations of motion for human movement. Introduction to experimental methods in musculoskeletal biomechanics.

Prereq: Grad standing in MechEng or BiomedE, or permission of instructor. Not open to students with credit for 687 or 5700.

#### Summer 2025 Term

##### 7290 Digital Control Engineering

G 3

Theory of digital control engineering and its applications to the control of engineering systems including machines, vehicles, and processes.

Prereq: 3360 and 3361, or 482 and 571, or Grad standing in MechEng, or permission of instructor. Not open to students with credit for 773.

#### Summer 2025 Term

##### 7385 Advanced Methods in the Dynamics and Control of Human and Animal Movement

G 3

Mathematical ideas from control theory, optimization, nonlinear dynamics, and numerical computation that will be used to understand human, animal, and movement behavior and design.

Prereq: 2030 (430), Math 2174, 2415 (415), 4568 (568), or 571, or Grad standing in Engineering.

#### Autumn 2025 Semester

##### 7527.01 Jet Propulsion

G 3

Characteristics and performance of air breathing flight vehicle power plants and their components (inlets, compressors, combustors, turbines, and nozzles).

Prereq: Grad standing in Mechanical or Aerospace Engineering. Not open to students in the PMAPE-MAA program, or to students with credit for 7527.02 or AeroEng 8851.

#### Summer 2025 Term

##### 8250 Vibration of Continuous Systems

G 3

Analysis of one, two and three dimensional continuous vibratory systems including strings, beams, membranes, plates and shells using exact and approximate methods with various boundaries.

Prereq: 4030 (430) or 7250 (731), and Math 2255 (255) or equiv; or permission of instructor. Not open to students with credit for 734.

#### Summer 2025 Term

##### 8603 Irreversible Thermodynamics and Transport of Charge, Heat, and Spin

G 3

Ohm's, Fourier and Fick's laws, which relate linearly the transport of electrical charge, heat and matter to voltages, temperatures and concentrations gradients, are generalized in the framework of irreversible thermodynamics. The microscopic mechanisms of transport of heat, electrical charge and magnetization by elemental excitations (electrons, phonons and magnons) are explained.

Prereq: 8503 or statistical mechanics, and permission of instructor.

## Medicine, College of

MEDCOLL

#### Summer 2025 Term

##### 5000 Responsible Conduct of Research & Research Ethics

U G M 1

Within research, ethics is considered to be the safeguard of both the researcher and the participant. This course will examine cases which hold to demonstrate this statement. It will analyze a complex system of policies and regulations that govern human subject research and scientific integrity. This class also satisfies the basic components of Responsible Conduct of Research (RCR) education.

This course is graded S/U.

#### Summer 2025 Term

##### 6100 Global Healthcare Innovation

G 1

The course introduces graduate and professional students to the breadth and diversity of global healthcare innovations through guided discussion and case study application.

**Summer 2025 Term****6300 Primary Care Delivery across the Globe****G 3**

The course provides a comprehensive overview of the multifaceted aspects of primary care delivery and financing throughout the world. The combined global impact of access to high quality and comprehensive primary care will be explored.

**Microbiology****MICRBIO****Summer 2025 Term****5270 Antibiotics and Microbial Natural Products****U G 3**

Microorganisms are responsible for producing a vast array of chemically diverse natural product small molecules. The unique biological and chemical properties of many of these small molecules have afforded many valuable applications throughout medicine, agriculture, and biotechnology. Here, we cover the biology behind the chemistry of these molecules and their role in human medicine.

Prereq: A grade of C- or above in 4120, Biochem 5614, or Phr 4000; or Grad standing; or permission of instructor. Not open to students with credit for Phr 5270. Cross-listed in Phr.

**Nuclear Engineering****NUCLREN****Summer 2025 Term****6726 Reactor Dynamics Laboratory****G 2**

Measurement of reactor characteristics and operational parameters using the Ohio State University Research Reactor.

Prereq: 6708 or 705. Prereq or concur: 6725, or Grad standing; or permission of instructor. Not open to students with credit for 744.

**Summer 2025 Term****6766 Nuclear Engineering Design****G 2**

A practical experience in the design process within the context of nuclear engineering. Students will be organized into groups. A design project will be specified. Each group will produce and present a final design report.

Prereq: NuclrEn MS Core, or permission of instructor.

**Nursing****NURSING****Summer 2025 Term****2100 Introduction to Professional Nursing: Concepts and Practice****U 3**

Introduction to professional Nursing and the health care delivery system, its history and evolution, and the examination of the legal and ethical basis for professional practice.

Prereq: Admission to the Nursing major. Not open to students with credit for 301.01 or 301.02 or 301.03.

**Summer 2025 Term****2270 Nursing Care of Adults and Older Adults I****U 5**

Nursing knowledge essential to caring for adults and older adults with emphasis on health promotion, risk assessment, disease prevention, and health problems.

Prereq: 2100, 2410, and 2450. Not open to students with credit for 402 and 403.

**Summer 2025 Term****2410 Health Assessment****U 3**

Introduction to the foundational health assessment concepts of Nursing and the assessment skills required in the provision of Nursing care across the lifespan.

Prereq: Admission to the Nursing major. Not open to students with credit for 301.01 or 301.02 or 301.03.

**Summer 2025 Term****2460 Introduction to Therapeutic Communication for Health Professionals****U 3**

Introduction to the process of effective communication and collaboration in health care settings.  
Prereq: Admission to the Nursing major. Not open to students with credit for 301.01 or 301.02 or 301.03.

**Summer 2025 Term****7299.04 Advanced Practice Nursing: Dual Nurse-Midwifery & Women's Health Clinical Practicum IV****G 1 - 11**

Integration of theories, research findings, skills, and interventions including pharmacological management, during the provision of advanced practice nursing/nurse-midwifery care to women and their families.  
Prereq: 7299.03. Not open to students with credit for 859.

**Summer 2025 Term****7530 Instructional Strategies in Clinical Teaching****G 3**

The primary focus of this course is the differentiation of best pedagogical practices for effective teaching in clinical settings.  
Prereq: Grad standing and active Registered Nurse (RN) licensure.

**Summer 2025 Term****7536 Principles of Instructional Design for Nurses****G 3**

Theoretical and practical approaches to creation of learning experiences for nursing and health education with an emphasis on backward design and evidence-based instructional design strategies.  
Prereq: Grad standing in Nursing; or permission of instructor.

**Summer 2025 Term****7537 Assessment and Evaluation in Nursing Education****G 3**

Principles and processes involved in assessment and evaluation of student learning, courses, curricula, program outcomes, and teaching practices.  
Prereq: Grad standing in Nursing, or permission of instructor.

**Summer 2025 Term****7538 Teaching in Nursing****G 3**

Application of best pedagogical practices in selected Nursing education experiences.  
Prereq: 7530, 7536, and 7537; or permission of instructor.

**Summer 2025 Term****8891.03 Critical and Sensitive Periods for Health Development****G 3**

Focus on the effects of social, psychological, biological, and behavioral factors that influence health status (health determinants) as they occur across the lifespan with a particular focus on critical and sensitive periods of health development. Examination of health outcomes under varying conditions and across populations.  
Prereq: 8441.

**Pathology****PATHOL****Summer 2025 Term****7847 Cellular Mechanisms and Pathogenesis of Inflammation****G 2**

Inflammatory processes in the human host due to interaction with viruses, bacteria, parasites, foreign antigens, or physical trauma and new immunological therapeutic strategies being developed.  
Prereq: MVImg 701 or Micrbiol 701, or permission of instructor. Not open to students with credit for MVImg 847.

**Philosophy****PHILOS**

**Summer 2025 Term****3111 Introduction to Jewish Philosophy****U 3**

A general introduction to major figures and trends in medieval, modern, and contemporary Jewish philosophy; emphasis on Philo, Saadia, Maimonides, Spinoza, Mendelssohn, and Buber.

Prereq: Not open to students with credit for 321 and JewshSt 3111. GE cultures and ideas course. Cross-listed in JewshSt.

**Summer 2025 Term****3120 Engaging Time: Philosophical Dimensions of Temporality****U 3**

This course introduces the philosophical concept of time. Topics may include: how we measure time; whether time is real or is it the result of subjective perception; God's knowledge of the future; and, the coherence of 'time-travel'.

Prereq: Not open to students with credit for Hebrew 3120. GE cultures and ideas course.

**Pharmacy****PHR****Summer 2025 Term****5000 Interdisciplinary Case Management for Working with Underserved Populations****U G P 2**

This course will provide students the opportunity to collaborate with students from other health care professions including pharmacy, health and rehabilitation sciences, nursing, medicine and social work. The students will use a problem-based learning approach to patient care in community health, focusing on populations, living in poverty, with complex healthcare needs.

Prereq: Jr or Sr standing in the BSPS program, enrollment in the PharmD program, or permission of instructor.

Repeatable to a maximum of 6 cr hrs. This course is graded S/U. Cross-listed in HthRhSc 5000, Nursing 5000, and SocWork 5018.

**Summer 2025 Term****5525 Advocacy in Pharmacy****U P 1**

The goal of the Advocacy in Pharmacy elective is to build a foundation of knowledge of historical and current state and federal issues that impact the practice of pharmacy and cultivate skills to become effective changemakers in the profession. Additionally, students will engage in discussion and joint learning activities with students from other schools and colleges of pharmacy in Ohio.

Prereq: Enrollment in BSPS program or Doctor of Pharmacy program, or permission of instructor.

**Summer 2025 Term****5540 Topics in Clinical Pharmacy Research****U P 2**

Introduction to conducting research in clinical pharmacy including research design issues and to ethical considerations. Faculty conducting research in various populations will discuss their research, followed by class discussion.

Prereq: 4000, and enrollment in the PharmD or BSPS program. Not open to students with credit for 5170. This course is graded S/U.

**Summer 2025 Term****7270 Introduction to Bioinformatics and Genomic Data Analyses****G 3**

There is a need to train biomedical researchers to undertake cutting-edge cellular experiments that apply genomic-based approaches coupled with computational and statistical analyses to reveal novel biological understanding. This course was designed to develop bioinformatic skills and abilities and to understand genomic data in graduate students who have either little or no previous experience.

**Summer 2025 Term****7280 Medical Outreach Trips: Making the Most of Service and Learning in Central America****P 2**

Pharmacy practice finds its place in international healthcare. The goal of this course is to educate the student on medical outreach and holistically prepare the student for service-learning opportunities primarily focused in Honduras.

**Summer 2025 Term****7893      Phytochemical Analysis of Natural Products****G            2**

This course is intended to provide graduate students with the basic skills to be able to select and apply proper techniques to natural product samples for drug discovery, method design, and validation purposes.

**Summer 2025 Term****8070      Advanced Drug Delivery Systems****G            2**

Topics on drug delivery systems with emphasis on tumor targeted delivery and nanovehicles.  
Prereq: Grad standing, or permission of instructor.

**Physics****PHYSICS****Summer 2025 Term****5710      Advanced Engineering Physics Laboratory****U G        3**

Lab course for eng physics majors. Experiments in optics, materials, and nuclear physics are carried out in a team approach, emphasizing DAQ methods and experimental design, analysis of collected data, and formal presentation of experimental results.  
Prereq: 3700 (416) and 2301 (263), and 5400 (555) or 5400H, and 5500 (631) or 5500H. Not open to students with credit for 616.

**Summer 2025 Term****6201      Grad Holography I****G            3**

Introduction to the theory and basic technique of 3D image making. Students will construct a diode laser and use it to make holograms.. For grad students in the grad specialization "Analysis of Material Culture".  
Prereq: Grad standing.

**Political Science****POLITSC****Summer 2025 Term****4126      Ohio Politics****U            3**

Examination of state politics with special reference to Ohio.  
Prereq: Not open to students with credit for 506.

**Psychology****PSYCH****Summer 2025 Term****2367.02    Abnormal Psychology Analysis****U            3**

Major psychological disorders, such as anxiety, mood, & personality disorders, will be clinically described & diagnostically defined. Students will compare & contrast symptoms of psychological disorders with non-disordered behaviors, cognitions, & affects. The emphasis is on critical thinking & analysis of theories, research methods, & empirical findings regarding psychopathology & its treatment.  
Prereq: 1100 (100) or 1100H (100H), and English 1110.01, 1110.01H, 1110.02, 1110.02H, 1110.03, 110, 111, or equiv; and Soph standing or above. Not open to students with credit for 3331 (331) or 3331H (331H). GE writing and comm course: level 2.

**Summer 2025 Term****3321H      Quantitative and Statistical Methods in Psychology****U            3**

A concentrated examination of applications of statistical tools in inference in contemporary psychology; hypothesis testing, regression, correlation, and analysis of variance.  
Prereq: Honors standing, and 1100 (100) or 1100H (100H), and a grade of B or above in 2220 (220) or 2220H (220H). Not open to students with credit for 321 or 321H.

**Summer 2025 Term****4508H Psychology of Judgment and Decision-Making****U 3**

An overview of current models and empirical research on cognitive processes in human decision-making and judgment under risk or uncertainty.

Prereq: Honors standing, and a grade of C- or above in 2220 and 2300. Not open to students with credit for 4508 (508) or 508H.

**Summer 2025 Term****4518 Attitudes: Structure, Function, and Consequences****U 3**

Survey of theory and evidence related to the structure and functional value of attitudes and their effects on information processing, judgments, and behavior.

Prereq: A grade of C- or above in 2220, 2300, and 2367 prior to SU13, 2367.01, 3325, 3325H, or 3375. Not open to students with credit for 518.

**Summer 2025 Term****4597.01 Contemporary World: Aging, Health, and Psychological Functioning in the Modern World****U 3**

Addresses primary psychological, social, physical and economic changes related to aging and ramifications of these changes.

Prereq: 1100 (100), 1100H (100H), or 1100E (100E), and Jr or Sr standing; or permission of instructor. Not open to students with credit for 597.03. GE cross-disciplinary seminar course.

**Summer 2025 Term****6854 Lifespan Developmental Psychopathology II****G 3**

Part two of a two-course sequence surveying the major psychopathological disorders across the lifespan from a developmental psychopathology perspective.

Prereq: Not open to students with credit for 854.

**Public Health: Biostatistics****PUBHBIO****Summer 2025 Term****8230 Advanced Longitudinal Data Analysis****G 3**

Classical and modern statistical approaches for continuous and discrete longitudinal data. Random effects and growth curve models, measurement error, generalized estimating equations, estimation with missing data, multivariate longitudinal data.

Prereq: Stat 6802 (622) and 6950 (645). Not open to students with credit for Stat 7470 (726). Cross-listed in Stat 7470 (726).

**Public Health: Environmental Health Sciences****PUBHEHS****Summer 2025 Term****7899 Seminar in Environmental Health Sciences****G 1 - 3**

Seminar on topics that are relevant to students enrolled in programs in the division of environmental health sciences.

Repeatable to a maximum of 9 cr hrs or 9 completions. This course is graded S/U.

**Public Health: Epidemiology****PUBHEPI****Summer 2025 Term****3410H Honors Case Studies in Public Health****U 3**

This is an advanced undergraduate course in epidemiology that is designed for Honors students in Public Health or a related field. Students will learn about how epidemiology is used in the field of Public Health through a case study approach.

Prereq: Honors standing, and 2410.

**Summer 2025 Term****8899.01 Professional Skills for Public Health Doctoral Students****G 1**

To facilitate professional development of PhD students in the Division of Epidemiology. The course will focus on goal setting, mentorship, scientific writing, and oral presentations.  
Repeatable to a maximum of 9 cr hrs or 9 completions. This course is graded S/U.

**Summer 2025 Term****8899.03 Epidemiology: History, Social Context, and Ethics****G 1**

Designed for first year PhD students in the Division of Epidemiology. The purpose of the course is to provide students with an understanding of the history of epidemiology, including its development to its current form.  
Prereq: Enrollment in Public Health PhD program. Repeatable to a maximum of 2 cr hrs. This course is graded S/U.

**Public Health: Health Behavior & Health Promotion****PUBHHBP****Summer 2025 Term****5520 Public Health in Action****U G 2**

Directed service learning group project in partnership with a public health agency.

**Summer 2025 Term****7550 Special Topics in Health Behavior and Health Promotion****G 1 - 6**

Regular class on topics that are relevant to students enrolled in programs in the Division of Health Behavior and Health Promotion.  
Prereq: Grad standing. Repeatable to a maximum of 12 cr hrs or 6 completions.

**Summer 2025 Term****7552 Substance Abuse Prevention****G 2**

History of substance abuse prevention efforts; theoretical foundations and elements of successful programs.  
Prereq: Enrollment in Public Health, and Grad standing; or permission of instructor. Not open to students with credit for 826.

**Summer 2025 Term****7564 A Public Health Approach to Adolescent Health****G 2**

Focuses on the health of adolescents in the United States. Emphasis is on examining health and risk behaviors from developmental & contextual perspectives with reference to policies and programs for preventing health problems and promoting the well-being of this population.

**Public Health: Health Services Management & Policy****PUBHHMP****Summer 2025 Term****7612 Food and Drug Law****G 3**

This course explores various FDA law and policy issues related to the regulation of food, drugs, biologics, devices, and tobacco products.  
Cross-listed in Law 8811.

**Summer 2025 Term****7613 Tobacco Regulation and Policy****G 2**

This course examines the regulation of tobacco, with a focus on the role of the US FDA. This course highlights the history, significant provisions, and effects of the 2009 Tobacco Control Act, as well as the vital role that public health researchers and professionals play in influencing how the FDA implements the Act.

**Religious Studies****RELSTDS**



**Summer 2025 Term****3674 African Religions****U 3**

Survey of African traditional religions and their interaction with Islam and Christianity in Africa and the diaspora; emphasis on cosmologies, myth, ritual, ethics, and witchcraft. Comparative Studies 2370 (270) or 2370H (270H) recommended.

Prereq: English 1110 (110) or equiv. Not open to students with credit for CompStd (324) or RelStd 324.

**Rural Sociology****RURLSOC****Summer 2025 Term****3320 Amish Society****U 3**

Analysis of the historical, social, religious, economic and cultural dimensions of the Amish.

Prereq: Not open to students with credit for 5520.

**Summer 2025 Term****6500 Rural Poverty****G 3**

Evaluation of the factors which create and maintain poverty and inequality, with focus on the rural U.S., developing nations, and the comparative analysis of spatial inequalities.

\* Sp Sem (odd years). Prereq: 15 cr hrs in RurlSoc or related social sciences, or Grad standing. Not open to students with credit for 666.

**Summer 2025 Term****7550 Rural Community Development in Theory and Practice****G 3**

Theoretical foundations of rural community development; contemporary community development issues; change processes, strategies, and practices.

\* Sp Sem. (odd years). Prereq: Grad standing. Not open to students with credit for 888.

**Summer 2025 Term****8500 Development Sociology in Theory and Practice****G 3**

Overview of sociological principles, theories and research in the evolution of international development and globalization practices, objectives, and policies. Contemporary issues in development and globalization.

\* Sp Sem (even years). Prereq: Grad standing. Not open to students with credit for 892.

**Slavic Languages and Literatures****SLAVIC****Summer 2025 Term****2367 East European Immigrant Experience in America****U 3**

Experiences of East European immigrants; assimilation vs. multiculturalism, American Dream, stereotypes, identity formation; development of written & oral communication skills. Taught in English.

Prereq: Level 1 writing course (1110), or English 110 or 111 with permission of instructor; Soph standing. Not open to students with credit for 367. GE writing and comm course: level 2, and diversity soc div in the US course.

**Summer 2025 Term****4597 Politics of Language in Southeast Europe****U 3**

Social/political import of language in Balkans and neighboring countries; role of language in ethnic identities; manipulation of language to shape political and social structures. Taught in English.

Prereq: Jr or Sr standing. GE diversity global studies and cross-disciplinary seminar course.

**Sociology****SOCIOL**

**Summer 2025 Term****4000E Social Science Business Collaborative: A Service Learning Approach****U 3**

Sociology 4000E is an Honors Embedded course in which students learn to develop research projects through collaboration with a local business on a service project. Uses University resources to address community issues, facilitate data collection, learn project management and present research findings in academic and applied settings and learn through improving the community.

Prereq: Honors standing, and 1101; or permission of instructor. Repeatable to a maximum of 6 cr hrs. GE service learning course.

**Summer 2025 Term****4000S Social Science Business Collaborative: A Service Learning Approach****U 3**

Sociology 4000S is course that helps students develop research projects through collaboration with a local business to work on a service project; link university resources to bear on community issues, facilitate data collection, learn project management, present research findings in academic and applied settings, learn through improving the community.

Prereq: 1101, or permission of instructor. Repeatable to a maximum of 6 cr hrs. GE service learning course.

**Speech and Hearing Science****SPHHRNG****Summer 2025 Term****7843 Advanced Practicum in Audiology****G 3**

Students are placed in local audiology clinics, medical practices, and medical centers to put into practice skills learned in the classroom.

Prereq: Satisfactory completion of second year of AuD program. Repeatable to a maximum of 6 cr hrs or 2 completions. This course is graded S/U.

**Statistics****STAT****Summer 2025 Term****3460 Principles of Statistics for Engineers****U 3**

Introduction to probability, random variables, distributions, expected values; confidence intervals; paired and unpaired t-tests; linear regression; analysis of variance; blocked experiments; fractional factorial experiments; quality control charts.

Prereq: Math 1152, 1161.xx, 1172, 1181H, 153, or 254, or equiv, or permission of instructor. Not open to students with credit for 3450, 3470, 427, or 428. GE data anyl course. GE foundation math and quant reasoning or data anyl course.

**Summer 2025 Term****6740 Data Management and Graphics for Statistical Analyses****G 3**

Data manipulation for statistical analyses, missing data calculations, merging and transporting data sets, formatting data analysis results, using relational databases and SQL, character data, graphical presentation of data, and macro programming. No prior knowledge of SAS programming is required.

Prereq: Not open to students with credit for 5740.

**Theatre****THEATRE****Summer 2025 Term****2000.21 Technical Production Practicum: Publicity****U 1**

Provides experience in technical production activities. Repeatable to a maximum of 6 cr hrs or 6 completions.

**Summer 2025 Term****2367.02 African American Theatre History****U 3**

Examination of aesthetic and sociological evolution in America of African American theatre, literature, and film. GEL students should complete English 1110 prior to enrollment.  
Prereq: EduTL 1902, 1902.04, IELP WRITE score of 80, English Placement Level 4, or English 1110.xx or equivalent. GE writing and comm course: level 2 and lit and diversity soc div in the US course. GE foundation writing and info literacy and lit, vis and performing arts course.

**Summer 2025 Term****5225 Period Styles for Production****U G 3**

An exploration of period styles from ancient to contemporary; emphasis on architecture, clothing, furniture, jewelry, textiles, and decorative objects.

**Summer 2025 Term****6911 New Play Development for the Actor****G 3**

Development of new works and fundamentals of playwriting for the actor.

**Summer 2025 Term****7832 Viewpoints and Suzuki Physical Acting****G 3**

Viewpoints training: Method of improvisation that builds ensembles, while strengthening acting, directing and choreography. Suzuki, a martial arts style of physical training, will be incorporated.  
Prereq: Not open to students with credit for 773 and 887.

**Summer 2025 Term****8000.04 Advanced Studies: Stage Design****G 1 - 5**

Advanced Studies in Stage Design.  
Prereq: Permission of instructor. Repeatable to a maximum of 32 cr hrs or 8 completions.

**Veterinary Biosciences****VETBIOS****Summer 2025 Term****7700 Functional Neuroanatomy****V 2**

Structure and function of the Central Nervous System (CNS) studied through discussion and dissection with emphasis on three-dimensional relationships of selected brain and spinal cord regions.  
Prereq: VMColl 603. Not open to students with credit for 700.

**Veterinary Clinical Sciences****VETCLIN****Summer 2025 Term****7711.03 Small Animal Internal Medicine: Hematology and Oncology****G 1**

This course will provide in depth discussion of our current understanding of bone marrow physiology and associated diseases, current understanding of coagulation and platelet function, and cover relevant topics in oncology.  
Prereq: Permission of instructor.

**Summer 2025 Term****7719 Clinical Problem Solving and Treatment in Small Animals II - Medical Subspecialties****V 2**

Problem-oriented course using case discussions to teach the diagnostic and therapeutic approach to the most common clinical problems in small animal internal medicine.  
Prereq: 3rd yr standing in Veterinary Medicine program. Not open to students with credit for 719.

**Summer 2025 Term****7793 Lectures in Equine Theriogenology****G V 2**

Focuses on the pathophysiology of common reproductive disorders and how to devise plans to treat common reproductive disorders in horses.

Prereq: 2nd or 3rd yr standing in the Veterinary Medicine program or grad standing. Not open to students with credit for 791.01.

**Summer 2025 Term****8600.01 Advanced Topics in Comparative Behavioral Medicine****G 1**

Course familiarizes the student with comparative behavioral medicine by critical review and evaluation of the current and past literature in both human and veterinary medicine with emphasis on study design, methodology, and data interpretation.

Prereq: DVM or equiv, or permission of instructor.

**Summer 2025 Term****8600.02 Advanced Topics in Comparative Behavioral Medicine****G 1**

Course familiarizes the student with comparative behavioral medicine by critical review and evaluation of the current and past literature in both human and veterinary medicine with emphasis on study design, methodology, and data interpretation.

Prereq: DVM or equiv, or permission of instructor. Repeatable to a maximum of 8 cr hrs. This course is graded S/U.

**Summer 2025 Term****8820 Advanced Small Animal Internal Medicine - Endocrinology****G 2**

This course will provide in depth discussion of 1) physiology (and pathophysiology) of endocrine pathways, and 2) how to effectively diagnose various endocrinopathies; 3) how to most effectively manage various endocrinopathies in small animals.

**Summer 2025 Term****8822.11 Advanced Veterinary Internal Medicine: Comparative Structure and Function of the Integument****G 2**

Normal anatomy, physiology and functions of the skin and related structures.

Prereq: DVM or equiv; or permission of instructor.

**Summer 2025 Term****8833.01 Advanced Veterinary Surgery: Anesthesia & Critical Care****G 2**

Review of physiology and medical intervention for selected topics including cardiorespiratory resuscitation, sepsis, and ischemia/reperfusion in veterinary anesthesia and critical care; comparison to similar topics in human medicine when appropriate.

Prereq: DVM or equiv; or permission of instructor.

**Summer 2025 Term****8833.03 Advanced Veterinary Surgery: Respiratory and Thoracic Surgery****G 3**

Fundamental respiratory pathophysiology, diagnostic techniques for respiratory disease, and respiratory and thoracic surgery methodology in comparative veterinary surgical sciences.

Prereq: DVM or equiv, or permission of instructor.

**Summer 2025 Term****8855.02 Advanced Veterinary Surgery: Gastrointestinal Surgery****G 2**

Covers advanced large animal surgical techniques of the gastrointestinal tract. Current literature will be reviewed and pathophysiology and medical case management will also be included in the lecture series.

**Summer 2025 Term****8894.03 Advanced Comparative Clinical Ophthalmology III****G 1**

Familiarize the student with comparative ophthalmology. Case material will be used to enhance student knowledge of diseases and treatment of the anterior and posterior segment and ocular adnexa. Prereq: DVM or equiv; or permission of instructor.

**Summer 2025 Term****8894.08 Radiology Known Case Conference Advanced I****G 2**

Teach and train radiology graduate students the correct approach to diagnostic image interpretation during their three year program. Radiology graduate students are expected to formulate a ranked list of differential diagnoses and discuss other diagnostic modalities that may aid in further determining a diagnosis. Discussion of pathophysiology will be included.

Prereq: 8894.04, 8894.05, 8894.06, and 8894.07, and Veterinary Diagnostic Imaging residency.

**Summer 2025 Term****8894.09 Radiology Known Case Conference Advanced II****G 2**

Teach and train radiology graduate students the correct approach to diagnostic image interpretation during their three year program. Radiology graduate students are expected to formulate a ranked list of differential diagnoses and discuss other diagnostic modalities that may aid in further determining a diagnosis. Discussion of pathophysiology will be included.

Prereq: 8894.04, 8894.05, 8894.06, 8894.07, and 8894.08, and Veterinary Diagnostic Imaging Residency.

**Summer 2025 Term****8895.04 Advanced Topics in comparative Diagnostic Imaging****G 1**

Familiarize radiology residents and graduate students with comparative diagnostic imaging by critical review of the biomedical literature. Emphasis on evaluation of study design, methodology, and data interpretation.

Prereq: DVM or equiv; or permission of instructor. Repeatable to a maximum of 9 cr hrs. This course is graded S/U.

**Summer 2025 Term****8895.12 Advanced Comparative Ophthalmology****G 1**

Familiarize the student with comparative ophthalmology by critical review and evaluation of the current and past biomedical literature with emphasis on study design, methodology, and data interpretation.

Prereq: DVM or equiv; or permission of instructor. Repeatable to a maximum of 9 cr hrs. This course is graded S/U.

**Summer 2025 Term****8895.13 Journal Review in Comparative Emergency and Critical Care****G 1**

Familiarize the student with comparative Emergency and Critical Care. The current and past primary literature from selected peer-reviewed journals will be critically reviewed with regards to study design, methodology and data interpretation.

Prereq: DVMs in residency/graduate programs, or by petition of the team leader. Repeatable to a maximum of 6 cr hrs. This course is graded S/U.

**Summer 2025 Term****8896.09 Comparative Ocular Histology I****G 1**

Familiarizes the student with comparative ocular histology and ocular histopathology. Illustrative histopathologic case material will be used to facilitate discussion of disease processes.

Prereq: DVM or equivalent, or permission of instructor.

**Summer 2025 Term****8896.11 Comparative Ocular Histology III****G 1**

Familiarizes the student with comparative ocular histology and ocular histopathology. Illustrative histopathologic case material will be used to facilitate discussion of diseases processes.

Prereq: DVM or equivalent, or permission of instructor.

**Summer 2025 Term****8896.17 Journal Review in Comparative Emergency and Critical Care****G 1**

Familiarize the student with comparative Emergency and Critical Care. The current and past primary literature from selected peer-reviewed journals will be critically reviewed with regards to study design, methodology and data interpretation.

Prereq: DVMs in residency/graduate programs, or by petition of the team leader.

**Summer 2025 Term****8896.18 Book Club in Comparative Emergency and Critical Care 1 - Renal Physiology****G 1**

Covers the principles and practice of applied renal physiology as relevant to residents in the Emergency and Critical Care residency program.

Prereq: DVMs in residency/graduate programs, or by petition of the team leader.

**Summer 2025 Term****8896.19 Book Club in Comparative Emergency and Critical Care 2-Coagulation and Specific Systems****G 1**

Covers basic and applied physiology of coagulation/coagulation disorders. It will also cover applied systems physiology (GI, reproductive, neurologic, ophthalmologic) and nutrition as relevant to Critical Care Medicine.

Prereq: DVMs in residency/graduate programs, or by petition of the team leader.

**Summer 2025 Term****8896.22 Book Club in Comparative Emergency and Critical Care 5-Applied Cardiovascular Physiology****G 1**

Covers the principles and practice of applied cardiovascular physiology and therapeutics as relevant to residents in the Emergency and Critical Care residency program.

Prereq: DVMs in residency/Grad programs, or by petition of the team leader.

**Summer 2025 Term****8896.23 Book Club in Comparative Emergency and Critical Care 6-Mech Ventilation, Monitoring, Inflammation****G 1**

Covers the principles and practice of patient monitoring in the ICU, the use of mechanical ventilation, and the pathophysiology of inflammation as relevant to residents in the Emergency and Critical Care residency program.

Prereq: DVMs in residency/Grad programs, or by petition of the team leader.

**Summer 2025 Term****8896.25 Advanced Topics in Anesthesiology: Respiratory Physiology****G 1**

A small group course based on discussion of respiratory physiology as it pertains to anesthetic practice. Course format involves review and presentation of information from "Respiratory Physiology" by West, as well as other textbooks and journals.

Prereq: Veterinary Anesthesiology resident, or permission of team leader.

**Summer 2025 Term****8897 Advanced topics in veterinary neurology: Neuromuscular disease****G 3**

This course is designed to provide advanced, graduate level exposure to electrodiagnostic techniques and diagnosis and treatment of neuromuscular diseases in veterinary medicine.

Prereq: Enrollment in the OSU CVM Veterinary Neurology combined residency and graduate program; or permission of the instructor.

**Veterinary Preventive Medicine****VETPREV****Summer 2025 Term****7612 Nutrition of Food Animals and Equine****V 3**

Nutritional diseases and feeding practices for food-producing animals and equine.

Prereq: First-year, second semester, or second-year standing in veterinary medicine program.

**Summer 2025 Term****7730 Emerging Zoonotic Diseases in a Global Context****G V 2**

Overview of the most important emerging zoonotic diseases in different geographical regions of the world, focusing in their local epidemiology, recent outbreaks, prevention, and potential impact in the United States. Prereq: 1st (second semester), 2nd, or 3rd yr standing in Veterinary Medicine program; or grad standing. Not open to students with credit for 730.

**Summer 2025 Term****7735 Veterinary Practice Management****G V 1**

Provides business skills, knowledge, and information necessary to successfully operate a veterinary practice. Prereq: Enrollment in DVM program. Not open to students with credit for 750.

**Summer 2025 Term****7775 Interactive Experiences in Laboratory Animal Medicine****V 1**

Provides students with an opportunity to obtain practical and clinical experience with traditional laboratory animals and pocket pet species. Coursework is primarily hands-on with supplemental online and didactic material.

Prereq: 7720, and Professional standing in Veterinary Medicine program.

**Welding Engineering****WELDENG****Summer 2025 Term****4003 Principles of Welding Process Control****U 3**

Study of principles and practical application of control systems and control elements of welding processes.

Prereq: 4001, and enrollment in the WeldEng-BS or MatScEn-BS major; or permission of instructor.

**Summer 2025 Term****4021 Solid-State Welding/Joining****U 3**

The welding and joining of materials in the solid state with emphasis on physical processes and metallurgical principles.

Prereq: 4002, and enrollment in the WeldEng-BS or MatScEn-BS major; or permission of instructor.

**Summer 2025 Term****4303 Ultrasonic Nondestructive Testing****U 3**

Principles of ultrasonic wave generation, interaction of ultrasonic waves with material structures with emphasis on characterization of material properties, and quantitative ultrasonic evaluation of material discontinuities.

Prereq: 4103, and enrollment as WeldEng-BS major; or permission of instructor. Not open to students with credit for 732.

**Summer 2025 Term****4407 Adhesive Bonding and Mechanical Joining of Plastics****U 2**

Fundamentals of adhesive bonding science and technology and methods for mechanical joining of plastics including fasteners, snap-fits, press-fits, swaging, and staking.

Prereq: 4201, and enrollment as a WeldEng-BS major; or permission of instructor. Not open to students with credit for 707.

**Summer 2025 Term****7303 Ultrasonic Nondestructive Testing****G 3**

Principles of ultrasonic wave generation, interaction of ultrasonic waves with material structures with emphasis on characterization of material properties, and quantitative ultrasonic evaluation of material discontinuities.

Prereq: Grad standing, or permission of instructor. Not open to students with credit for 4303 (732).

**Summer 2025 Term****7407      Adhesive Bonding and Mechanical Joining of Plastics****G            2**

Fundamentals of adhesive bonding science and technology and methods for mechanical joining of plastics including fasteners, snap-fits, press-fits, swaging, and staking.

Prereq: Grad standing, or permission of instructor. Not open to students with credit for 4407 (707).

## Remove from Limbo

**Computer Science and Engineering****CSE****Autumn 2025 Semester****5329      Intermediate Studies in Computation Theory****U G            2 - 3**

Intermediate-level topics in computation theory.

Repeatable to a maximum of 12 cr hrs or 6 completions

**Autumn 2025 Semester****5339      Intermediate Studies in Algorithms****U G            2 - 3**

Intermediate-level topics in algorithms.

Repeatable to a maximum of 12 cr hrs or 6 completions.

**Law****LAW****Spring 2026 Semester****6600      Exploring the Lawyer-Client Relationship****L            1**

Introduction to skills, theory, and ethics that are central to the lawyer-client relationship, using simulation exercises to explore interviewing, counseling, decision making, and negotiating.

This course is graded S/U.

**Theatre****THEATRE****Spring 2026 Semester****7899.06      Playwriting****G            2 - 4**

Special Topics Seminar in Playwriting.

Repeatable to a maximum of 32 cr hrs or 8 completions.



# Update Course

## Anthropology

ANTHROP

### Spring 2026 Semester

3211      **Forensic Science**

U            3

Forensic science is the study and application of science to the process of law and involves the collection, examination, evaluation and interpretation of evidence. This course surveys the principals, theories, and practices of the forensic sciences commonly utilized within the U.S. legal system.

## Aviation

AVIATN

### Spring 2026 Semester

2000      **Introduction to the Aviation Industry**

U            3

Introduction to the aviation industry, including its elements, components, and structures. Topics include: aircraft, airports, airspace, a survey of industry segments and purposes, and careers and career paths. This is an RATP approved course.

### Spring 2026 Semester

4201      **Applied Dispatching**

U            3

Study of dispatch fundamentals, aircraft systems, performance, ATC requirements, and the practical application of aircraft dispatching. Note: Age Requirements: All students will be required to be 21 years of age upon completion of AVN 4201-Applied Aircraft Dispatch in order to receive a grad cert that allows you to sit for the FAA Aircraft Dispatch Practical Exam. This is an RATP approved course.  
Prereq: 4200; and permission of instructor.

## Business Admin: Finance

BUSFIN

### Autumn 2025 Semester

3222      **Foundations of Investments**

U            3

Basic principles and methods of investment for non-Business majors.  
Prereq: 3120; and AcctMIS 2000. Not open to students with credit for 4221. Not open to students enrolled in the BSBA program. Cross-listed in CSCFFS.

## Consumer Sciences

CONSCI

### Autumn 2025 Semester

5193      **Individual Studies in Consumer Sciences**

U G            1 - 4

Problems in various phases of consumer sciences chosen for individual study under the guidance of a faculty member.

Prereq: Permission of instructor. Repeatable to a maximum of 8 cr hrs or 8 completions. This course is graded S/U. Cross-listed in CSHspMg.

### Autumn 2025 Semester

7194      **Group Studies in Consumer Sciences**

G            1 - 4

Problems in various phases of consumer sciences chosen for group study under the guidance of a faculty member.

Prereq: Grad standing, or permission of instructor. Repeatable to a maximum of 16 cr hrs or 16 completions.  
Cross-listed in CSHspMg.

**Autumn 2025 Semester****7991 Research Practicum in Consumer Sciences****G 1 - 4**

Supervised participation in empirical research inclusive of research design selection, and/or data collection, and/or data analysis, and/or manuscript preparation.

Prereq: 6000 and Grad standing: or permission of instructor. Repeatable to a maximum of 16 cr hrs or 8 completions. Cross-listed in CSHspMg.

**Autumn 2025 Semester****7992 Teaching Practicum in Consumer Sciences****G 1 - 4**

Supervised participation in college teaching inclusive of pedagogy selection, and/or development of teaching techniques, and/or development of course content, and/or development of assessment pieces, and/or classroom instruction.

Prereq: 6000, and grad standing: or permission of instructor. Repeatable to a maximum of 16 cr hrs or 8 completions. Cross-listed in CSHspMg.

**Autumn 2025 Semester****8193 Individual Studies in Consumer Sciences****G 1 - 4**

Problems in various phases of consumer sciences chosen for individual study under the guidance of a faculty member.

Prereq: 6000, and grad standing: or permission of instructor. Repeatable to a maximum of 16 cr hrs or 16 completions. This course is graded S/U. Cross-listed in CSHSPMG.

**Autumn 2025 Semester****8999 Research for Dissertation****G 1 - 12**

Research for dissertation.

Prereq: Grad standing; and permission of instructor. Repeatable to a maximum of 24 cr hrs or 8 completions. This course is graded S/U. Cross-listed in CSHspMg.

**Evolution, Ecology and Organismal Biology****EEOB****Spring 2026 Semester****4560 Comparative Endocrinology****U 2**

Introduction to hormones and hormone action; comparison across vertebrates and invertebrates with an emphasis on how hormones mediate responses to health challenges and changing environments.

Prereq: 2520 or 4520.

**Engineering Technology (BS)****ENGRTEC****Spring 2026 Semester****4400 Leadership and Change Management****U 3**

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

Prereq: Jr or Sr standing; or permission of instructor.

Components: LEC

**Educational Studies: Quant Rsrch, Evaltn & Msrmnt****ESQREM****Autumn 2025 Semester****6641 Introduction to Educational Statistics****G 4**

An introduction to quantitative techniques, with an emphasis on educational settings.

Components: LEC LAB

**Autumn 2025 Semester****6661 Introduction to Educational Measurement****G 3**

Provides a general survey of measurement and testing, including test evaluation, basics of test construction, validity and reliability.

Prereq: Introductory grad level statistics course (e.g., Stat 6641) or equiv.

**Educational Studies: Special Education****ESSPED****Autumn 2025 Semester****5777 Cultural Diversity in American Education: Theories, Models, and Strategies****U G 3**

This course focuses on cultural diversity/differences and the ways in which culture (related extensively to race and ethnicity) has been and continues to be defined and addressed in the American educational system (P-12 primarily, with attention to higher education). The fundamental course focus is the achievement gap (which has many other names, such as expectation and opportunity gap).

Cross-listed in EducSt 5777.

**Industrial and Systems Engineering****ISE****Spring 2026 Semester****5812 LeanSigma Certification Project II****U G 3**

Focuses on industry sponsored Lean Sigma DMAIC Certification Projects. Improve and Control are the phases covered in this course.

Prereq: 5811; and GenEd 1201 or 2601.

**Mechanical Engineering****MECHENG****Autumn 2025 Semester****2020 Introduction to Mechanics of Materials****U 3**

Stress and strain analysis of deformable structural components subjected to unidirectional and combined loads; pressure vessels; stress transformations (Mohr's Circle); beam deflections; column buckling.

Prereq: 2010, 2010H or 2040.

**Nursing****NURSING****Autumn 2025 Semester****7331 Assessment and Management of Child and Adolescent Mental Health Issues****G 3**

Application of theories, research findings, assessment, and clinical management principles to evidence-based child and adolescent mental health screening, early intervention, and mental health promotion.

Prereq: Enrollment in a graduate nursing program; or permission of instructor.

**Pharmacy****PHR****Autumn 2025 Semester****8100 Health System Pharmacy Finance I****G 1½**

This course covers selected aspects of financial and managerial accounting as it relates to health systems and pharmacy. Learners will be introduced to financial concepts, issues, vocabulary, and tools that are needed by pharmacy leaders in the healthcare industry.

Prereq: Enrollment in the MS in Health-System Pharmacy program, or permission of instructor.

**Autumn 2025 Semester****8140 Research Methodology I****G 1**

Apply research and design methodology to resolving health system pharmacy issues. The first course in a two-course series.

Prereq: Enrolled in MS in Health-Systems Pharmacy; or permission of instructor.

#### Autumn 2025 Semester

##### 8160 Operations Management in Health System Pharmacy

G 1½

This course will prepare students for managing a variety of complex problems in health-system pharmacy operations. Students will develop analytical, problem-solving, decision-making, and communication skills relevant to the health-system pharmacy setting. Topics and cases presented in this course represent real issues facing pharmacy leaders today.

Components: LEC

Prereq: Must be enrolled in the MS in Health-System Pharmacy program, or permission of instructor.

#### Autumn 2025 Semester

##### 8170 Planning, Leading, and Managing the Pharmacy Enterprise

G 1½

This course builds on the foundational skills learned in previous courses. Students will have an opportunity to become experts in planning, leading, and managing the pharmacy enterprise through the lens of a chief pharmacy officer or director of the pharmacy enterprise. This course will also prepare the students for any applicable experiential training as part of their PGY1/PGY2 residency or job.

Components: LEC

Prereq: 8160 and enrollment in the MS-HSPAL program; or permission of instructor.

#### Autumn 2025 Semester

##### 8200 Operational Assessment of the Pharmacy Enterprise I

G 1½

The purpose of this course is to equip students with skills and resources that will enable them to effectively assess and improve the operations of a pharmacy enterprise. Through an approach of simulation, readings and recorded lectures, students will learn and apply the tools necessary to determine efficiency and effectiveness of pharmacy systems.

Prereq: 8160; and enrollment in the MS-HSPAL program; or permission of instructor.

#### Autumn 2025 Semester

##### 8210 Supervised Project in Health-System Pharmacy I

G 2

Each student enrolled in the MS in Pharmaceutical Sciences with a Specialization in Health-System Pharmacy Administration & Leadership (MS HSPAL) is required to engage in a supervised scholarly project under the guidance of their adviser. Students will complete 4 credit hours of supervised project credit.

Components: IND

Prereq: 8140 and 8145; and enrollment in MS in Health-Systems Pharmacy; or permission of instructor. This course is graded S/U.

#### Autumn 2025 Semester

##### 8220 Supervised Project in Health-System Pharmacy II

G 2

Each student enrolled in the MS in Pharmaceutical Sciences with a Specialization in Health-System Pharmacy Administration & Leadership (MS HSPAL) is required to engage in a supervised scholarly project under the guidance of their adviser. Students will complete 4 credit hours of supervised project credit.

Components: IND

Prereq: 8210 and enrolled in MS in Health-Systems Pharmacy; or permission of instructor. This course is graded S/U.

#### Autumn 2025 Semester

##### 8250 Pharmaceutical Supply Chain Principles for Health System Pharmacy

G 1½

Exposure to the key stakeholders in the pharmaceutical supply chain and factors affecting its integrity. Basic concepts in contract negotiations, regulatory compliance, drug procurement, and inventory control.

Components: LEC

Prereq: 8150; and enrollment in the MS in Health-System Pharmacy program; or permission of instructor.

## Public Health

PUBHLTH

#### Autumn 2025 Semester

##### 7189 Applied Practice Experience for Public Health

G 2 - 6

Applied practice experience.

Prereq: Enrollment in Master of Public Health (MPH-MP, MPH-B-MP, MPH-V-MP, MPH-P-MP, MPHE-MP or MPHPEP-MP) degree program; and permission of advisor. Repeatable to a maximum of 6 cr hrs or 6 completions. This course is graded S/U.

## Social Work

SOCWORK

#### Autumn 2025 Semester

##### 4188.03 Practicum Seminar I and II

U 2

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

Prereq: 3501 and 3502. Concur: 4189. Not open to students with credit for 4188.01 or 4188.02.

#### Autumn 2025 Semester

##### 4502 Generalist Practice with Groups

U 3

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

Prereq: 3501 and 3502.

#### Autumn 2025 Semester

##### 5024 Social Work Licensure Exam Strategies and Skills

U G 2

Course provides instruction on test taking strategies and developing a study plan and learning content and strategies to pass the Bachelors/Masters level licensure exam.

Prereq: Sr or Grad standing in Social Work. This course is graded S/U.

## Turkish

TURKISH

#### Autumn 2025 Semester

##### 3350 Contemporary Issues in Turkey

U 3

Campus: COL LMA  
MNS MRN NWK WST

This course provides an introduction to contemporary issues in Turkey. It interweaves the lived realities of present-day Turkish citizens with significant historical dates, personalities, and events. It considers the lives of communities on the margins and the various strategies they employ in everyday life to navigate expectations of family, community, and state.

GE soc sci indivs and groups and diversity global studies course. GE theme citizenship for div and just wrld course.

## Veterinary Clinical Sciences

VETCLIN

#### Autumn 2025 Semester

##### 7743 Basic Exotic Animal Medicine - Small Mammals

V 1

Provides a basic background for a new graduate veterinarian regarding exotic species commonly treated in a companion animal setting. The focus will be on mammalian species.

Prereq: Grad or professional standing in Veterinary Medicine program. This course is graded S/U.

## Withdraw Course

## Agricultural Communication, Education & Leadership

ACEL

#### Summer 2025 Term

##### 7320 Adult Learning and Professional Development

G 3

This course is designed to provide an introduction to adult learning and professional development to ensure effective programs and education with adult audiences.

Prereq: Not open to students with credit for 622.

## Agricultural, Environmental, and Dev Economics

AEDECON

**Summer 2025 Term****8401 Human Capital****G 2**

This course covers the key theories and empirical evidence surrounding investments in human capital. Topics include labor markets, nutrition and health, schooling and education, migration, population and fertility, and intra-household allocation.

Prereq: 7140, Econ 8714, and 8732; or permission of instructor.

**Agricultural Communication****AGRCOMM****Summer 2025 Term****2367 Agricultural Issues in Contemporary Society****U 3**

This course helps students develop a critical understanding of agricultural, environmental and related issues facing the United States and the world while improving their writing skills.

Prereq: English 1100.01. GE writing and comm: level 2 course.

**Summer 2025 Term****5190 Extension Education in Developing Countries****U G 3**

What is extension and what are the problems, prospects and challenges facing extension in the developing world? The course provides an opportunity for students to explore issues related to extension in developing countries.

Prereq: Not open to students with credit for AEE 790.

**Animal Sciences****ANIMSCI****Summer 2025 Term****3200 Applied Animal Bioscience Laboratory****U 2**

Laboratory experience exploring the organs, tissues and cells associated with the physiological systems of domestic animals and the nutrients used to support these systems.

Prereq: 3130; and 3140, 3140E, AnmlTec 3140T, or EEOB 2520; and 3160. Prereq or concur: 3170 or AnmlTec 3170T.

**Animal Sciences Technology****ANMLTEC****Summer 2025 Term****2190.01T Leadership in Equine Operations Management****U 1**

Practical, supervised leadership experience in equine facility management with emphasis on herd and facility operations and personnel supervision. A grade of C or better required to meet graduation requirements.

Prerequisite: Completion of tractor/mobile equipment safety certification process required.

Prereq: 2189.01T (289.04T) with a grade of C or above; 2201T (211T). Repeatable to a maximum of 2 cr hrs.

**Athletic Training****ATHTRNG****Summer 2025 Term****2010 Athletic Training Pre-Clinical Skills****U 1**

Instruction and assessment of foundational athletic training skills. Course also includes directed observations in selected athletic training facilities.

Prereq or concur: 2000.

**Summer 2025 Term****2189 Introduction to Clinical Care in Athletic Training****U 3**

Introduction to clinical field experience in Athletic Training. Includes limited supervised clinical experience in selected Athletic Training facilities.

Concur: 2300.

**Summer 2025 Term****2200 Foundations of Athletic Training Diagnosis****U 3**

In depth exploration of the morphological and functional changes that are influenced by and result from sport participation, injury, and illness and that are foundational for making accurate diagnoses.

Prereq: Anatomy 2300 or 3300, and admission to the Athletic Training Program.

**Summer 2025 Term****2300 Athletic Training Diagnosis and Acute Management I****U 3**

Pathology, evaluation, diagnosis, on-field care, and management of lower extremity & axial skeleton pathologies by athletic trainers. Special emphasis on management of acute trauma and return to play determinations.

Prereq: 2200.

**Chemical and Biomolecular Engineering****CBE****Summer 2025 Term****3521 Transport Phenomena II****U 4**

Emphasis on conduction, convective and radiation heat transfer, mass transfer and stagewise operations with applied computational problems.

Prereq: 2420 (420), and enrollment in CBE, FABEng, or EngPhysics major; or permission of instructor or Grad standing. Not open to students with credit for 522.

**Summer 2025 Term****3631 Chemical and Biomolecular Engineering Unit Operations Laboratory I****U 2**

Laboratory investigation of the operating characteristics and efficiency of chemical engineering equipment such as distillation, absorption, heat exchangers, and three phase mixing dynamics with mass transfer.

Prereq or concur: 2523 (523) and 3610 (610), and enrollment in CBE major. Not open to students with credit for 630 or 4630.

**Summer 2025 Term****3632 Chemical and Biomolecular Engineering Unit Operations Laboratory II****U 2**

Laboratory investigation of the operating characteristics and efficiency of chemical engineering equipment such as distillation, absorption, heat exchangers, and three phase mixing dynamics with mass transfer.

Prereq or concur: 2523 (523) and 3610 (610); and enrollment in CBE major. Not open to students with credit for 630 or 4630.

**City and Regional Planning****CRPLAN****Summer 2025 Term****6810 Non-motorized Transportation Planning****G 3**

Safely design a non-motorized transportation network that accommodates all users. Using effective planning strategies to create transportation master plans for pedestrian and bicycle networks.

Prereq: Grad standing, or permission of instructor. Not open to students with credit for 776.

**Electrical and Computer Engineering****ECE****Summer 2025 Term****3905 Capstone Design I****U 3**

Fundamentals of the engineering design process. Application of design principles and methodology to conceptual and detailed technical design. Project management during design.

Prereq: Option 1: Prereq or concur: 3080 or Philos 1332, and ECE 2560, 3010, 3020, 3027, 3030, 3040, 3050, and 3090, and Sr standing, and enrollment in Electrical Engineering Program of Study (EES subplan) of the ECE major. Option 2: Prereq or concur: ECE 2050 or 2100, and 3080 or Philos 1332, and ECE 3020, 3027, 3090, 3561, 3567, CSE 2231, and 2451, and Sr standing, and enrollment in Computer Engineering Program of Study (CES subplan). Not open to students with credit for 3900, 4900, 4900H, 4901, Engr 5901.01, 5901.02H, 5902.01, or 5902.02H. This course is progress graded.

**Summer 2025 Term****7861 Scientific Computing on Emerging Architectures****G 3**

Introduction to the architectural system design of emerging architectures and techniques for managing idiosyncrasies of these architectures for developing scientific computing applications.

Prereq: 5362, 762, CSE 2431, or 5431. Not open to students with credit for 694J or 694.03.

**Education: Teaching and Learning****EDUTL****Summer 2025 Term****7724 Teaching Evolution in Schools****G 3**

Focuses on issues, alternative practices, and curricular approaches related to teaching evolution in public schools. Research, court cases, and policies related to the teaching of evolution are examined.

Prereq: Coursework in Evolutionary Biology, or teaching licensure in life science; or permission of instructor.

**Engineering Technology****ENGTECH****Summer 2025 Term****2221T Component Rebuilding****U 2**

Supervised laboratory experience with emphasis on developing and improving hydraulic component service competencies related to classroom and career activities.

Prereq: 2214T (262T or 270T). Prereq or concur: 2224T (274T) and 2336T (273T). Not open to students with credit for 289.03T.

**Summer 2025 Term****2242T Metals and Metal Manufacturing****U 2**

Introduction to metals and metal manufacturing; including materials, equipment, processes, and products.

Prereq: GenMath 1040T or Math 1050 or Math placement level R or higher. This course is available for EM credit.

**Summer 2025 Term****2314T Introduction to Power Equipment****U 3**

An introduction to the off-road machinery industries, their past and future, and the application of engineering principles to the associated equipment.

Prereq: GenMath 1030T, or Math placement level S or higher. This course is available for EM credit.

**Summer 2025 Term****2334T Vehicle Electrical and Electronic Systems****U 2**

A study of electrical and electronic systems utilized in off-road machinery. A grade of C or better required to meet graduation requirements for Power Equipment.

Prereq: 2322T. This course is available for EM credit.

**Food, Agricultural, and Biological Engineering****FABENG****Summer 2025 Term****3481 Introduction to Food Engineering****U 3**

Introduction to material and energy balances, momentum, heat and mass transfer. Applications of basic engineering principles in food processing through problem solving and laboratory experiments. Offered for Food Science & Technology.

Prereq: Math 1151 (151), Physics 1106 (106), 1200 (111), Chem 1210 (121), or FdScTe 2400 (401); or permission of instructor. Not open to students with credit for 481. Not open to Engineering majors.

**Food Science and Technology****FDSCTE**



**Summer 2025 Term****3400 Food Supply-Chain Equipment Operations****U 2**

The focus of this course is description of equipment used throughout the food supply chain from harvest/assembly to preparation for consumption. After completing this course, students will recognize how equipment systems are assembled within a facility and the role of sensing and control systems in operation of facilities for handling, manufacturing, storage, distribution and preparation of foods.

Cross-listed in AgSysMt.

**Summer 2025 Term****6400 Study Design and Quantitative Methods for Food Science****G 3**

This graduate-level course is designed to introduce students to research study design and data analytic methods commonly used in food science. Since study planning is critical to the success of any research project, this course will focus primarily on appropriate study design.

Prereq: Stat 1450, 1550, or 2450; or permission of instructor.

**Summer 2025 Term****7430 Advanced Food Process Design****G 3**

An integration of quantitative parameters describing changes in the quality attributes of foods with quantification of the physical changes occurring between the time of raw material harvest or assembly and the point of food consumption. Models to predict changes in quality attributes as a function of process parameters will be developed and demonstrated.

Prereq: 5400, 5536, 5600, or FABEng 3481 or 4410, or permission of instructor. Not open to students with credit for FABEng 7430. Cross-listed in FABEng.

**Summer 2025 Term****7727 Current Topics in Food Safety****G 1**

Weekly graduate seminar on current and emerging topics in food safety. Presentations from OSU faculty and invited external experts from industry, academia and government. The course is designed to expose graduate students to the wide range of topics and expertise needed to address food safety. Students will learn the role of the public sector in ensuring food safety.

Prereq: Grad standing, or permission of instructor. Repeatable to a maximum of 4 cr hrs. This course is graded S/U. Cross-listed in VetPrev.

**Health Care Innovation****HCINNOV****Summer 2025 Term****7593 Capstone I****G 3**

First of two Capstone courses in which students begin the implementation of the Capstone Project that was designed in HCINNOV 7522. Emphasis on the implementation plan and individual and team-based experiential learning.

Prereq: 7522, and enrollment in the Masters of Healthcare Innovation (MHI) program; or permission of instructor. Not open to students with credit for 7590, 7591, or 7592. This course is graded S/U.

**Summer 2025 Term****7594 Capstone II****G 3**

Second of two Capstone courses in which students complete the Capstone Project that was initiated in HCINNOV 7593 (Capstone 1). Emphasis on implementation and evaluation of the Capstone Project and individual and team-based experiential learning.

Prereq: 7593, and enrollment in the Masters of Healthcare Innovation (MHI) program; or permission of instructor. Not open to students with credit for 7590, 7591, or 7592. This course is graded S/U.

**Horticulture and Crop Science****HCS****Summer 2025 Term****7625 Plant Breeding and Biotechnology****G 3**

Introduction to the principles of plant breeding and biotechnology.

Prereq: Undergraduate plant breeding or genetics course, or permission of instructor. Not open to students with credit for 625.

**Summer 2025 Term****2191.23T Greenhouse Engineering Technology Internship****U 3**

Experience of employment in the greenhouse industry, structured to provide varied occupational experiences, supervised by an industry employer, and coordinated by faculty. A grade of 'C' or better required to meet graduation requirements for Greenhouse and Nursery Management Greenhouse Engineering Technology specialization.

Prereq: 1201T, 2189.21T, and 2500T. Repeatable to a maximum of 6 cr hrs.

**Health and Rehabilitation Sciences****HthRHSC****Summer 2025 Term****4590.01 Global Health Inequalities: An Introductory Course****U 3**

The focus of this course is on recognizing health inequalities locally and beyond. Students will examine why communities in both the Global North and South do not have equitable access to high-quality health services and most importantly what can be done to promote equity.

Prereq: Enrollment in online Health Sciences program.

**Medical Dietetics****MEDDIET****Summer 2025 Term****5189 Dietetic Professional Practice I****U G 1 - 12**

Clinical experience in a specific health care system uses inpatient, outpatient, foodservice and community-based dietetic practice. The student works under the direction of Registered Dietitians and the supervision of medical dietetics faculty.

Prereq: Enrollment in the MedDiet program. Repeatable to a maximum of 12 cr hrs or 3 completions. This course is graded S/U.

**Summer 2025 Term****5289 Dietetic Professional Practice II****U G 1 - 12**

Clinical experience in a specific health care system uses inpatient, outpatient, foodservice and community-based dietetic practice. The student works under the direction of Registered Dietitians and the supervision of medical dietetics faculty.

Prereq: Enrollment in MedDiet. Repeatable to a maximum of 12 cr hrs or 3 completions. This course is graded S/U.

**Summer 2025 Term****5800 Advanced Nutrition Therapy in Complex Disease States****U G 3**

Study of nutrition therapy in disease: interrelationships of nutrition with biochemical, physiological and anatomical changes associated with acute, chronic and terminal illness, surgery and trauma.

Prereq: Credit in general chemistry, biology, physiology, nutritional assessment, nutritional therapy, or education and counseling, or permission of instructor. Not open to students with credit for 645 or 885.

**Summer 2025 Term****6002 Foundations in Research & Application II****G 1**

An evidence based review of current topics in dietetics to support the integration of nutrition informatics, scientific evidence and key trends in healthcare to dietetics practice.

Prereq: Enrollment in MedDiet or HthRhSc graduate program. This course is graded S/U.

**Summer 2025 Term****6003 Foundations in Research & Application III****G 1**

An evidence based review of current topics in dietetics to support the integration of nutrition informatics, scientific evidence and key trends in healthcare to dietetics practice.

Prereq: Enrollment in MedDiet or HthRhSc graduate program. This course is graded S/U.

**Summer 2025 Term****5000 Interdisciplinary Case Management for Working with Underserved Populations****U G 2**

Provides students the opportunity to collaborate with students from other health care professions including pharmacy, health and rehabilitation sciences, nursing, medicine and social work. The students will use a problem-based learning approach to patient care in community health, focusing on populations, living in poverty, with complex healthcare needs.

Prereq: Sr or Grad standing. This course is graded S/U. Cross-listed in HthRhSc, MedColl, Phr, and SocWork.

**Summer 2025 Term****6403 Interprofessional Leadership****G 1**

Students will engage in discussion and activities to develop interprofessional leadership competencies including interprofessional collaboration and effective communication to lead and serve on health care teams.

Prereq: Enrollment in Interprofessional Healthcare certificate program, or permission of instructor. This course is graded S/U.

**Summer 2025 Term****7110 School Nurse Wellness Coordinator Practice****G 3**

School nurse wellness coordinator field experience in a school setting applying the roles and responsibilities of a school nurse wellness coordinator.

Prereq: Enrollment in Category 3 School Nurse Wellness Coordinator Certificate program, or permission of instructor.

**Summer 2025 Term****7299.01 Advanced Practice Nursing: Dual Nurse-Midwifery & Women's Health Clinical Practicum I****G 1 - 8**

Application of theories, research findings, skills, and interventions including pharmacological management, during the provision of advanced practice nursing care.

Prereqs: 7281, 7410, 7450, and 7470.

**Summer 2025 Term****7299.02 Advanced Practice Nursing: Dual Nurse-Midwifery & Women's Health Clinical Practicum II****G 1 - 12**

Application of theories, research findings, skills, and interventions including pharmacological management, during the provision of advanced practice nursing/nurse-midwifery care to women and their families.

Prereq: 7299.01.

**Summer 2025 Term****7299.03 Advanced Practice Nursing: Dual Nurse-Midwifery & Women's Health Clinical Practicum III****G 1 - 12**

Application of theories, research findings, complex skills, and interventions including pharmacological management, during the provision of advanced practice nursing/nurse-midwifery care to women and their families.

Prereq: 7299.02.

**Summer 2025 Term****7343 Introduction to Nurse Coaching****G 3**

Provides an overview of the nurse coach role, theory and competencies with application to nurse coaching skills.

Prereq: Grad standing and enrollment in the Nurse Coaching certificate program, or Sr standing RN-BSN students may enroll via Senior Petition; or permission of instructor.

**Summer 2025 Term****7345 Advanced Nurse Coaching****G 3**

Addresses nurse coaching competencies that promote whole person health.

Prereq: 7343, or Sr standing RN-BSN students may enroll via Senior Petition.

**Summer 2025 Term****7500 Health Policy and Advocacy****G 2**

Analysis of the U.S. health care delivery system and the policy making process, with an emphasis on the social, political and economic factors affecting the delivery of Nursing services.  
Prereq: Grad standing in Nursing, or permission of instructor.

**Summer 2025 Term****7717 Interdisciplinary Perspective on Developmental Disabilities****G 3**

Provides an introduction to the psychosocial, medical, and educational implications of developmental disabilities.  
Prereq: permission of instructor. Not open to students with credit for 717.01 or 717.03. Cross-listed in EduSt, HthRhSc, Psych, SocWork, and SphHrng.

**Summer 2025 Term****7718 Interdisciplinary Perspective on Autism Spectrum Disorders****G 3**

Teaches the analytical skills necessary to comprehend and formulate an interdisciplinary framework relating to major scientific and theoretical perspectives in autism spectrum disorders.  
Prereq: permission of instructor. Not open to students with credit for 717.01 or 717.02. Cross-listed in EduSt, HthRhSc, Psych, SocWork, and SphHrng.

**Public Health: Environmental Health Sciences****PUBHEHS****Summer 2025 Term****6300 Environmental Health Science Issues in Health Administration****G 1½**

In this course, we will consider environmental health sciences as a cornerstone to public health.  
Prereq: Enrollment in HSMP-MHA, or permission of instructor.

**Summer 2025 Term****7350 Special Topics in Environmental Health Sciences****G 1 - 3**

Opportunity for students to pursue a particular environmental health interest that is not available through existing topical offerings.  
Repeatable to a maximum of 12 cr hrs or 4 completions. This course is graded S/U.

**Public Health: Epidemiology****PUBHEPI****Summer 2025 Term****5411 Outbreak Investigations****U G 3**

Principles and practice of field epidemiology, including outbreak investigation and disease surveillance.  
Prereq: 2410, or Grad standing, or permission of instructor. Not open to students with credit for 615.

**Summer 2025 Term****7450 Topics in Epidemiology****G 1 - 6**

Regular class on topics that are relevant to students enrolled in programs in the Division of Epidemiology.  
Prereq: Enrollment in Public Health, Grad standing, and permission of instructor. Repeatable to a maximum of 12 cr hrs. This course is graded S/U.

**Public Health: Health Behavior & Health Promotion****PUBHHBP****Summer 2025 Term****6510 Preventing Disease and Promoting Health through Behavioral Science****G 3**

Examination of behavioral and social science concepts as the basis for public health practice; topics include transferring knowledge, motivating and aiding behavior change efforts, and working with the community.  
Prereq: Grad standing, and enrollment in Public Health program. Not open to students with credit for 720.

**Public Health****PUBHLTH**

**Summer 2025 Term****3189.03 Field Experience in Global Public Health: Japan****U 3**

Global public health concepts and associated metrics; role of cultural, social, economic, and environmental factors on public health in Japan; instructions in a classroom setting on a Japanese campus and through field trips.

Prereq: English 1110 (110), and good academic standing, and completion of minimum 4 semesters (2 academic years) of undergraduate education.

**Radiologic Sciences and Therapy****RADSCI****Summer 2025 Term****3200 Evidence Based Practice in the Radiologic Sciences****U 2**

Introduction to radiologic sciences focusing on innovations impacting clinical practice. The scientific writing process is used to implement the process of analyzing and synthesizing credible evidence to advance clinical practice skills.

Prereq: Acceptance in the Radiologic Sciences and Therapy Division.

**Summer 2025 Term****4426 Radiographic Imaging II****U 3**

Advanced radiologic image formation, image assessment, and radiographic quality management and testing.

Prereq: 3425, and enrollment in RadSci; or permission of instructor. This course is available for EM credit.

**Veterinary Clinical Sciences****VETCLIN****Summer 2025 Term****7751 Equine Anesthesiology****G V 1**

Review of the literature on equine anesthesia.

Prereq: DVM or equiv, or 3rd yr standing in Veterinary Medicine program. Not open to students with credit for 751. This course is graded S/U.

**Veterinary Medicine****VMCOLL****Summer 2025 Term****6510 Veterinary Preventive Medicine I: Introduction to Epidemiology and Population Systems****V 2½**

Descriptive and analytical epidemiology, including design, analysis, and interpretation of results; host, agent, and environmental factors in disease causation.

Prereq: 1st yr standing in Veterinary Medicine program.

**Summer 2025 Term****6520 Gross Anatomy I****V 3½**

Body and its components as forms, relationships, and mechanical functioning.

Prereq: 1st yr standing in Veterinary Medicine program.

**Summer 2025 Term****6521 Gross Anatomy II****V 4**

Study of the structure and function of body systems of domesticated herbivores using the equine species as a model for dissection. Common anatomic features and species specific differences of the various systems are highlighted.

Prereq: 1st yr standing in Veterinary Medicine program.

**Summer 2025 Term****6525 Introduction to Veterinary Diagnostic Radiology****V 1**

Radiation physics and safety; basic principles of image interpretation; normal radiographic anatomy of small and large animals.

Prereq: 1st yr standing in Veterinary Medicine program. Not open to students with credit for 525 or 526.

**Summer 2025 Term****6530 Comparative Structure and Function of Tissues****V 2½**

Correlated study of the development, microscopic structure, and ultrastructural morphology of tissues.

Prereq: 1st yr standing in Veterinary Medicine program.

**Summer 2025 Term****6540 Structure and Function of Cells****V 2**

Introduction to structure and function at cellular level including physiological principles of homeostasis, energetics, metabolism, enzymes, nutrition, and growth.

Prereq: 1st yr standing in Veterinary Medicine program. Not open to students with credit for 540.

**Summer 2025 Term****6550.01 Comparative Biology of Disease 1: General Pathology and Immunology****V 3**

An interdisciplinary study of the interactions between disease producing agents, body systems, tissues, cells, subcellular units, and selected drugs and toxins.

Prereq: 1st yr standing in Veterinary Medicine program. Not open to students with credit for 550.01.

**Summer 2025 Term****6550.02 Comparative Biology of Disease II: Animal Pathogens****V 3**

An interdisciplinary study of the interactions between disease producing agents, body systems, tissues, cells, subcellular units, and selected drugs and toxins.

Prereq: 1st yr standing in Veterinary Medicine program. Not open to students with credit for 550.02.

**Summer 2025 Term****6561 Principles of Veterinary Pharmacology****V 2**

Basic principles of pharmacology, pharmacodynamics, pharmacokinetics, and therapeutics.

Prereq: 1st yr standing in Veterinary Medicine program. Not open to students with credit for 561.

**Summer 2025 Term****6565 Introduction to Animal Welfare****V 1**

Historical, philosophical and scientific developments that have led to our current understanding of animal welfare and how it should be assessed. Welfare issues related to the different uses of animals in society.

Prereq: 2nd yr standing in Veterinary Medicine program.

**Summer 2025 Term****6570.01 Introduction to Clinical Veterinary Medicine****V 1**

Introduction to the basic concepts and skills required to practice clinical veterinary medicine, including the approach to a veterinary case, and some basic psychomotor, surgical and cognitive skills required by clinicians.

Prereq: 1st yr standing in Veterinary Medicine program. This course is graded S/U.

**Summer 2025 Term****6570.03 Clinical Reasoning and Decision-Making****V 2**

Serves as a capstone experience to provide students with the opportunity to integrate the clinical veterinary skills and knowledge required to "think and behave like a clinician" in preparation for their clinical year.

Prereq: 3rd yr standing in Veterinary Medicine program.

**Summer 2025 Term****6600 Cardiovascular System****V 3**

A comparative study of the structure, function, and dysfunction of the cardiovascular system including arrhythmias, abnormal flow, congenital disease, etiologic agents, diagnostic methods, and therapeutic approaches.

Prereq: 2nd yr standing in Veterinary Medicine program. Not open to students with credit for 600.

**Summer 2025 Term****6601 Respiratory System****V 3**

A comparative study of the structure, function, and dysfunction of the respiratory system including reaction to injury, ventilation defects, pneumonias, neoplastic disease, radiological diagnosis, and therapeutic approaches.

Prereq: 2nd yr standing in Veterinary Medicine program. Not open to students with credit for 601.

**Summer 2025 Term****6602 Urinary System****G V 2½**

A comparative study of the structure, function, and dysfunction of the urinary system including diseases of the kidney, bladder, and urethra, and their diagnosis and treatment.

Prereq: Grad standing or 2nd yr standing in Veterinary Medicine program.

**Summer 2025 Term****6603 Nervous System****V 3½**

Comparative study of the structure, function and dysfunction of the nervous system including functional anatomy, pathology, and clinical evaluation of the brain and spinal cord.

Prereq: 2nd yr standing in Veterinary Medicine program.

**Summer 2025 Term****6604 Endocrine System****V 2½**

A comparative study of the anatomy, physiology, and pathology of the major endocrine systems and an introduction to diagnosis and treatment of endocrine disorders.

Prereq: 2nd yr standing in Veterinary Medicine program.

**Summer 2025 Term****6605 Reproductive System****V 3**

A comparative study of the structure, function, and dysfunction of the reproductive system including etiologic, pathogenic, pathophysiologic, therapeutic, and preventive aspects of reproductive diseases.

Prereq: 2nd yr standing in Veterinary Medicine program. Not open to students with credit for 605.

**Summer 2025 Term****6606 Integumentary System****V 3**

Study of the structure and function of the skin and ears as a basis for studying diseases of these organs. A problem-based approach to recognition, diagnosis and treatment of skin and ear diseases of domestic animals.

Prereq: 2nd yr standing in Veterinary Medicine program. Not open to students with credit for 606.

**Summer 2025 Term****6607 Musculo-skeletal System****V 2½**

A comparative study of the structure, function, and dysfunction of the musculoskeletal system including congenital and acquired diseases, their radiographic diagnosis, treatment, and prevention.

Prereq: 1st yr standing in Veterinary Medicine program.

**Summer 2025 Term****6609 Digestive System****V 3½**

A comprehensive study of the gastrointestinal system of domestic animals.

Prereq: 2nd yr standing in Veterinary Medicine program.

**Summer 2025 Term****6610.01 Clinical Veterinary Parasitology****V 1**

Clinical aspects of parasitic infections of cats, dogs, horses, cattle and small ruminants, including symptoms diagnosis treatments, control measures and zoonotic concerns.

Prereq: 3rd yr standing in Veterinary Medicine program. Not open to students with credit for 610.

**Summer 2025 Term****6612 Introduction to Comparative Veterinary Ophthalmology****V 2**

Comparative anatomy, histology and physiology of the normal and abnormal eye and adnexa of domestic animals.

Prereq: 3rd yr standing in Veterinary Medicine program. Not open to students with credit for 612.

**Summer 2025 Term****6618 Clinical Pathology****V 4**

Introduction to current concepts of clinical pathology (hematology, hemostasis, clinical chemistry, urinalysis, and cytology) and quality assurance.

Prereq: 1st yr standing in Veterinary Medicine program. Not open to students with credit for 618.

**Summer 2025 Term****6641 Introduction to Animal Behavior****V 2**

Basic concepts and applications of animal behavior with implications for welfare. Emphasis on domesticated animals, with some coverage of laboratory and wild animals in captivity.

Prereq: 1st yr standing in Veterinary Medicine program. Not open to students with credit for 641.

**Summer 2025 Term****6646 Veterinary Preventive Medicine II: Zoonotic Diseases****V 2**

Recognition of zoonotic diseases in the US, host species, methods of transmission, risk factors for exposure, measures for control, prevention, and eradication.

Prereq: Second year standing in VMColl. Not open to students with credit for 646.

**Summer 2025 Term****7562 Introduction to Veterinary Anesthesiology****V 2**

Introduction to veterinary anesthesia.

Prereq: 3rd yr standing in Veterinary Medicine program. Not open to students with credit for 562.

**Summer 2025 Term****7563 Introduction to Surgery****V 2**

Introduction to surgery.

Prereq: Third year standing in VMColl. Not open to students with credit for 563.

**Summer 2025 Term****7613 Veterinary Emergency and Critical Care Medicine****V 2**

Principles and applications of fluid therapy and emergency and critical care medicine in small and large animals.

Prereq: 3rd yr standing in Veterinary Medicine program. Not open to students with credit for 613.





## Council on Academic Affairs Approval

| New Program                               | Proposed By              | Status          | Date Approved | 5/28/2025 |
|---|--------------------------|-----------------|---------------|-----------|
| Executive Master of Health Administration | College of Public Health | Approved by CAA |               |           |

Additional approval necessary

| New Program  | Proposed By                          | Status          | Date Approved | 5/28/2025 |
|--|--------------------------------------|-----------------|---------------|-----------|
| Master of Public Administration and Leadership specialization in Cybersecurity | John Glenn College of Public Affairs | Approved by CAA |               |           |

No additional approval necessary

| New Program   | Proposed By  | Status          | Date Approved | 5/28/2025 |
|---|--|-----------------|---------------|-----------|
| Graduate Certificate (type 3a and 3b) in Cybersecurity, Law, Policy, and Management | John Glenn College of Public Affairs and the Moritz College of Law | Approved by CAA |               |           |

No additional approval necessary

| New Program                     | Proposed By     | Status          | Date Approved | 5/28/2025 |
|---------------------------------|-----------------|-----------------|---------------|-----------|
| Online Associate of Arts Degree | Ohio State Lima | Approved by CAA |               |           |

No additional approval necessary

| New Program              | Proposed By                                  | Status          | Date Approved | 5/28/2025 |
|--------------------------|--|-----------------|---------------|-----------|
| Cardiac Sonography track | School of Health and Rehabilitation Sciences | Approved by CAA |               |           |

No additional approval necessary