

International Credit Program at Elmira College
Winter 2027 Course Listing as of 09/30/2026

ACCT 1060	Principles of Financial Accounting	3	This course introduces fundamental principles and concepts of financial accounting, providing students with a comprehensive understanding of the financial reporting process. Topics covered include the accounting cycle, preparation of financial statements, and analysis of financial information. Students will develop the skills necessary to analyze, interpret, and communicate financial information to support decision-making.
ANTH 2800	Theories of Culture and Society	3	This course introduces major theories of culture and society in sociocultural anthropology. It examines the development of anthropological thought, including key approaches such as functionalism, structuralism, historical materialism, poststructuralism, feminist anthropology, and postcolonialism. Students explore how anthropologists understand culture, society, power, gender, colonialism, and globalization, while learning to apply theoretical ideas to contemporary social and cultural issues.
ARTH 1160	History of Jazz	3	This course provides a general survey of the history of jazz from its beginnings to the present. Students will explore the historical, theoretical, and critical dimensions of jazz, coupled with hands-on experience in the creative process. The curriculum emphasizes a study of the stylistic and historical components of jazz, including an analysis of influential jazz composers and performers. The course places these elements within the broader context of cultural and artistic movements in the world.
ARTH 3701	Music History	3	This course explores the rich tapestry of European music from the Middle Ages to the present. Delve into the evolution of musical styles, key composers, and the cultural contexts that shaped the sounds of these era. This course offers a fascinating journey through the evolution of musical styles, composers, and cultural influences that have shaped Western music over several centuries.
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.
BIOL 1245	Exploration to General Biology II	4	This course is the second part of a comprehensive introduction to biological sciences, focusing on the diversity of life, ecology, and physiology. It explores the fundamental principles governing organisms, their interactions with the environment, and their evolutionary history. The course examines the structure and function of plants and animals, ecological dynamics, and the impact of human activities on biodiversity and ecosystems. Students will develop analytical and critical thinking skills through lectures, discussions, and laboratory activities, preparing them for advanced studies in biological sciences.

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CHEM 1721	General Chemistry I	4	General Chemistry I is an introductory course that provides students with a foundational understanding of the principles and theories of chemistry. Topics covered include atomic structure, chemical bonding, stoichiometry, kinetic molecular description of the states of matter. Emphasis will be placed on developing problem-solving skills and critical thinking in the context of chemical phenomena. Laboratory experiments and demonstrations will complement theoretical concepts to enhance understanding.
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 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.
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 2095	Organizational Communication	3	Organizational communication, as a field of study, analyzes how the actions of people inside and outside organizations are coordinated and controlled to achieve some collective outcomes. It is also concerned with the ways that individuals are shaped by those organizational interactions. Therefore, this course will attempt to show how communication is key to understanding how organizations function. The course covers organizational communication theories, interaction in organizations and influence of new technologies.
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

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COMP 1500	Discrete Mathematics for Computer Science	3	This course introduces fundamental concepts in discrete mathematics with a focus on applications in 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 placed on developing problem-solving skills and applying mathematical reasoning to solve real-world problems 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 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 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.

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COMP 3691	Artificial Intelligence	4	Starting from many practical situations, this course will provide students with the basic concepts and techniques to help students understand artificial intelligence. The course will also cover ethical considerations and real-world applications of artificial intelligence. Students will learn the fundamentals of artificial intelligence, including problem solving, machine learning and natural language processing, AI programming and development. The goal is to provide students with practical hands-on skills to solve AI problems through programming assignments.
COMP 4260	Deep Learning	4	This course introduces the basic concepts and applications of artificial intelligence, machine learning, and deep learning. Students will learn the foundations of neural networks, data preprocessing, model training, and deep learning techniques using Python and modern frameworks. Topics include neural networks, optimization, convolutional and recurrent neural networks, natural language processing, transformers, and generative models. Through lectures and laboratory activities, students will gain hands-on experience applying deep learning methods to text and image data.
COMP 4981	Stochastic Algorithms	4	This course examines stochastic processes and their application to the design and analysis of stochastic algorithms in statistics and machine learning. Topics include Markov chains, Monte Carlo and Markov chain Monte Carlo methods, stochastic approximation, stochastic optimization, and convergence analysis. Through lectures, assignments, quizzes, laboratory exercises, and a final research paper, students connect theoretical results with computational and practical applications.
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.

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ECON 2048	Money and Banking	3	The course is designed to provide students with an overview of the field of money and banking and its significance in the economy. It explores the intricate relationship between money, financial markets, and the macroeconomy. Main topics include money, interest rates, the stock market, banking industry, financial markets, financial Regulation and monetary policy in the economy, etc. At the end of the course, students will understand better the role of money and the financial market in our economy.
ECON 2134	Probability and Statistics for Economists	3	This course introduces the fundamental statistics concepts. Probability and statistical concepts play an important role in the economic analysis and applications. The emphasis is on using statistical methods to make economic decisions. Key topics include descriptive statistics, random variables and probability, point and interval estimation, sampling distributions, hypothesis testing. Students will learn the principles of collecting, organizing, and summarizing economic data.
ECON 2920	Foundations of Financial Economics	3	This course provides students with a comprehensive understanding of the fundamental principles and theories governing financial markets and economic decision-making. It covers topics such as the present value model, excess volatility, the term structure of interest rates, arbitrage conditions in foreign exchange markets, consumption, portfolio choice, the equity premium, asset valuation, risk and return, investment decisions, behavioural finance theory, and asset pricing models. Through theoretical exploration and practical applications, students will gain insights into the dynamics of financial markets and the factors influencing asset prices, investment strategies, and corporate finance decisions.
ECON 3040	Intermediate Macroeconomics I	3	Intermediate Macroeconomics I delves into the core concepts and models essential for understanding the functioning of modern economies. The course covers the short-run, medium-run, and long-run behavior of aggregate economies, focusing on output, unemployment, inflation, and growth. It introduces students to analytical tools and macroeconomic frameworks to evaluate economic performance, policy decisions, and global economic interconnections. Real-world applications are emphasized to foster a comprehensive understanding of macroeconomic theories and their implications.
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.

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ECON 3120	Industrial Organization	3	This course provides an introductory exploration of strategic behaviors exhibited by firms operating within imperfectly competitive markets. Topics covered encompass various aspects such as market concentration, mergers, entry deterrence, product differentiation, advertising, and regulation. Additionally, the course delves into the theory of industrial organization, emphasizing the analysis of strategic interactions among market participants in scenarios with limited competition. Drawing upon principles from Microeconomics and Game Theory, students will examine the behavior of profit-maximizing firms, exploring market structures and competitive strategies. The curriculum includes a comprehensive review of firm theory, analysis of monopolistic conduct, and game theoretic methods to study oligopolistic behavior across different competitive environments. Real-world applications are integrated throughout the course, providing insights into industry performance and regulatory considerations.
ECON 3580	Empirical Economics	3	This course introduces students to the fundamental statistical and empirical methods used in economics. Students learn how to organize, visualize, summarize, and analyze economic data and how to use statistical inference and regression techniques to investigate economic relationships. The course emphasizes practical data analysis, interpretation of statistical results, and the presentation of empirical findings.
ECON 3700	Labour Economics	3	The main objective of the course is to foster a comprehensive understanding of the theoretical and empirical foundations of the labour market. This course uses many examples drawn from state-of-the-art studies in labor economics literature. The topics include labour supply, labour demand, labour market, union, wage structure, compensating differentials and Phillips curve.
ECON 4115	International Finance	3	ECON 4115 provides students with engaging, balanced coverage of the key concepts and practical applications of International Finance. Topics covered include balance of payments, exchange rates, economic policies, International Monetary System, financial globalization and International financial institutions. Core theoretical principles will be complemented by a series of application chapters that confront policy questions using the latest empirical work, data, and policy debates.
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.

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ENGL 1150	Writing as Critical Inquiry	3	This course is designed to elevate your proficiency in writing, reading, and research. Through critical examination of texts, you will refine your reading skills, pose thought-provoking questions, and establish meaningful connections that will be incorporated into your writing. Employing rhetorical strategies, you will craft well-supported claims within discussions centered on diverse literacy perspectives. The course aims to not only enhance your writing abilities but also deepen your understanding of the nuanced interplay between reading, questioning, and research in the construction of compelling and informed written expressions.
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 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.
ERTH 4500	Natural Resource Policy and Management	3	This course examines the principles, institutions, and strategies involved in the development and management of natural resource policies. Students explore how political, economic, social, and environmental factors influence decisions concerning forests, water, wildlife, fisheries, energy, minerals, land, and biodiversity. The course emphasizes natural resource governance, stakeholder participation, resource economics, environmental regulation, policy analysis, and sustainable management. Through case studies and contemporary issues, students evaluate policy alternatives and management strategies for addressing complex natural resource challenges at local, national, and international levels.
FILM 2650	German Literature and Film	3	This course explores major works of German-language literature and film from the 20th and 21st centuries, focusing on the relationship between textual and visual storytelling. Through close reading and film analysis, students examine how literary and cinematic works reflect and shape cultural, historical, and social developments in German-speaking contexts. Particular attention is given to intertextuality, adaptation, and the interplay between narrative forms across media. Students engage critically with primary texts and films as well as relevant academic scholarship in both German and English.
FILM 2850	Film and Religion	3	This course explores the relationship between religion and film and how movies represent religious beliefs, symbols, values, and experiences. Students examine films from different genres and cultures to explore themes such as faith, doubt, suffering, morality, death, spirituality, and identity. The course also considers how visual storytelling shapes ideas about religion and society and develops students' ability to discuss religious and cultural issues critically and respectfully.

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FILM 3460	Nazis in Film	4	This course explores changing representations of Nazis in German film, from the propaganda of the “Third Reich” to postwar cinematic reckonings with guilt, memory, and moral responsibility. It examines how German filmmakers across decades have depicted the longing for strong leadership, pleasure at inflicting pain on enemies, and fear of racial and cultural others. Through close readings of key films, historical contexts, and evolving aesthetic strategies, students will analyze how cinema both shaped and reflected Germany’s confrontation with its Nazi past. The course considers film as a site of national self-examination and ideological struggle, tracing the transformation from glorification to condemnation and, more recently, to ironic or revisionist portrayals.
FINC 2020	Introduction to Finance	3	This course provides an introduction to the fundamental concepts and principles of finance. Topics include financial statement analysis, time value of money, valuation of bonds and stocks, capital budgeting, risk and return, cost of capital, capital structure, dividend policy, and short-term financial management. Students will develop the knowledge and analytical skills needed to evaluate financial decisions and understand how firms manage investments, financing, and cash flows.
FINC 3500	Corporate Finance	3	Corporate Finance is designed to provide students with a comprehensive understanding of financial principles and techniques relevant to decision-making within corporations. The course covers various topics such as capital budgeting, cost of capital, financial analysis, capital structure, dividend policy, and risk management. Through theoretical concepts and practical applications, students will develop the skills necessary to evaluate financial opportunities and make informed strategic decisions to maximize shareholder value.
GEOG 2070	Remote Sensing	4	This course comprehensively introduces the principles, physics, sensor technology, processing, and applications of remote sensing across the electromagnetic spectrum, with a focus on Earth systems, including the atmosphere, land, and oceans. It covers the basic scientific principles of remote sensing, the physics of electromagnetic radiation, and the complex interactions between radiation and the Earth's surface and atmosphere. Laboratory sessions require students to apply theoretical concepts to data collection and interpretation using software such as Geomatica© and SNAP.
HIST 1207	The History of Food	4	This course explores the global history of food from prehistory to the present, examining how eating has shaped culture, politics, and everyday life. Students will study the origins of agriculture, the exchange of crops and cuisines through trade and empire, and the ties between food, slavery, and industrialization. Topics include famine, religion, national identity, and modern food crises. Through global and historical perspectives, the course reveals how food connects power, belief, and identity across time and place.

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HIST 2021	Introduction U.S. History to 1876	3	This course presents the political, social, economic, and cultural history of the United States from the beginning of the colonial period to the end of reconstruction in 1876. Exploring topics such as the colonial period, revolution, confederacy and constitution, the Civil War and reconstruction, students will examine the fundamental events and ideas that shaped the nation and its people during this critical period. Students gain a comprehensive understanding of the United States history to 1876.
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.
HIST 2620	History of Civil Rights	3	Exploring the complex struggle for equality in the United States, this course examines the evolution of civil rights from the post-Civil War Reconstruction era to the present day. It analyzes the legal, political, and cultural dimensions of movements for racial justice, gender equality, and broader human rights. Special emphasis is placed on the African American civil rights movement of the 1950s and 1960s, while also addressing the roles of women, Indigenous peoples, immigrants, LGBTQ+ communities, and labor activists in advancing civil rights in America.
MARK 2694	Arts Marketing	3	This course introduces the principles, strategies, and practices of marketing within the arts and cultural sector. The course examines the changing landscape of arts marketing, with emphasis on audience development, community engagement, arts communication, audience experience, pricing, access, competitive positioning, and digital marketing. It considers the distinctive characteristics of performing arts organizations, museums, and galleries and explores how arts organizations can create audience value, strengthen participation, and develop integrated marketing strategies through contemporary case studies.
MATH 1450	Quantitative Reasoning	3	This course develops quantitative reasoning skills for interpreting information, solving problems, making informed decisions, and critically evaluating mathematical claims in everyday and societal contexts. Students explore mathematical concepts through applications involving media, culture, employment, personal finance, statistics, probability, risk, modeling, the arts, politics, and business.
MATH 1526	Introduction to Calculus I	4	Calculus I introduces the fundamental concepts of differential and integral calculus. Students will develop an understanding of functions, limits, derivatives, and integrals, along with practical techniques and applications. This course provides the foundation for further study in mathematics, science, and engineering

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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 (Introduction to 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 field.
MATH 2016	Introduction to Mathematical Methods	3	Mathematical Methods is an introductory course designed to equip students with fundamental mathematical tools necessary for advanced studies in various fields such as physics, engineering, economics, and computer science. The course covers topics including calculus, linear algebra, differential equations, and probability theory. Through lectures, problem-solving sessions, and practical applications, students will develop proficiency in mathematical techniques essential for modeling, analysis, and problem-solving in diverse disciplines.
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 2455	Introduction to Biostatistics	3	This course introduces probability and statistical analysis with applications in biostatistics, focusing on biological, health, and environmental sciences. Students will explore key probability distributions, hypothesis testing, regression, and using computational tools for data analysis. The purpose of the course is to introduce students to foundational concepts within the field, foster a statistical perspective for interpreting health-related data, and develop essential critical evaluation skills to assess the credibility of research evidence.
MATH 2814	Engineering Mathematics	3	This course introduces fundamental mathematical concepts and techniques essential for engineering analysis and problem-solving. Topics include applications of integration, integration techniques, differential equations, parametric and polar curves, sequences and series, Taylor series, vectors, vector functions, and multivariable calculus. Emphasis is placed on applying mathematical methods to model and analyze engineering problems, including applications in physics, mechanics, economics, biology, and other technical fields. Students will develop analytical skills and mathematical reasoning required for advanced engineering courses.
MATH 2825	Introduction to Complex Analysis	3	This course provides a comprehensive introduction to complex variable theory and its applications to current engineering problems. It deals with complex numbers, analytic functions, integration, Laurent series, residue calculus and conformal mappings. The course also covers one or more applications of the theory are reviewed.

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MATH 3009	Introduction to Calculus III	3	Calculus III builds on single-variable calculus to introduce multivariable calculus, vector-valued functions, and advanced integration techniques in two and three dimensions. Students will explore parametric and polar representations of curves, sequences and series, vector geometry, functions of several variables, multiple integrals, and vector calculus.
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 3020	Experimental Design and Analysis	4	This course offers a step-by-step guide to the experimental planning process and the ensuing analysis of normally distributed data. We will not only examine the topics of sample size, crossed treatment factors, blocking factors, factorial experiments, nested models, and split-plot design, but also discuss response surface methodology, fractional factorial experiments, random effects and variance components, and computer experiments.
MATH 3100	Applied Linear Algebra	3	Applied Linear Algebra is a course that focuses on the practical applications of linear algebra. The course builds upon the foundational concepts of linear algebra and explores their real-world relevance and problem-solving techniques. Students will learn the knowledge related to the topics of vector spaces, linear equations, eigenvalue problems, orthogonality, least squares, symmetric matrices and quadratic forms, etc. By the end of the course, students are expected to gain the ability to apply linear algebraic methods and tools to analyze and solve problems in real life.
MATH 3330	Multivariate Statistical Methods	3	This module deals with the theories and techniques of multivariate statistical analysis and their applications. It covers matrices, random vectors, Multivariate Normal Distribution, estimation and hypothesis testing, regression models, Principal Components Analysis, Factor Analysis, Cluster Analysis, Discriminant Analysis and other core contents of multivariate statistical analysis. This also includes applications of data set using statistical software.
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 used in this course.

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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 4525	Survey Sampling	3	This course focusing on the principles and techniques of sampling methods for survey research. It provides a thorough introduction to sampling methods, including simple random sampling, systematic sampling, stratified sampling, and cluster sampling. The course also covers advanced topics such as estimation techniques for domain totals/means, ratio estimation, post-stratification, and treatment of missing data. Additionally, students will gain hands-on experience in analyzing survey data using statistical software packages.
PHIL 1100	Introduction to Philosophy	3	This course introduces students to philosophical inquiry, facilitating a thorough examination of essential questions that have influenced human thought across history. By critically analyzing fundamental philosophical themes, students will cultivate a profound comprehension of reality, the boundaries and origins of knowledge, the notion of God, and the quest for meaning in human life.
PHIL 1120	World Religion I	3	This course provides a comprehensive introduction to the major religious traditions of Eastern cultures, focusing on their historical development, core beliefs, rituals, texts, and practices. Through a detailed study of Hinduism, Buddhism, Jainism, Sikhism, Confucianism, Daoism, and Shinto, students will explore the philosophical, ethical, and spiritual dimensions of these traditions. Special emphasis is placed on the interplay between religion, culture, and society, as well as the role of Eastern traditions in shaping global perspectives on spirituality and ethics.
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.

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PHYS 1401	Physics for Life Sciences I	4	The primary goal of this course is the presentation of selected principles and topics in physics with applications to the life sciences. Main topics will involve mechanics, work, energy and power, linear momentum and impulse, angular momentum, rotational motion, heat and the first law of thermodynamics. Students in this course are required to have basic knowledge of calculus and analytical methods.
PHYS 1552	Physics for Life Sciences II	4	Physics for Life Sciences II is a continuation of the introductory Physics for Life Sciences I course, designed specifically for students pursuing studies in the life sciences. This course provides a comprehensive introduction to the principles of electricity and magnetism. It covers the fundamental concepts, laws, and applications of electromagnetism. Students will explore electric fields, magnetic fields, electromagnetic waves, and their interactions with matter. The course includes both theoretical foundations and practical applications, with a focus on developing problem-solving skills.
PHYS 3080	Classical Mechanics	3	This course introduces the fundamental principles and advanced methods of classical mechanics, including Newtonian, Lagrangian, and Hamiltonian mechanics. Topics include motion, conservation laws, oscillations, rigid-body dynamics, central forces, nonlinear systems, collisions, relativity, and continuum mechanics.
PSYC 1500	PSYC 1500 Music and Cognition	4	This course examines the relationship between music and human cognition, with particular emphasis on memory, attention, perception, and related neurocognitive processes. Students explore how listening to, performing, and engaging with music can influence cognitive functioning and everyday behavior. Topics include the effects of music on memory formation and retrieval, attention and distraction, emotional responses to music, and the neurological mechanisms underlying musical cognition. The course also introduces students to the scientific methods used in psychological and cognitive research. Through laboratory activities, demonstrations, experiments, and analysis of research findings, students will apply theoretical concepts to real-world questions about music and cognition.
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.

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PSYC 2056	Introductory Sport and Leisure Psychology	3	This course provides an introduction to the psychological principles that influence participation and performance in sport, exercise, and leisure activities. Students examine motivation, personality, confidence, anxiety, stress, attention, goal setting, imagery, team dynamics, leadership, and psychological skills. The course also explores youth sports, athletic injuries, aggression, drug use, exercise behavior, and career termination. Emphasis is placed on understanding how psychological factors affect athletes, teams, coaches, and individuals involved in sport and leisure activities.
PSYC 2095	Social Psychology	3	The course examines how people interact with each other and their social environment. Students will gain an understanding of how social factors shape behavior, thoughts, and emotions, as well as how individuals influence and are influenced by their social context. The course covers a range of topics including social perception, attitudes, behavior, group process, interpersonal relationship and language communication. By the end of the course, students should have a strong grasp of the major principles and theories of social psychology and be able to critically evaluate research in the field.
PSYC 3206	Personality	3	This course will examine the critical theories and research approaches of personality psychology. The emphasis is placed on the classical and frontier personality theories. It will also review how these theories explain people's difference and individuality, as well as their applications in research and assessment. The course is meant to critically analyze the most important concepts/research in the field of personality psychology
PSYC 3800	Forensic Psychology	3	Forensic Psychology explores the intersection of psychology and the legal system. This course examines how psychological theories and research are applied in criminal investigations, jury decision-making, police interrogations, eyewitness testimony, and the assessment of offenders. Topics include investigative psychology, the psychology of false confessions and false memories, the role of forensic psychologists in the courtroom, risk assessment, and criminal profiling. The course also addresses contemporary issues such as wrongful convictions and the ethical challenges of forensic practice. Students will gain an in-depth understanding of psychological principles in the justice system and develop critical thinking skills applicable to real-world forensic cases.
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.

International Credit Program at Elmira College
Winter 2027 Course Listing as of 09/30/2026

STAT 1100	Introduction to Statistics	3	This course is an introduction to statistics, focusing on fundamental concepts and techniques for analyzing and interpreting data. Topics covered include descriptive statistics, probability, probability distributions, statistical inferences, and various statistical analyses. Emphasis will be placed on applying statistical concepts to real-world problems and developing critical thinking skills.
STAT 2567	Statistics for Business Management	3	This course is designed to provide students with a solid understanding of statistical concepts and techniques that are essential for making informed decisions in management. The curriculum covers fundamental principles of probability, including key definitions and rules, conditional probability, independence, Bayes' theorem, and random variables. It also delves into important probability distributions such as binomial, Poisson, uniform, and normal distributions. Additionally, the course focuses on graphical representations of data, measures of central tendency, and measures of dispersion. By the end of the course, students will be able to apply statistical methods to real-world management problems effectively.
STAT 4120	Data Mining and Statistical Learning	4	This course provides a comprehensive introduction to data mining and statistical learning methods for analyzing complex datasets. Students will learn foundational supervised and unsupervised learning techniques, model evaluation strategies, modern machine learning algorithms, and statistical inference tools. Emphasis is placed on both theoretical understanding and hands-on implementation using R. Topics include regression, classification, resampling methods, regularization, tree-based models, support vector machines, deep learning, survival analysis, clustering, and multiple testing.
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.