International Credit Program at Elmira College
Winter 2026 Course Listing as of 11/06/2025

Course Code	Course Title	Credits	Course Description
ANTH 2110	Introduction to Cultural Anthropology	3	This course introduces students to the study of human cultures and societies across time and space. Students will explore how anthropologists investigate cultural practices, beliefs, and institutions through ethnographic fieldwork and cross-cultural comparison. Key topics include language, kinship, race, gender, economy, politics, religion, and globalization. The course emphasizes critical thinking about cultural diversity and the role of anthropology in addressing global issues such as inequality, environmental change, and health disparities.
ARTH 1050	Histories of World Art I	3	This course offers a comprehensive survey of artistic movements, architectural styles, and cultural ideas from the Paleolithic era to the Early Renaissance. Through a global lens, students will explore the evolution of art and its significance in shaping societies and civilizations. The course emphasizes critical analysis, contextual understanding, and appreciation of diverse artistic expressions across different regions and periods.
ARTH 1060	The History of Art II	3	This is an immersive and comprehensive exploration of the history of art, architecture, and intellectual thought from a global perspective, spanning the Early Renaissance to the close of the nineteenth century. This course offers students an in-depth understanding of the evolution of artistic expression, the social and cultural contexts that shaped it, and the interplay between art and broader human history. Through the course, students will embark on a captivating journey through pivotal moments in art and architecture.
ARTH 1350	Fashion History	3	This course provides an overview of the history of Western dress and fashion from the ancient world to the present. Students will examine how costume reflects cultural, social, economic, political, and technological changes across civilizations. The course emphasizes the interrelationship between fashion and identity, as well as the influence of historical styles on modern design.
ARTH 2230	Greek Mythology	3	The course explores the fascinating world of Greek myths, including the stories of mighty gods, heroic mortals, and terrifying monsters. In the course, students will learn these stories primarily through ancient Greek literary texts translated into English covering passages of Greek epic, tragedy, lyric poetry, and philosophy. Students will learn about the themes and characters of these texts by using visual art, historical events, and cultural traditions to more fully contextualize the myths within their original setting and better understand what role they played in ancient Greek society and realize the influence of Greek myths on western art and literature.
ARTH 2234	Introduction to African Literature	3	Students will analyze primary texts covering the genres of poetry, drama, fiction, and nonfiction, and will discuss them from different critical stances including historical, feminist, postcolonial, and Marxist. This course aims to introduce students to the diversity and richness of African literature, as well as the fundamental concepts and techniques of literary studies. They will demonstrate their knowledge and understanding of the works by responding to questions focusing on the works, movements, authors, themes, and motifs. The course will also focus on developing students' reading, writing, and literary analysis skills, as well as their academic communication abilities.
ARTH 2260	Introduction to Modern Art	3	This course offers an in-depth exploration of the evolution and transformation of artistic expression in the modern era, spanning roughly from the late 19th century to the mid-20th century. Students will engage with various art movements, key artists, and critical concepts that shaped the trajectory of modern art. The curriculum integrates historical context, theoretical frameworks, and critical analysis to foster a deep understanding of the diverse and revolutionarydevelopments in the art world during this period.
ARTH 2350	Ancient Greek Theatre	3	This course offers an integrated study of Ancient Greek theatre, focusing on tragedy and comedy. Through close readings of the plays, students will explore the thematic, structural, and performative elements that contributed to the success and ongoing legacy of these works. The course will also examine the historical, social, and religious contexts in which these plays were originally performed and how they continue to create meaning on stage today. Special emphasis will be placed on the cultural significance of the theatre in ancient Greek society and its influence on modern drama.
ARTH 3261	Asian Art and Architecture	3	This course provides a comprehensive exploration of the art and architecture of Asia, tracing its development from ancient civilizations to the modern era. Students will study both monumental structures and portable art objects, with a focus on a wide array of media such as painting, ceramics, textiles, and photography. In addition to architectural landmarks, the course emphasizes how different artistic traditions within Asia have interacted with one another and with global influences. By examining the diversity and evolution of these forms, students will gain a deeper understanding of the dynamic and interconnected cultural exchanges that shape Asian art, challenging traditional notions of what constitutes "Asian art."

BCHM 4550	Human Nutrition	3	This course is a comprehensive exploration of human nutrition, covering the biological and chemical aspects of nutrients and their impact on human physiology. Topics covered include normal nutrition across the various stages of the life cycle, nutrition in sports, weight management strategies, and the consequences of inadequate nutrition on health.
BIOL 1244	Exploration to General Biology I	4	This course provides an introduction to the fundamental principles of biology, emphasizing the structure and function of living organisms, cellular processes, genetics, and evolution. Topics include the chemical and molecular basis of life, cell structure and function, metabolism, heredity, and the mechanisms of evolution. The course integrates scientific inquiry, experimental design, and data analysis to develop a foundational understanding of biological systems. This course is designed for students pursuing life sciences and related fields, preparing them for advanced biological studies.
BUSI 1002	Introduction to Business	3	A foundational understanding of business is essential for professionals in the creative industries. This course introduces students to the principles and practices that shape modern business operations, with emphasis on entrepreneurship, management, finance, marketing, and global dynamics. Students explore how businesses function within economic, social, and technological contexts while examining ethical and sustainable approaches to decision-making. Through case studies and real-world applications, the course connects core business concepts — such as accounting, human resources, intellectual property, and branding—to creative and cultural enterprises.
BUSI 2212	Professional Business Writing	3	This comprehensive course is designed to equip students with the essential skills needed to communicate effectively within the dynamic and diverse environments of organizations, spanning corporations, government agencies, and non-profit organizations. The course focuses on developing students' proficiency in written communication, a critical aspect of professional success in various career paths that demand substantial interaction within and outside organizations.
BUSI 2400	Entrepreneurship and Innovation	3	This course introduces the foundations of innovation and entrepreneurship, integrating economic and strategic perspectives to explore how new ideas are generated, developed, and transformed into successful ventures. Students will learn the theory and practice of entrepreneurship, with emphasis on the role of innovation, creativity, industrial organization, intellectual property, and networks in shaping competitive advantage. Through lectures, case studies, and applied projects, students will develop the knowledge and skills to evaluate entrepreneurial opportunities, design innovative business models, and understand the broader economic and social contexts of entrepreneurship.
BUSI 3132	Foundations of Management Information Systems	3	This course provides students with an integrated understanding of management information systems (MIS) and the practical application of Microsoft Excel and Access to solve real-world business problems. Emphasizing the role of technology in organizational management and strategy, the course explores how data is collected, stored, analyzed, and transformed into actionable insights. Through hands-on exercises and projects using Excel and Access, students will learn to design, implement, and manage data-driven business solutions. The course also prepares students with the skills and knowledge necessary to pursue Microsoft Office Specialist (MOS) certifications in Excel and Access.
CHEM 1722	General Chemistry II	4	General Chemistry II is a continuation of General Chemistry I, focusing on advanced topics in chemistry including chemical equilibrium, thermodynamics, kinetics, electrochemistry, and descriptive inorganic chemistry. The course aims to deepen students' understanding of chemical principles and their applications in various fields of science and technology. Laboratory experiments and problem-solving exercises will reinforce theoretical concepts.
CHEM 1725	General Chemistry Laboratory I	1	General Chemistry Laboratory I is a foundational laboratory course designed to accompany the concepts taught in General Chemistry I. This course introduces students to essential experimental techniques in chemistry, including proper laboratory procedures, data collection and analysis, and scientific reporting. Students will gain hands-on experience with chemical reactions, stoichiometry, solution preparation, titration, calorimetry, and gas laws. The course fosters scientific inquiry through observation, hypothesis testing, and the interpretation of experimental results.
CHEM 2310	Organic Chemistry I	4	Organic Chemistry I serves as an introduction to the foundational principles of organic chemistry. The course focuses on the structures, properties, and chemical reactivity of carbon atoms in different hybridization states, particularly in alkanes (including cycloalkanes), alkenes, and alkynes. Additionally, various aspects of isomerism in organic compounds and reaction mechanisms (substitution, elimination, and addition) will be covered with an emphasis on electron flow.

CHEM 2320	Organic Chemistry II	4	Organic Chemistry II is the continuation of Organic Chemistry I, focusing on advanced topics in organic chemistry. The course delves into the structure and reactivity of organometallic compounds, radicals, aldehydes, ketones, carboxylic acids and their derivatives, enolates, aromatic systems, amines, heterocyclic compounds, and modern methods and techniques in organic structure elucidation.
CHEM 2510	Analytical Chemistry	4	Analytical chemistry is a measurement science consisting of a set of powerful ideas and methods that are useful in all fields of science and medicine. The course teaches basic theory and knowledge of analtical chemistry. The course to be covered include instrumental methods of analysis, theorem of acid-base and redox titrations as well as the principles of buffer solution and precipitation equilibria, etc. The laboratory of this course will teach students skills in dealing with substances and apparatus in quantitative methods. In this course, you should make chemical measurements yourself and you also need to understand analytical results reported by others.
CHEM 3500	Fundamentals of Thermodynamics	4	Thermodynamics is one of the most basic of physical sciences and almost defines the field of Mechanical Engineering. Topics include properties of a simple pure compressible substance, equations of state, the first law of thermodynamics, the second law of thermodynamics, internal energy, specific heats, entropy, and the application of the first law to a system or a control volume. Additionally, the course covers free energies, enthalpy, chemical potential, and the relationships between these quantities in various thermodynamic processes, including phase transformations and equilibrium states. After the completion of this course, students will able to understand basic concepts, laws of thermodynamics and heat transfer and their applications as well.
COMM 1080	Introduction to Public Speaking	3	This course is designed to develop students' skills in public speaking and to provide a comprehensive overview of the theories and practices that underlie effective communication. The content will be covered include: theory, practice, analysis, and ethics of public speaking. Students will learn how to analyze their audience and tailor their messages accordingly, how to organize their thoughts effectively, and how to do rhetorical choice and use various delivery techniques to engage and persuade their listeners.
COMM 3266	Public Relations	3	Advanced public relations course covers strategic principles, crisis communication, media relations, and ethics. Emphasis on critical thinking and practical exercises prepares students for real-world challenges, refining skills in media relations, image management, and ethical decision-making. Graduates excel as skilled practitioners in diverse corporate settings.
COMM 3703	Nonverbal Communication	4	This course explores the integral role of nonverbal communication within the broader human communication system. It examines the various types of nonverbal cues—such as facial expressions, gestures, and posture—that are key to conveying emotions, regulating interactions, and facilitating social coordination. The course emphasizes the functions these cues serve, including emotional expression, relationship management, deception, and interaction dynamics. Additionally, students will investigate how nonverbal communication works alongside verbal language in both everyday and cross-cultural contexts.
COMM 3801	Asia-Pacific Media	3	This course explores the dynamic and rapidly evolving media landscapes in the Asia-Pacific region, focusing on how global, regional, and local forces interact to shape media practices, cultures, and identities. Drawing from the key themes in Asia: Cultural Politics in the Global Age by David Birch, Tony Schirato, and Sanjay Srivastava, the course will critically engage with concepts such as modernity, postcoloniality, globalization, and the information age. Through interdisciplinary readings and discussions, students will gain a nuanced understanding of the media's role in shaping regional identities, the public sphere, and socio-cultural dynamics. The course will emphasize the challenges and opportunities presented by globalization, technological advancements, and the interconnectedness of the Asia-Pacific media sphere.
COMM 3927	Modern Political Communications	4	This course delves into the intricate interplay between media and politics, both domestically and internationally. It scrutinizes the evolving landscape of information dissemination and its impact on political figures and institutions. The course scrutinizes the concept of information as a source of power and delves into the ongoing tension between media entities and governmental bodies. Key topics include the significance of televised debates, the mechanics of political campaigns, and the dynamics of political conventions as orchestrated events. Additionally, it explores the notion of mediated realities, wherein media narratives shape public perceptions of political events.

COMM 4360	Mass Communication and Public Opinion	4	This course examines how mass media and communication shape public opinion, influence political behavior, and interact with institutions, campaigns, and collective action. Students will explore theoretical frameworks, empirical research, and real-world case studies across democratic and non-democratic contexts. Special attention will be given to media effects, polarization, misinformation, foreign policy communication, social movements, and emerging digital technologies. By the end of the course, students will be equipped to critically analyze how opinions are formed, expressed, measured, and mobilized in society.
COMP 1101	Structured Programming Essentials	3	This course introduces the fundamentals of software development and the principles and techniques of structured programming. It also covers the basics of algorithm design, control structures, and modular programming, with a primary focus on data structures, object-oriented programming, an introduction to software engineering, an understanding of the imperative programming paradigm, the foundation of software engineering, including the major development paradigms. The course includes a more in-depth treatment of data structures, providing concrete implementations of abstract library collection types. By the end of the course, students will apply object-oriented programming languages and apply basic programming concepts to solve substantive problems.
COMP 1111	Programming for Data Science	3	Embark on a comprehensive journey into the realm of programming and data science with this introductory course. Delve into Python, a powerful language ideal for beginners, as you explore core concepts like data types, control flows, and functions. Extend your skills into data analysis, utilizing packages such as Pandas and Matplotlib to visualize and interpret data effectively. By the end, you'll possess a solid foundation to approach and solve real-world problems using computational methods.
COMP 1170	Computer Laboratory	1	This introductory course provides students with fundamental knowledge of computer hardware, networking, and programming. Designed for beginners, it combines basic computer concepts with practical skills in network configuration and simple program writing. Students will also learn essential computer applications, including word processing, spreadsheets, databases, email, and internet use. Emphasis is placed on developing confidence in using personal computers independently and understanding computing ethics and resources.
COMP 1305	Computer Programming in Python	3	This course will use Python as our primary programming language and compare it to the structures in other high-level programs. It surveys fundamental concepts in computer programming and data science, including data types, functions, modules, classes, and methods. Additionally, it goes deeper into the testing and debugging of a program. Students are required to write and run basic programs.
COMP 1500	Discrete Mathematics for Computer Science	3	This course introduces fundamental concepts in discrete mathematics with a focus on applicationsin computer science. It provides a theoretical foundation for various aspects of computer science, including algorithms, data structures, and formal methods. Topics covered include logic, set theory, relations, functions, combinatorics, graph theory, and mathematical induction. Emphasis is placedon developing problem-solving skills and applying mathematical reasoning to solve real-worldproblems in computer science.
COMP 2050	Introduction to Computer Science	4	This course serves as a general introduction to computer science, aimed at dispelling the mystery surrounding computers. The computer is presented as a versatile tool capable of solving a wide range of problems. On one level this course teaches students programming concepts, in particular, binary logic and algorithmic problem solving. On another level this course uses programming as a means to an end, focusing on understanding the fundamental problems within computer science, such as looping, searching, sorting, and data structure.
COMP 2112	Data Structures and Algorithms	3	In this course, students engage with advanced programming by exploring the synergy between data structures and programming language features. The course emphasizes the design of large-scale software systems, focusing on object-oriented programming, data abstraction, polymorphism, and higher-order functions. Through a blend of theory and practical applications, students gain proficiency in crafting flexible, efficient, and scalable code structures. The course empowers participants to navigate complex programming challenges and contribute effectively to the development of sophisticated software systems.
COMP 2190	Problem Solving and Reasoning for Computer Scientists	3	This course introduces students to the cognitive strategies, environments, and skills necessary for effective problem solving, with a focus on reasoning applicable to computer science. Students will explore various types of problems—from verbal and mathematical to logical and analogical — and learn structured approaches for analysis, solution generation, and implementation. Emphasis is placed on developing clarity of thought, identifying patterns, understanding fallacies, and communicating solutions effectively. The course will incorporate hands-on exercises, real-world scenarios, and pair problem-solving techniques to develop a deeper understanding of critical thinking and problem-solving methods in both academic and workplace contexts.

COMP 3120	Operating Systems	3	This course provides a comprehensive introduction to the fundamental concepts, theories, and design principles of operating systems. Topics covered include operating system structures, process management, memory management, synchronization, deadlocks, file systems, CPU scheduling, and virtual memory. Students will explore both theoretical underpinnings and practical implementations of operating systems, as well as concepts related to protection and security, distributed systems, and real-time operating systems. By the end of the course, students will have a solid understanding of how operating systems function, manage hardware resources, and ensure system stability and security in a multi-user environment.
COMP 3125	Software Engineering	3	This course provides an in-depth exploration of both object-oriented and traditional software engineering methodologies, building upon the foundational analysis and design concepts previously introduced. It encompasses a comprehensive study of the entire software development lifecycle, from requirements gathering and system design to implementation, testing, and maintenance. The curriculum places significant emphasis on object-oriented principles and the application of the Unified Modeling Language (UML) to model and document software systems. Key topics include the fundamentals of software engineering, such as requirements engineering, software design patterns, system architecture, and quality assurance. The course also covers essential aspects of project management, including planning, scheduling, and risk assessment, to equip students with practical skills for real-world software development projects. Through a combination of lectures, hands-on projects, and case studies, students will gain a thorough understanding of modern software engineering practices and the ability to apply them in diverse development environments.
COMP 3410	Computer Organization	3	This course introduces the principles of computer organization and the hardware and software interface. Students will learn the fundamental abstractions of computer systems, instruction set architectures, data path and control design, memory hierarchy, and parallel processing. Emphasis is placed on both theory and practice, with assignments in performance analysis, assembly programming, simulation, and processor design.
COMP 3960	Systems Programming	4	This course provides a comprehensive introduction to systems-level programming in the C language, emphasizing both fundamental and advanced programming concepts in a Unix environment. Students begin by mastering C syntax, data types, control structures, and formatted input/output. Through hands-on computer labs, they progressively learn about arrays, functions, pointers, strings, and preprocessor directives. The course transitions into the design and organization of larger programs using structures, unions, and enumerations, and explores advanced pointer techniques, low-level memory manipulation, and program modularization. Students will also gain familiarity with the Unix system interface, standard C libraries, and best practices for program design and debugging. Throughout the course, emphasis is placed on understanding how C programs are built and executed, writing efficient and maintainable code, and using system-level featu es for performance and reliability. Regular lab sessions reinforce learning and provide practical experience in building, testing, and troubleshooting C programs in a professional development environment.
COMP 4012	Computer Networking	3	This course provides a comprehensive introduction to computer networking concepts, architectures, protocols, and technologies. Students will explore both theoretical foundations and practical implementations spanning from physical transmission to security and application-layer services. The course follows a layered approach aligned with major reference models such as OSI and TCP/IP.
COMP 4250	Introduction to Quantum Computing	3	This course provides a comprehensive introduction to the field of quantum computing, exploring its theoretical foundations, practical applications, and future potential. Students will gain an understanding of quantum bits, quantum gates, and quantum algorithms, as well as the differences between classical and quantum computation. Topics covers measurement and superpositions, the no-cloning principle, and quantum teleportation. Students will also discuss the current state and future prospects of quantum computing technology.
ECON 1010	Principles of Economics	3	This course provides an introduction to the fundamental concepts and analytical tools of economics. Students will explore how individuals, firms, and governments make decisions under conditions of scarcity, and how these decisions interact in markets to determine prices, production, and income distribution. The course covers both microeconomics (behavior of consumers and firms) and macroeconomics (aggregate economic performance, inflation, unemployment, and economic growth).

ECON 1060	Introduction to Microeconomics	3	This course designed to provide students with a foundational understanding of economic principles at the individual and firm level. The course covers topics such as supply and demand, consumer behavior, production, costs, market structures, and the role of government in the economy. Through a combination of lectures, readings, discussions, and practical exercises, students will develop the analytical tools needed to comprehend and analyze microeconomic concepts and real-world economic issues.
ECON 1080	Introduction to Macroeconomics	3	This course provides students with a comprehensive understanding of the principles, concepts, and analytical tools that govern the study of the broader economic system. Topics contain the components of aggregate demand, national income determination and multiplier theory, business cycles and more. Through a blend of theoretical exploration, real-world applications, and critical thinking exercises, this course offers a solid introduction to the macroeconomic factors that shape national economies and impact global markets.
ECON 2043	Macroeconomic Theory	3	This course is an advanced course that builds upon the foundational concepts introduced in Macroeconomic Theory I, delving deeper into the analysis of macroeconomic phenomena, exploring the dynamics of aggregate economic variables. Topics include national income, employment, the rate of interest, the price level and more. The course is designed for students with a solid understanding of basic macroeconomic principles who wish to gain a more comprehensive and nuanced understanding of macroeconomic theory and its applications.
ECON 2104	Intermediate Microeconomics I	3	This course offers an in-depth analysis of key concepts and models used to understand the behavior of consumers, firms, and markets. This course will explore core areas of microeconomic theory, including economic methodology, consumer theory, the theory of the firm, competitive markets, and efficiency. Emphasis will be placed on understanding how these theories apply to real-world economic policies and decision-making processes. Students will gain insight into how microeconomic principles influence public policy decisions, focusing on how market structures and behavior shape economic outcomes and the role of government intervention.
ECON 2134	Probability and Statistics for Economists	3	This course introduces the fundamental statistics concepts. Probability and statistical conceptsplay an important role in the economic analysis and applications. The emphasis is on usingstatistical methods to make economic decisions. Key topics include descriptive statistics, randomvariables and probability, point and interval estimation, sampling distributions, hypothesistesting. Students will learn the principles of collecting, organizing, and summarizing economicdata.
ECON 3051	Econometrics	3	This course introduces students to the fundamental concepts and techniques of econometrics, focusing on economic applications of statistical methods. Students will learn how to use simple and multiple regression analysis to analyze economic relationships, test hypotheses, and make economic predictions. By the end of the course, students will be able to critically evaluate economic models and apply econometric techniques to real-world economic problems.
ECON 3510	Economics of Less Developed Countries	4	This course examines the economic conditions, challenges, and opportunities in less-developed regions. It explores the factors contributing to underdevelopment, the role of government and international institutions, and strategies for sustainable economic growth and poverty alleviation. Students will develop analytical skills to evaluate development issues and propose evidence-based solutions.
ECON 4101	Applied Game Theory	3	Game theory is a mathematical framework that explores the strategic interactions between rational decision-makers and is widely used in economics, political science, biology, computer science, and many other fields. This course bridges the gap between theory and real-world decision-making by examining the strategic aspects of situations where multiple parties makechoices that impact each other. In this course, students will learn how to model and analyze strategic interactions, including competitive, cooperative, and mixed strategies.
ECON 4225	Public Economics and Fiscal Policy	3	This course provides an analytical examination of the economics of the public sector, focusing on equity and efficiency as primary criteria for public decision-making. It encompasses a study of public choice theory, expenditure theory, public goods, externalities, public provision of private goods, theory of taxation including tax incidence and tax neutrality, principles of fiscal policy, economic stabilization, government borrowing, and federal-provincial fiscal relationships. The course emphasizes technical proficiency and covers core topics in public economics, incorporating both classical and frontier research through theoretical models and empirical analysis.

ECON 4605	Applied Econometrics	3	This course provides a comprehensive introduction to econometrics, focusing on practical application and empirical analysis. Students will learn to construct, estimate, and interpret regression models using real-world data, emphasizing evidence-based insights. Topics include model estimation, hypothesis testing, diagnostic testing, and case studies to reinforce data-driven economic reasoning.
ENGL 1140	College Writing	3	The College Writing is designed to introduce students to various writing genres and help them develop effective communication skills through written expression. The course will focus on the writing process, emphasizing key aspects of academic writing and expository prose. Students will engage in both creative and analytical writing tasks, developing their abilities in crafting clear, coherent, and well-organized texts. Topics covered will include sentence-level issues, paragraph structure, rhetorical strategies, organization, style, and form. By the end of the course, students will be equipped with the skills needed to write effectively in academic and professional settings.
ENGL 1141	Writing Workshop	1	This course offers an immersive introduction to creative writing in a collaborative workshop setting. Students will develop their skills in crafting character-centered stories, poetry, and prose through imaginative exercises, readings, and group discussions. Emphasis is placed on experimentation, constructive critique, and nurturing each writer ' s unique voice.Students will explore diverse genres and perspectives while refining their ability to write and evaluate creative work. By the end of the course, each student will produce a portfolio of polished pieces and may share their work in a final public reading or submission opportunity.
ENGL 1251	Rhetoric and Composition	3	This course introduces students to rhetorical concepts, teaching them to apply these principles in crafting diverse genres of writing tailored to specific rhetorical contexts. Through iterative revision, students refine their drafts, editing their work to achieve polished texts, and engaging in reflective analysis of their writing process. Additionally, students practice reading complex texts and utilizing information technologies.
ENGL 1500	Selected Topics in Literature	3	This course is designed to enhance students' critical reading skills and cultivate their abilities in coherent discourse through the exploration of selected topics in literature and composition. Emphasizing the proper use and acknowledgment of sources, students will engage in discussions and complete written assignments based on readings from various genres. The course aims to develop analytical thinking, writing proficiency, and a deeper appreciation for literature.
ENGL 1544	Introduction to Rhetoric and Academic Research	3	This course is a comprehensive course designed to equip students with the essential skills of persuasive writing and effective communication within the context of academic research. It emphasizes the development of clear, concise, and logically structured arguments supported by evidence derived from rigorous research practices across diverse fields of study. Students will delve into the art of rhetoric as a means to analyze, critique, and produce persuasive texts, both written and spoken.
ENGL 2120	Introduction to Literature	3	This course is focused on building your reading, writing, and research skills through the study of fiction, poetry, and drama. Students will learn to interpret and discuss literary texts, develop arguments, and practice clear, effective composition across analytical and creative forms.
ENGL 2155	Writing Social Science Research	3	This course develops students' ability to write clear, persuasive, and research-based work in the social sciences. Students will practice multiple genres, including journal articles, literature reviews, research proposals, policy briefs, and fieldwork reports, while strengthening skills in argumentation, synthesis, data analysis, and revision.Emphasizing the link between strong research and strong prose, the course prepares students to write for both academic and public audiences. Through an independent research project, workshops, and peer review, students will build sustainable writing habits and prepare for graduate study, publication, and professional applications.
ENGL 2650	Digital Writing and Social Media	3	This advanced writing course examines how digital rhetoric shapes public discourse, identityperformance, and social activism in contemporary media. Drawing on case studies of hashtag movements, algorithmic surveillance, and online self-presentation, students will analyze how digital platforms transform communication. Through research-informed projects, participants will create multimodal content that engages with issues of knowledge equity, community formation, and digital authority. The course emphasizes both critical analysis of digital genresand the development of ethical, effective communication strategies for diverse online audiences.
EXSC 3313	Nutrition and Exercise Science	3	This course explores the scientific and applied principles of nutrition for athletic performance, recovery, and long-term health. Students will analyze the metabolic demands of various sports, evaluate evidence-based dietary strategies, and develop nutrition plans tailored to athletes across training cycles and competitive levels. Students will also delve into the principles of exercise nutrition, learning how to create effective dietary plans to support various types of physical activity, from endurance training to strength and conditioning.

FILM 2100	Introduction to Film Studies	3	This course provides an introduction to the study of film, focusing on the fundamental techniques, vocabulary, and methods of film analysis. Students will explore the aesthetics, forms, styles, and techniques of cinema, learning how to critically engage with film as both an art form and a cultural text. Key areas of study include narrative structure, mise-en-sc è ne, cinematography, editing, sound, and genre theory, along with an examination of influential filmmakers and film movements. Through screenings, discussions, and written assignments, students will develop analytical skills and a deeper understanding of how films convey meaning.
FILM 4211	World Cinema：A Transnational Approach.pdf	4	This course challenges traditional approaches to film history by examining cinema through a transnational lens. We explore how films circulate and create meaning across cultural boundaries, focusing on works that challenge dominant narratives. The curriculum emphasizes postcolonial, feminist, and marginalized perspectives that have reshaped global film culture. Students will analyze how film form intersects with themes of identity, memory, and resistance. This course fosters critical understanding of world cinema as both artistic expression and cultural discourse, moving beyond established canons to appreciate cinema's diverse global voices.
FREN 2080	Intensive French	3	French Intensive is an advanced-level course designed for students who have successfully completed previous French courses or have reached a strong intermediate proficiency in the language. The course aims to strengthen and expand students' grammatical and communicational abilities while introducing more complex language components. It will emphasize idiomatic language use, helping students engage in meaningful and practical communication in a variety of contexts. In addition to refining their fluency, students will practice listening, speaking, reading, and writing, integrating these skills through engaging, real-world activities.
HIST 2002	Twentieth-Century Global History since 1945	3	This course provides a comprehensive examination of the global dynamics and major events that shaped the world during the second half of the twentieth century. The course is divided into three parts, each addressing significant geopolitical, economic, and social changes that shaped the international landscape. Students will engage with specific topics, including the Cold War, the rise of superpowers, emerging nations, regional conflicts, and the impact of global events on the developing world.
HIST 2022	U.S. History Since 1877	3	This course offers a comprehensive exploration of the United States' historical evolution since 1877. It delves into the multifaceted tapestry of American society, with a strong emphasis on the incredible diversity of the American people. Throughout the semester, we will engage in a detailed examination of how an American society comprising numerous cultures and ethnicities has evolved, adapted, and transformed over the past century and a half.
HLTH 4066	Research and Analysis in Nutrition Science	3	This course provides students with a comprehensive foundation in the design, conduct, and analysis of research in Nutrition and Food Science. Drawing on leading texts in the field, students will explore statistical methodologies, experimental designs, data interpretation, and reporting practices. Emphasis is placed on applying statistical principles to real-world nutrition and food science data, with extensive hands-on training using SPSS. By the end of the course, students will be able to critically evaluate research, design rigorous studies, and competently analyze and report data in line with academic and professional standards.
MARK 1300	Introduction to Marketing	3	This course introduces the basic principles of marketing, covering key concepts and processes such as customer relationship management, marketing planning, understanding customers and competitors, developing marketing strategies (segmentation and positioning), and marketing programs (products, pricing, channels, communication). The course will discuss strategic-level marketing concepts and specific analytical methods. Additionally, it will cover topics such as ethical issues in marketing, corporate social responsibility, and the impact of technology on marketing.
MATH 1526	Introduction to Calculus I	4	Calculus I is an introductory course in calculus, designed to provide students with a solid foundation in differential and integral calculus. The course focuses on the fundamental concepts and techniques of calculus and their applications to solve various mathematical problems. This course serves as a prerequisite for higher-level mathematics and science courses.
MATH 2015	Introduction to Calculus II	3	MATH 2015 is the second course in the calculus sequence. It builds upon the concepts covered in MATH 1526 (Calculus I) and delves deeper into integration techniques, applications of integrals, sequences, series, and more. The course aims to develop students' understanding of calculus and its applications in various fields.

MATH 2245	Multivariable Calculus	3	This course extends the principles of calculus from single-variable functions to functions with multiple variables. Topics include vectors, vector-valued functions, Green's Theorem, Stokes' Theorem, and Gauss' Theorem, multivariable functions, partial derivatives, multiple integrals, line integrals, surface integrals, vector fields, and their applications. Additionally, students will explore applications in physics, engineering, and other fields.
MATH 2261	Mathematical Reasoning and Proofs	3	This course bridges advanced mathematics and advanced theoretical study by developing essential proof-writing and analytical skills. Students will master fundamental proof methods including direct proof, contradiction, and mathematical induction while exploring logic, set theory, functions, and relations. The curriculum extends to number theory concepts and real number properties, with particular focus on developing precise mathematical communication and critical reasoning abilities. These foundational skills prepare students for success in upper-level mathematics courses that demand abstract thinking.
MATH 2500	One Variable Calculus II	3	One Variable Calculus provides students with a comprehensive understanding of calculus concepts and techniques that are essential for various STEM disciplines, including engineering, economics, physical and biological sciences, statistics, and data science. The course covers topics such as calculus of elementary transcendental functions, techniques of integration, indeterminate forms, Taylor's formula, and infinite series. Through lectures, problem-solving sessions, and practical exercises, students will develop proficiency in calculus applications and problem-solving strategies. An honors version of the course is available for students seeking additional challenges and advanced learning opportunities.
MATH 2849	Elementary Differential Equations and Laplace Transformations	3	This course is designed to provide a comprehensive introduction to the theory and application of Ordinary Differential Equations (ODEs) with a special focus on solving them using the powerful Laplace Transform. Throughout the course, students will engage in hands-on exercises and computational assignments using mathematical software to solve ODEs and apply the Laplace Transform to various problems. Topics include First order equations, Linear differential equations of higher order, Differential operators, Laplace transforms and more.
MATH 2851	Foundations of Stochastic Processes	3	This course provides a foundational understanding of stochastic processes, focusing on key concepts such as Markov chains, random walks, martingales, Galton-Watson trees, branching processes, Poisson processes, point processes, birth and death processes, queuing theory, stationary processes, as well as simulation and inference for stochastic models. Through theoretical study and practical applications, students will develop the necessary tools to analyze and model random phenomena in various fields including mathematics, statistics, engineering, and finance.
MATH 3006	Abstract Algebra	3	This course explores the foundational concepts and structures of abstract algebra, emphasizing integers, sets, groups, and rings. Topics include properties of integers, group theory (with a focus on permutation and cyclic groups), Lagrange's theorem, subgroups, normal subgroups, quotient groups, and the external direct product of groups. Additionally, the course introduces homomorphisms, isomorphisms, rings, and fields. The focus is on understanding these concepts through rigorous proofs and practical applications in mathematics and related fields.
MATH 3010	Regression Analysis	3	Regression Analysis estimates relationships between independent variables and a dependent variable. This course is intended to introduce the basic ideals and models of regression analysis, including its interpretation and implementation in the statistical software package. Topics of simple linear regression, multiple linear regression, least-squares estimation, hypothesis testing, transformations, generalized and weighted least squares, multicollinearity, variable selection and model building, nonlinear regression model will be included.
MATH 3371	Numerical Methods Analysis	3	Numerical methods play a crucial role in solving complex mathematical problems that often arise in engineering, science, and various fields. The course provides students with a comprehensive introduction to the fundamental numerical techniques used to approximate and solve mathematical problems. Topics include interpolation and polynomial approximation, numerical differentiation and integration, numerical methods of differential equations, error analysis, the number of conditions for a linear system, linear and nonlinear systems. By the end of the course.students will develop the skills necessary to apply numerical methods effectively. MATLAB software will be uses in this course.
MATH 3418	Linear Optimization Techniques	3	This quantitative course is designed to provide students with a comprehensive understanding of mathematical techniques for optimizing linear objective functions subject to linear equality and inequality constraints. The course covers essential topics such as linear programming modeling, the simplex method and its variants, duality theory, post-optimality analysis, and applications in various fields. Additionally, students will explore relevant software tools to implement and solve linear optimization problems.

MATH 4888	Measure Theory and Integration	3	This course is an introductory-level exploration of Fourier analysis, grounded in the theoretical framework of a key textbook. Fourier analysis is a cornerstone of mathematical analysis, bridging abstract measure theory, functional analysis, and concrete applications in signal processing, partial differential equations, and harmonic analysis. The course starts with foundational concepts from real and complex analysis — including Lebesgue measure, integration, and Hilbert space theory—then builds toward core Fourier analysis topics: Fourier series on the unit circle, Fourier transforms on Euclidean space, and their key properties. Students will develop both theoretical rigor and intuitive understanding, using the text to link abstract analysis to Fourier methods. By the end of the course, students will be able to apply Fourier techniques to solve problems in analysis and interpret their relevance in cross-disciplinary contexts.
MECH 2932	Introduction to Systems Engineering	3	Complex problems in science, engineering, and management often require an integrated understanding of systems—their structure, behavior, and interconnections. The course explores the essential ideas behind systems thinking, modeling, and problem-solving within an interdisciplinary framework. Students will learn how to represent, analyze, and design systems through a logical structure of information flow and feedback. Emphasis is placed on conceptual frameworks, system modeling methodologies, and the use of system concepts to address real-world challenges.
MECH 3810	Fluid Mechanics	3	This course introduces the principles of fluid mechanics, emphasizing the study of fluid properties, fluid statics, and dynamics. Topics include the analysis of fluid motion, the application of conservation laws (continuity, momentum, and energy), and the behavior of both viscous and non-viscous flows. Practical applications such as pumps, turbines, flow in pipes, and flow around submerged objects are covered. Dimensional analysis and dynamic similitude are also explored as essential tools for solving real-world fluid mechanics problems.
MGMT 2400	Corporate Strategy and Leadership	3	This course is designed to equip students with the critical skills and strategic thinking necessary for success in dynamic and competitive business environments. It emphasizes the development of leadership capabilities, strategic decision-making, and business mindsets. Through the exploration of frameworks such as Agile, Lean, and Design Thinking, students will enhance their ability to lead teams, foster collaboration, and drive business growth. Core themes include team dynamics, leadership development, negotiation strategies, career progression, and promoting ethical and sustainable business practices. Interactive discussions and practical exercises will empower students to make impactful decisions, advance their careers, and contribute to organizational success.
MUSC 2502	Music Education	3	This course explores the diverse field of music education, focusing on its role in childhood development and educational settings. Students will gain an understanding of the evolution and importance of music education, along with insights into creating effective curricula and instructional strategies. Emphasis is placed on addressing various developmental stages in music learning, fostering creativity and music literacy, and engaging with current trends and practices in music education.
MUSC 2768	Music of the African Diaspora	3	This course examines the musical legacy of the African diaspora, beginning with traditional African music and its transformation through contact with European and Islamic cultures. It follows the emergence of Afro-American musical styles in South and Central America, the Caribbean, and North America, including spirituals, blues, and jazz. The course also explores modern urban popular music in postcolonial Africa and the ongoing global exchange of musical forms.
PSYC 1040	Foundations of Psychology	3	This course provides an overview of the foundational concepts, theories, and methods inpsychology. Topics covered include the history of psychology, research methods, biologicalbases of behavior, nervous system, sensation and perception, language, and thought, learning, memory, motivation, emotion, personality, psychological disorders, and therapy.
PHIL 1230	Reasoning and Critical Thinking	3	Reasoning and Critical Thinking is a course designed to help students develop the essential skills of logical reasoning and critical thinking. Students will learn how to analyze and evaluate arguments, distinguish between valid and invalid reasoning, and identify common fallacies. The course will cover topics such as deductive and inductive argument, logical structures, evaluation of arguments, and the scientific method, etc. Through readings, discussions, and assignments, students will develop their ability and acquire practical techniques to think critically, communicate effectively, and make sound judgments.
PHIL 1500	The Meaning of Life	4	What makes life meaningful? Is meaning something we create or something we discover? This course examines enduring human questions about happiness, love, suffering, freedom, and mortality. Through readings in philosophy, literature, and film, students explore classical and modern attempts to make sense of existence. The class emphasizes discussion, reflection, and personal engagement with ideas that shape our sense of purpose and value.

PHIL 2520	Social Philosophy	4	This course explores how society is structured and how power operates within it. We will explore how social structures, institutions, and ideologies shape identity, power, freedom, and justice. Topics include how gender and race affect social standing, how class influences political and economic life, and how major philosophical traditions—liberalism, critical social theory, and postmodernism—analyze, justify, or challenge existing social institutions.
PHYS 1401	Physics for Life Sciences I	3	This course offers a comprehensive exploration of American culture from its origins to the present day, examining how identity, ethnicity, religion, region, gender, class, and media have shaped the nation ' s imagination and global image. Through literature, film, popular culture, and critical essays, students will investigate key themes such as the American Dream, immigration, race relations, religious diversity, urbanization, gender and sexuality, youth culture, freedom, and globalization.
PHYS 1411	General Physics Laboratory I	3	This course primarily focuses on the practical skills and techniques in physics experiments. It provides bountiful opportunities to design and conduct a specific experiment. Students are required to have a solid foundation in basic physical concepts. After this course, they can have a profound and systematic understanding of the principles behind physical phenomena. Additionally, the capacity to appropriately apply experimental techniques and analyze lab results.
PHYS 2301	Circuit Theory and Electronics	4	Analysis of circuit variables and elements, including resistive networks, operational amplifiers, and transient responses of RL, RC, and RLC circuits. Investigation of linear and nonlinear circuit behavior, element I-V characteristics, AC power computations, and balanced three-phase systems. Application of Laplace and Fourier transforms in circuit analysis to facilitate frequency-domain interpretations. A laboratory component integrates theoretical principles with practical circuit design and experimentation.
PHYS 4370	Quantum Mechanics	4	This course offers a rigorous introduction to the foundations and applications of quantum mechanics. Beginning with experimental motivations such as the Stern–Gerlach experiment, students will learn how quantum states are represented mathematically, how they evolve in time, and how measurements affect physical systems. Core topics include quantized energy levels, wave mechanics, angular momentum, and perturbation theory. The course progresses to multi-particle systems, identical particles, symmetries, and modern applications such as quantum tunneling, hyperfine interactions, and periodic potentials relevant to solid-state physics.
POLI 2650	Culture Wars	4	This course explores the social, political, and moral conflicts that have shaped the modern United States. Students will examine how deep-seated divisions over religion, morality, race, gender, sexuality, immigration, and national identity have evolved and influenced public discourse, policy, and civic life. Through readings and discussions, the course critically analyzes the historical roots and contemporary manifestations of cultural conflict in the U.S., emphasizing media representation, political polarization, and the impact of social movements.
POLI 2793	Environmental Policy	4	Policymaking frameworks for defining environmental problems and crafting solutions; major regulatory strategies, including the Clean Air Act, the Clean Water Act, and the role of the Environmental Protection Agency; approaches to hazardous waste management and ecosystem-based governance, illustrated by cases such as Love Canal and Chesapeake Bay; historical tensions between economic development and environmental protection, involving oil exploration, federal grazing policies, wildlife conservation, and conflicts over recreational land use; emerging environmental challenges, including climate change, renewable energy development, shale gas extraction, urban growth management, and water resource sustainability; and the evolving impact of political values and trade-offs on environmental policy outcomes.
PSYC 2021	Physiological Psychology	3	This course explores the physiological foundations of behavior, focusing on the structure and function of the nervous system and how it controls behavior. Topics include the basic anatomy of the nervous system, the cellular mechanisms underlying neurotransmission, sensory processes, and cognitive neural functions. We will also examine the biological bases of major psychiatric disorders, with an emphasis on their physiological underpinnings.
PSYC 2040	Introductory Psychology	3	This introductory course offers a comprehensive exploration of the fascinating field of psychology, providing students with a foundational understanding of the mind, behavior, and the scientific principles that underlie psychological research. Through a combination of lectures, readings, discussions, and practical exercises, students will embark on a journey to unravel the complexities of human thought and behavior.

PSYC 2052	Psychological Assessment	3	This course provides a comprehensive introduction to the principles, applications, and contemporary issues of psychological assessment and testing. Students will explore the theoretical foundations of measurement, test construction, reliability and validity, and the ethical and legal standards guiding test use. Emphasis will be placed on the use of psychological tests in diverse applied settings, including clinical, educational, and organizational contexts. Through lectures, demonstrations, and practical exercises, students will develop the critical skills necessary to evaluate, select, and interpret psychological tests responsibly and effectively.
PSYC 2095	Social Psychology	3	The course examines how people interact with each other and their social environment. Studentswill gain an understanding of how social factors shape behavior, thoughts, and emotions, as wellas how individuals influence and are influenced by their social context. The course covers arange of topics including social perception, attitudes, behavior, group process, interpersonalrelationship and language communication. By the end of the course, students should have astrong grasp of the major principles and theories of social psychology and be able to criticallyevaluate research in the field.
PSYC 3200	Applied Social Psychology	3	This course introduces students to the field of applied social psychology, emphasizing how social psychological theories, research methods, and intervention strategies can be used to understand and solve real-world problems. Students will learn the foundations of research design and data collection in applied settings, as well as the steps involved in planning, implementing, and evaluating programmatic interventions. Applications will span diverse domains such as health, education, organizations, media, sports, legal systems, environment, diversity, relationships, and community well-being. By the end of the course, students will be equipped to critically analyze and develop socially informed strategies that promote positive change across a variety of contexts.
PSYC 3252	Introduction to Cognition	3	This course explores the fundamental theories, research, and applications related to cognitive development from infancy through adulthood. Topics include perception, attention, memory, language acquisition, problem-solving, executive function, and the influence of culture and environment on cognitive growth. Emphasis is placed on contemporary research findings and their practical implications for education, parenting, and cognitive enhancement strategies.
PSYC 3500	Drugs and Behavior	3	The study of drugs and behavior explores how psychoactive substances influence the brain, body, and behavior. Emphasizing the principles of behavioral pharmacology, this course examines the biological mechanisms, psychological effects, and social implications of drug use. Students will learn how drugs act on the nervous system, how behavior influences drug effects, and how both pharmacological and environmental factors shape patterns of use, dependence, and addiction. The course integrates research from psychology, neuroscience, and pharmacology to provide a comprehensive understanding of how drugs modify human experience and behavior.
PSYC 3700	Understanding the Self	3	This course explores how individuals construct, experience, and express the self across psychological, social, cultural, and biological dimensions. Students will examine the origins, dynamics, and regulation of self-related processes, including self-awareness, motivation, self-esteem, and identity. Through theoretical readings, empirical research, and reflective writing, the course investigates how the self develops, changes, and adapts within interpersonal and cultural contexts in the modern world.
PSYC 3801	Family Psychology	3	The family is a central influence on human development, behavior, and identity. This course examines the psychological, social, and cultural dimensions of families and intimate relationships in contemporary society. Through theories and empirical research, students explore marriage, partnership, parenting, and family systems across diverse contexts. Topics include changing family structures, communication and conflict, gender and power dynamics, parenting, divorce, resilience, and cross-cultural variations. Emphasis is placed on how psychological processes and social forces interact to shape family functioning and individual well-being.
SOCI 1060	Foundations of Sociology	3	Foundations of Sociology is a comprehensive course designed to provide students with a foundational understanding of the key concepts, theories, and methodologies within the field of sociology. The course aims to develop critical thinking skills and sociological imagination to analyze and interpret social phenomena, structures, and processes. By examining various social institutions, social interaction, and social change, students will gain insights into the complexities of human behavior and social relations.

SOCI 2130	Sustainable Systems	3	This course introduces the concept of sustainable systems and explores a systems-based approach to sustainability. It covers the analysis and design of sustainable agricultural, food, environmental, energy, water, and societal systems. Students will learn how to create products, systems, and services that are socially, environmentally, and economically sustainable. The course emphasizes a multidisciplinary perspective, integrating insights from climate change, materials science, energy, and water management. The goal is to equip students with the knowledge and tools needed to address global sustainability challenges by fostering innovation in sustainable practices.
SOCI 3890	Engineers in Society	3	Engineers create technologies and systems intended to enhance human life, yet these innovations can produce uneven outcomes — benefiting some communities while disadvantaging others. This course invites students to critically examine the ethical, professional, and societal responsibilities of engineers in a globalized and technology-driven world. Students will explore how engineering decisions intersect with issues of equity, sustainability, globalization, artificial intelligence, and corporate responsibility. Through theoretical inquiry and real-world case studies, students will cultivate the ethical reasoning, professional judgment, and moral imagination needed to navigate the complex impacts of engineering on diverse local and global populations.
SOCI 4815	Social Work Practice With Families	3	Focusing on the family as a dynamic and interconnected system, this course explores theories, practices, and intervention strategies relevant to social work with diverse family structures. It examines family roles, rules, relationships, communication patterns, and the influence of cultural, economic, and psychosocial factors on family functioning. Students will learn to assess family systems and apply evidence-based approaches to support families in managing life challenges, mental health issues, intergenerational conflict, and transitions such as divorce or migration. Emphasis is placed on ethical, culturally sensitive, and strengths-based social work practice with families across the life course.
STAT 1100	Introduction to Statistics	3	This course is an introduction to statistics, focusing on fundamental concepts and techniques foranalyzing and interpreting data. Topics covered include descriptive statistics, probability, probability distributions, statistical inferences, and various statistical analyses. Emphasis will beplaced on applying statistical concepts to real-world problems and developing critical thinkingskills.
STAT 1200	Introductory Probability and Statistics	3	This course serves as a foundational exploration of Probability and Statistics, equipping students with essential tools to understand and analyze uncertainty in various real-world scenarios. The curriculum encompasses key concepts in conditional probability, independence, discrete and continuous random variables, mean and variance, descriptive statistics, and statistical inference.
STAT 2140	Applied Statistics Research	3	The applied statistics course provides students with the fundamental knowledge and practical skills needed to analyze and interpret data. The course introduces students to the practical application of statistical methods in various fields. Topics include residual analysis, contingency tables, analysis of variance, proportionality inference, goodness of fit, tests for normality, two-sample comparisons, regression and correlation, tests for linearity and outliers. Students will develop the ability to apply statistical techniques to solve problems, make predictions, and derive meaningful insights from data. The course provides a solid foundation for those pursuing further studies in statistics, data science, or related fields.
STAT 3055	Introduction to R for Data Science	3	This course introduces students to the fundamental concepts in data science, covering the entire data science workflow, various aspects of statistical and machine learning techniques. It explores the R programming language and R packages for data manipulation, visualization, and modeling. Through hands-on laboratory sessions, students will engage in practical exercises, turning raw data into meaningful insights, knowledge, and understanding, and effectively communicating analytical results using R, RStudio and R Markdown.
STAT 4202	Mathematical Statistics	3	An advanced course designed to provide a rigorous foundation in mathematical statistics. This course will delve into the core concepts and methods used in statistical inference, including point estimation, interval estimation, and hypothesis testing. Students will learn how to develop and evaluate statistical models, estimate parameters, and make inferences about populations based on sample data. The course emphasizes both theoretical foundations and practical applications, preparing students for further study or work in statistics, data science, and related fields.
STAT 4602	Statistical Inference and Regression	3	This course provides a rigorous introduction to the theory and methods of statistical inference and regression analysis. Topics include point and interval estimation, hypothesis testing, properties of estimators, distribution-free methods, and statistical power. Applications extend to simple and multiple linear regression, analysis of variance (ANOVA), and models for count data. Emphasis is placed on developing both theoretical understanding and practical skills in analyzing real-world data using modern statistical tools.