

SPRING II 2027 TENTATIVE COURSE OFFERINGS*

The Anatolia American University plans to offer a wide array of courses from the Divisions of Business, Humanities & Social Sciences, and Technology & Science for the Spring II 2027 term. For those students in the Study Abroad Program, prerequisite requirements can be waived if comparable completed coursework at their home institution can be demonstrated.

*Please note that AAU reserves the right to cancel a class due to low enrollment and will work to provide appropriate alternatives for those students impacted by any changes in course offerings.

DIVISION OF BUSINESS

ART 120: Art Appreciation: Principles of Design

The purpose of this course is to introduce students to the general principles of design, that is, to the formal elements in any work of visual art (painting, sculpture, photography, film, contemporary installation art, etc.). The course will be thematic and topical, and will consider examples from all periods of Western and non-Western Art. Included in the formal coursework will be visits to local museums and galleries to examine firsthand artworks illustrating the different principles studied. (3 credits)

BUS 240: International Business Law

The aim of the course is to introduce students to business law in the international environment. The course will cover the following topics: the formation of contracts, performance and non-performance of contracts, breach of contracts, a detailed analysis of commercial supply contracts, international sales and transactions, intellectual property, as well as commercial dispute resolution. The course will also reflect on different ethical dilemmas that businesspersons face today in the global society. It will also cover issues relating to different forms of getting incorporated and labor law. (3 credits)

BUS 399: Global Competitiveness Practicum

The course is designed to give students an opportunity to leverage their existing business skills, as well as, develop new ones in an exciting and team cooperative environment. ACT faculty select a number of local businesses and the students work on consulting assignments for them. GCP faculty assign students to teams, each consisting of generally two ACT and two Ohio University students. Each team is given a different business project and is charged with developing and implementing an approach for completing it in a fashion that satisfies its clients and meets the course objectives. It should be noted that this course is a special summer course offered only to regular ACT and Ohio University students. (3 credits)

ECON 101: Introductory Macroeconomics

An introduction to modern economic analysis and its policy implications. The course centers on the applications of economic theory to national policy problems such as growth, inflation, unemployment, government expenditures and taxation, and the role of money. In addition, it provides a broad introduction to the understanding of the modern national socioeconomic systems in today's globalized economies. (3 credits)

ECON 102: Introductory Microeconomics

A continuation of the introduction to modern economic analysis concentrating on the factors affecting behavior and decision-making by households, business firms, and institutions operating under a mixed socioeconomic system. It also considers the issues of market failures and introduces basic concepts of international economics. (3 credits)

FIN 232: International Finance

This course, designed for students who wish to build upon the basic economic and financial principles they have acquired in the areas of economic and corporate finance, covers both the management and the markets of multinational and European business. Students are exposed to the international business environment, with emphasis on the challenges financial managers face in the dynamic and rapidly expanding field of international and European finance. More specifically, students thoroughly examine recent developments in the following areas: financial management of an internationally-oriented business, international financial markets, multinational capital structure and the cost of capital, hedging of exchange rate movements and financing of international trade, and the international banking environment. (3 credits)

MKTG 101: Introduction to Marketing

The objectives of this course are to introduce the basic marketing concepts, to present the practical use of marketing in modern corporations, to provide students with the elements of market thinking in solving business problems and to prepare them for working in the competitive and dynamic field of marketing. Topics covered include the macro and micro role of marketing, market segmentation, basic principles of marketing research, demographic and behavioral dimensions of consumers, marketing mix, product analysis, product strategies, new product development, distribution channels, pricing policies, introduction to promotion and advertising, and marketing plan construction. The course is enriched with supplementary up-to-date articles, real-world cases, video projections, and marketing simulation. (3 credits)

MKTG 200: Public Relations

The course introduces students to the theories and techniques involved in planning and carrying out appropriate programs in order to influence public opinion and behavior. The students will receive a comprehensive knowledge of Public Relations, public opinion, public practices and problem solving and prevention. (3 credits)

MKTG 301: Entrepreneurial Marketing Strategy

An advanced marketing course that offers in-depth examination and analysis of the basic marketing principles gained in Marketing 101: Introduction to Marketing. Students are taught what is being confronted in a marketing department and what the alternative procedures for carrying out various marketing projects are. A considerable effort is made to provide students with the elements of marketing thinking in structuring marketing strategies for various corporations. Supporting students' ability to think, express themselves, write, speak and argue in marketing terms also constitutes one of the main course objectives. Finally, students are prepared to work in the competitive and dynamic field of marketing and to become professionals with a global perspective. Case analysis and class discussions of current issues are among the important educational and learning tools used. (3 credits)

MKTG 318: Global Marketing

This course addresses marketing management problems, techniques and strategies needed to incorporate the marketing concept into today's global marketplace. More specifically the course deals with modes of foreign market entry, pricing issues, cultural and demographical issues and the impact of foreign currency fluctuations on a firm's performance. (3 credits)

MKTG 330: Consumer Behavior

An analysis of consumer behavior, this module introduces students to the processes that consumers employ in order to select, purchase, use, evaluate, and dispose of products and services that will satisfy their needs. The module will also provide students with an understanding of the influences (external and internal) that determine human behavior. And since consumers vary in the ways that they consume products and services, the module will demonstrate in various ways how and why the analysis of company behavior is critical to the field of marketing. (3 credits)

MNGT 201: Organizational Behavior

The behavior of individuals and groups within the organizational context is presented and analyzed. Different forms of organizational behavior are considered, providing students with exposure to various models. Topics covered include the context of organizational behavior, organizational culture, understanding individual behavior, personality-perception attitudes, job satisfaction, job stress, motivation and learning, interpersonal behavior and dynamics, leadership, power and politics. (3 credits)

MNGT 202: Destination Management

This course offers specialized knowledge of destination management, a topic that has become even more important in contemporary tourism business. Participants will start from an introduction to destination management and the related marketing concepts and roles and will continue to in-depth issues such as destination communications and promotion, destination markets and segments, models of destination management, partnership and strategic cooperation in tourism, primary and secondary tourism offer, creation-distribution-branding of a destination, quality of the product, as well as case studies of good practice in international destination management. (3 credits)

MNGT 303: Events Management

This course will provide industry-specific knowledge of events planning and running. It will offer a comprehensive overview of events management, covering all types of event destinations, venues and operations. Specific attention is paid to the analysis, management and monitoring of the economic and tourism benefits of the events sector. Topics that will be covered include event management, planning, operations, logistics, quality management, coordination of HR, financial management and marketing of events, communications, and evaluation and impact assessment methods. Participants will also be given a wide range of event studies in order to learn from prior industry experience. (3 credits)

MNGT 312: Operations Management

The course provides an overview of concepts, methodologies and applications of production and operations management. Topics include productivity, forecasting demand, location and capacity planning, inventory control, project management, operations scheduling, just-in-time systems, quality control, total quality management. (3 credits)

MNGT 341: Business in Greece and the EU

The aim of the course is to give students in-depth insights into the complexities of the European environment from a global, business, economic, political, and legal perspective. The course also analyzes the various ways in which the European Union institutions influence a company working in or with Europe, with specific emphasis placed on doing business in Greece. (3 credits)

MNGT 460: Contemporary Project Management

Projects represent an increasing percentage of the activities of most organizations. Companies regularly use project management to achieve optimum results through the use of limited resources and under critical time constraints. Due to the continuously changing and increasingly complex environment, there are a large number of companies and individual consultants specializing in the management of projects. Nearly every organization is involved in some sort of project, such as construction, engineering, manufacturing, technology development, or telecommunications. The course will teach students the core fundamentals of project management and builds on their knowledge for effectively initiating a project and managing the project scope. It also helps students develop their skills in project management, to recognize and avoid the causes of project failure, and to manage a project from its initial stage to its completion. (3 credits)

PHIL 203: Ethics

This course is designed to help students develop their critical abilities through the analysis of ethical problems and to introduce them to contemporary ethical theory. Following an introduction to the structure of ethical problems, three classical approaches to the problem of justification are presented: moral obligation (Kant), the consequences of one's actions (Utilitarianism), and personal virtue (Aristotle), respectively. The course also includes discussions of meta-ethical issues concerning the relation between fact and value and the problem of justifying and then generalizing one's ethical judgments including the issue of moral relativism. (3 credits)

PHIL 310: Bio Ethics

This is a required course for all Biological Sciences majors. It is structured to encourage students to consider the values and ethical principles relevant to life and to the application of biomedical technology for the maintenance, extension, and even production of life. The module will provide students with an understanding of core terms, concepts, and decision-making procedures used to discern and defend moral issues mainly related to life's beginning and life's end. The module has two principal aims. First, it considers some of the mainstream Western approaches to moral philosophy, including the ones of Aristotle, Rousseau, and Kant. Second and mainly, it seeks to apply these theories and others to contemporary biomedical sciences. The students will be exposed to some of the most challenging topics in the field, which include: personal autonomy, privacy, confidentiality & medical records, the right to refuse treatment, ethics of research on animals and humans, and philosophical and religious dimensions of life (abortion, assisted reproduction, disability, transplantation, euthanasia, etc.) Finally, the students will develop the ability to identify world views that give rise to moral norms and values. (3 credits)

DIVISION OF HUMANITIES & SOCIAL SCIENCES

COMM 215: Foundations of Contemporary Media

The course aims to acquaint students with the foundations of mass communication and the technological and social dynamics that have shaped their evolution. It will help students gain a better understanding of the evolving media landscape, the role of media industries, the effects of technological breakthroughs, and the ethical, political, and legal debates related to the media. It focuses on the fundamental socio-historical development in the media, both at the level of their role as industrial and cultural institutions, and in the light of the ethical and legal terms of their operation. Special attention is given to the most recent of technological breakthroughs in media development, i.e., the digital revolution, and to its transformative consequences over the whole of the media/cultural industry landscape. (3 credits)

COMM 219: Introduction to Film Studies

The purpose of this course is to introduce students to the study of the cinematic experience from the perspective of those who create films and those who consume them. Students are expected to gain insight into all the stages of filmmaking, from developing the script, to visualizing their stories, organizing and executing the film production, and editing their images and sounds into a final audiovisual product, while discussing abstract questions of history, philosophy, and art. In order to complete their introduction to psychocinematics, students work with the science behind cinematic arts, and investigate the question: "Do we all "see" the same story on screen, and, if not, what makes our responses different?" (3 credits)

COMM 315: Intercultural Understanding and Communication

This course aims to introduce students to a rounded understanding of how interactions between people from different cultural backgrounds take place and the influences that affect such processes. In today's globalized world this seems to be central to our existence as increased cross-cultural contact and exchange has become the norm. Drawing on case studies from diverse social and cultural contexts, students will acquire knowledge and skills for more effective intercultural communication understanding and practices. It provides students with basic knowledge on how communication practices are patterned by culture, helping them to acquire a reflexive approach to their own cultural identity and communication styles. (3 credits)

COMM 317: Communicating Through New Media

This course offers a broad but in-depth introduction to theories of the new media as well as the impact and influence of the new media on various aspects of socio-cultural life, including journalism, art, identities, politics, social issues, and so on. Overall, it adopts an applied approach by examining the various socio-cultural aspects of the new media in concrete settings and thus aims to provide students with an understanding of the crucial changes that most socio-cultural sectors have undergone due to the evolution of new media. (3 credits)

ENG 102: Composition II

This course builds upon the expository writing skills presented in Eng 101. First, it introduces students to the mode of argumentation by analyzing various types of arguments and presenting the essential tactics used in definition, cause, evaluation, refutation and proposal. At the same time, it introduces students to research paper writing by guiding students step-by-step in the process of forming an argumentative thesis, incorporating sources together with their own thinking into papers, and documenting sources. (3 credits)

ENG 204: Business/Professional Communication

The course instructs students in all aspects of professional communication including writing, reading, speaking and listening. It offers business and computer science students in particular opportunities for vocabulary enrichment and structural methods. The course gives students the opportunity to practice and improve their overall use of professional communication skills, both orally and in writing. The overall aim of the course is to enable students to realize their full potential in terms of the sophistication, relevance and fluency of their professional communication skills. (3 credits)

ENG 259: Postcolonial Literature

The course approaches contemporary literature by Anglophone writers from different parts of the world as an index both of distinct cultures and of cultural interaction and/or imposition, examining the ways in which the repercussions of imperialism and colonisation can be traced in these works. Employing the concepts and theory of postcolonial studies and literature, students engage in close reading of selected works in order to determine how major thematic and stylistic concerns are reflective of diverse intellectual and cultural realities. As a critical reading and writing course, it will offer students the opportunity to develop a deeper awareness of the impact of social, political, economic, and cultural contexts on human creativity, types and styles of interaction, and perspectives. (3 credits)

ENG 325: Pedagogical Foundations in Second Language Acquisition

In this course students explore the theory of second language acquisition (SLA) in general and its implications for teaching and learning in particular. The course aims to review general linguistic theory, explore aspects of morphology, phonology, semantics and syntax, theories of 1st and 2nd language acquisition, L1 interference in L2 acquisition, language universals, error analysis, language variations and disorders, sociolinguistics, bilingualism, and application of theory to 2nd language teaching methodology. (3 credits)

ENG 380: The Business of Literature

The course will introduce students to the contemporary mechanics of literary production and to the forces making a book available, promoting it to a best seller, or silencing it. More specifically, it will focus on the changing market conditions for literature, both in a historical perspective and on the basis of selected case-studies. Students will discuss literature within a social and business frame and approach literary production in particular as a revealing cultural phenomenon in the context of a given socioeconomic reality. In doing so, students will sharpen their intellectual and critical skills and become alert to the interdependence of various fields which are traditionally considered separately. In addition, they will address and challenge underpinning canonical practices and biases. (3 credits)

HIS 201: Women in Modern Times

An upper-level survey which studies the evolving conditions in which women have lived and worked in the western world from ca. 1750 to the present. A variety of types of evidence, from legal documents to art and literature, will be examined. Students will also be introduced to contemporary theoretical developments in the larger field of women's studies. (3 credits)

MATH 100: Mathematics for Decision-Making

An introduction to selected areas of mathematics in familiar settings with the objective of developing students' conceptual and problem solving skills. The course includes a study of mathematical concepts selected from graph theory, planning and scheduling techniques, statistics, probability, game theory, growth patterns, coding information, voting systems and apportionment. (3 credits)

MATH 115: Business Calculus

This course covers: rate of change and introduction of the derivative for functions of one variable; applications of the derivative to graphing one-variable functions and to optimization problems; introduction of functions of several variables and partial derivatives; problems of unconstrained and constrained multivariable optimization; applications of differential equations; integration of functions of one variable and applications, and advanced methods of optimization. Emphasis is placed on applications and problem solving through conventional and computer methods. (3 credits)

POL 202: Political Theory

The purpose of this course is to introduce students to political ideas and their different interpretations in modern times. The course will also focus on various key themes and concepts, such as freedom, justice, rights, and sovereignty, and on classic modern schools of political thought. Emphasis will be given to expositions of theory in its historical, social, economic and political context. (3 credits)

POL 233: International Law and Organisations

The aim of this module is to introduce students to the complex, yet interesting system of international law and to the basic concepts and theories of international organizations and how they have changed the mechanisms of reasoning behind the making, implementation and enforcement of international law. A large portion of the module will focus on the fundamental principles of international law, the law of treaties, the relationship between international and domestic law, the imperative of human rights and the impact that international organizations have in the field of international relations, such as peacekeeping operations, human security and terrorism. (3 credits)

POL 332: Human Rights

This senior seminar will focus on the basic principles of human rights. Building on the foundation PS&IR students will have received from Politics 233, International Law and Organizations, it will introduce students to the international and regional conventions and instruments which encode human rights. The course will cover the following issues: how human rights develop; the struggles for human rights, where these rights are encoded; and how to monitor that laws are being enforced. The course will also reflect on how international organizations reflect the values of human rights, not only in their monitoring and campaigning but also in their own practice. (3 credits)

POL 351: Senior Thesis

An intensive, two-semester research project guided by one or more ACT faculty. Required for all PS&IR majors. (3 credits)

PRACT 300: Practicum

The module aims to offer students experiential and service-learning experiences which bring together knowledge acquired in various modules in their field of academic studies and its applications in diverse research and practice-based environments, such as the professional setting, education, not-for-profit, and the arts sector. As such, this placement module prepares students for further independent work and gives them hands-on experience of various professional fields. (3 credits)

PSY 121: Developmental Psychology II

This course will focus on research and applications in the field of human development. Human development is the study of how people change and remain the same across the lifespan. The aim is to provide a review of the progression through the initial developmental stages (prenatal development and early years) that was taught to the students in Developmental I and to further expand their knowledge of understanding on human development from school years through adulthood. Areas such as biological, motor, cognitive, emotional, and social domains will be covered and these processes will be described within a theoretical and empirical framework. (3 credits)

PSY 150: Psychophysiology of Behavior

This is a course which will provide an overview of the principles, theory, and applications of psychophysiological assessment and students will become familiar with current psychophysiological research findings. It is concerned with the biological bases of behavior and it can offer an understanding of psychophysiological aspects of behavior, emotions, and cognition to your foundation of knowledge and skills. The aim of this course is to provide an introduction to major psychophysiological measures, and help students understand what psychophysiolgists do, how they think about psychology and behavior. It will provide an introduction to theory and research in major areas of human psychophysiology with emphasis to the major methodological principles in human psychophysiology as well as to the study of behavior and psychopathology. (3 credits)

PSY 170: Personal Development & Employability

The aim of this course is to improve awareness of career pathways and to improve students' abilities to reflect on, and present, the skills, attributes and experience gained from an academic degree and how this can support them achieve graduate employment. Students will develop their self-awareness and gain an enhanced understanding of what motivates them in the workplace. Students will learn about options available to psychology graduates and other majors and approaches to independently researching career possibilities. Students will also build their appreciation of how to navigate the graduate recruitment process, gaining practical experience of how to market themselves in written applications and in interviews. (3 credits)

PSY 200: Adulthood and Aging

The goal of this course is to provide a critical analysis of the methods and theories that have been applied to the study of human ageing from a psychological perspective through the study of major theories on physical and mental health, personal transitions, and social relationships, as well as death and dying. (3 credits)

PSY 215: Positive Psychology

This course will provide students with the opportunity to learn about Positive Psychology and study how humans prosper in the face of adversity. Students will be introduced to contemporary science-based methods for enhancing the well-being, happiness and positive aspects of human experience. Various findings related to positive states such as happiness, creativity, well-being, optimism, resilience, altruism are discussed and their implications in real life are examined. (3 credits)

PSY 250: Psychopharmacology

This is a course which covers the basic principles of psychopharmacology. The module investigates the questions of what drugs are and how they influence psychological phenomena. Diverse types of drug use and abuse are explored. The course addresses questions on how and why drugs are used for treatment for psychopathological conditions, which are the mechanisms of addiction, what is tolerance and abuse. It also addresses the main and side effects of psychoactive drugs and how these are associated with effects on perception, emotion and behavior. (3 credits)

PSY 320: Dialectical Therapy

The aim of the course is to introduce the fundamental concepts and methods of behavioral therapy and to provide a basic introduction to DBT formulation, and treatment planning. The course also provides an overview of behavioral techniques and will familiarize students with the general theoretical context, as well as the main therapeutic principles within each theoretical approach. It will also consider the applications and empirical based evidence for the success of each approach and is designed to explore how certain approaches in psychotherapy can be employed to provide an insight into mental health problems, drawing on many theories and therapeutic practices to provide a better understanding. (3 credits)

SOC 101: Contemporary Society

This course will explore the discipline of sociology, with a particular focus on the key concepts and issues relating to the study of contemporary society and culture. The course seeks to establish a methodological balance between theoretical grounding and an applied framework as it examines the following thematic issues: social and cultural theoretical perspectives, globalization, power, ethnicity, gender, the mass media, and the dynamics of culture in the contemporary world. (3 credits)

SOSC 215: Studies in Media and Contemporary Society

This module aims to analyze and explore media representations, media regulation, elite-mass communication, media production in a global age, communication and media power. A comparative approach will be employed for analysis of different regional and national communications systems. A final segment of the module will examine the concept of mass society, media power and globalization. Examples and case studies will be taken from American and European sources. (3 credits)

DIVISION OF TECHNOLOGY & SCIENCE

CSC 191: Introduction to Python

This course introduces students to program design, emphasizing the creation of readable, well-documented, and thoroughly tested programs. Through Python, students will explore core programming concepts, including conditionals, functions, scope, iteration, and mutation. Additionally, they will gain hands-on experience with data processing libraries, file I/O, and visualization. (3 credits)

CSC 192: Object Oriented Programming with Python

This course serves as a foundational programming course with a strong emphasis on object-oriented programming (OOP) and software design principles. It is designed to equip students with practical software development skills using Python, one of the most versatile and widely-used programming languages in industry. The course addresses the growing demand for programming literacy across various professional fields, from data analysis to web development and scientific computing. (3 credits)

CSC 300: Mobile Applications Programming

This course focuses on the fundamentals of mobile strategy and development, application architecture and design. Students will have the opportunity to learn the benefits and challenges of mobile application planning, design, development and strategy through real world examples and actual project work. Through readings, discussions, research, and practical “hands-on” projects, students will better understand the current market for mobile applications and develop the fundamental skills necessary to enter the mobile application industry. This course aims to teach how to build cross-platform mobile solutions to solve complex problems using iOS and Android phones and tablets. The course will teach students how to develop software for iOS and Android mobile devices through real world examples and strategies. Students will be guided through a complete mobile development lifecycle during the semester, and be given the opportunity to develop a series of applications. (3 credits)

CSC 325: Distributed Applications

The purpose of the course is to examine in detail the software and hardware technologies prevalent in the Internet and provide an introduction to the principles and methods for creating distributed on-line client/server applications that are the basis for electronic commerce as it is conducted over the Internet. Methods and tools such as HTML, the Common Gateway Interface, PHP, database connectivity tools and MySQL are presented. Coverage is also given to emerging standards for information exchange, encryption and validation. (3 credits)

CSC 340: Introduction to Artificial Intelligence and Machine Learning

An introduction to the field of AI and Machine Learning, covering knowledge representation, decision trees, and rule-based expert systems, as well as the structures and algorithms underlying neural and evolutionary computation. The course addresses the theory and practical implementation of supervised, unsupervised, and reinforcement learning in artificial neural networks, evolutionary computing, and genetic algorithms. Additional topics include dataset preparation for neural network training and testing, the back-propagation algorithm for synaptic weight adjustment, pattern recognition and classification using the multi-layer perceptron architecture, logical and probabilistic neural computation, and the optimization of neural computation using genetic algorithms. All topics are supported by practical examples and in-class design challenges using the Python programming language. The course concludes with a forward-looking examination of the AI frontier, including dedicated memristor-based analogue hardware and the critical ethical imperatives of AI alignment, algorithmic bias, and system transparency. This course serves as a prerequisite for Computer Science students undertaking a capstone project involving AI and/or Machine Learning in their final year of study. (3 credits)

CSC 450: System Analysis and Design

The module introduces the waterfall model for system/application development and the formal tools employed in its various stages. The objectives of the module are to:

- Provide formal tools for functional and non-functional requirements collection and documentation (ERD, UML, DFD, STD's)*
- Define the role of the systems analyst and designer.*
- Build project management and interpersonal communication skills that the system analyst must have.*
- Explain the methodologies that are used for systems analysis and design.*
- Follow through the waterfall model (and discuss deviations therefrom), presenting the relevant tools at each stage.*
- Provide the problem solving background for resolving trade-offs inherent in design.*
- Present principles of quality and correctness testing.*
- Provide students the opportunity to work as a team of analysts and designers in a project to implement the taught methodologies.*

Students develop technical, analytical and business skills that support the pursuit of professional careers and advanced computer science studies. (3 credits)

SEA 101-3: Introduction to Sea Sailing

The aim of this course is to provide the basic yachting skills so that successful students will be safety conscious, have a basic knowledge of sailing and be capable of taking a yacht out without an Instructor on board in light to medium winds in protected waters. The course has both theoretical (In-Class) and practical (On-Board) components; with the latter being the largest part of the course. (3 credits)

SNCB 112: Principles of Biology

This course is designed to introduce the basic principles of modern biology, the framework within which new discoveries are interpreted, and the relations among various branches of biological research. The materials covered include the structural and functional aspects at the molecular and cellular level of the following: cell structure and function, cell organelles, cellular reproduction, cellular respiration, photosynthetic pathways, Mendelian inheritance, DNA structure, replication, gene structure, and gene function and expression/control. (4 credits)

SNCB 299: Research Methods in Biological Sciences

This course is structured to encourage students to think about concepts in biology from a different perspective compared to what they were taught in their first semester of college. During the course, we will investigate the biology of stress responses to environmental factors, like extreme temperature, pollutants, and pathogens, examine the involved mechanisms at different levels of biological organization and discuss the effects of these exposures for an organism and a population. Many different areas related to the topic will be surveyed, including biochemistry, regulation of gene expression, metabolism, cell signaling, physiology, and population dynamics. These topics will be discussed based on the following core concepts of biology: 1. Evolution, 2. Structure and Function, 3. Information flow, 4. Pathways and transformation of energy, 5. Systems Biology. (4 credits)

SNCB 350: Microbiology and Infectious Diseases

This course emphasizes on the microbiology of infectious diseases through analysis of case studies and specific outbreak examples. Upon completion of this course, students will be able to critically discuss the virulence and pathogenicity of infectious agents (bacteria, viruses, fungi and other parasites); centered on the interplay of the host – microbe balance; using indicative case studies. Apply theoretical knowledge of identification & classification, epidemiology, pathogenicity & virulence, of infectious agents on the treatment & control of pathogens using selected examples of infectious diseases. Critically discuss the strategies available to control and treat microbial & viral diseases. (4 credits)

SNCB 400: Senior Seminar

This is a seminar course that will be addressing one or more topics including: Social Medicine, Development and Differentiation, Community Health, Neuropathological Mechanisms, Immunology, Pharmaceutical Chemistry, Human Genetics, Evolutionary Medicine. (4 credits)

SNCE 110: Ecological Principles

The goal of the course is to introduce students to general ecology. It focuses on major ecological concepts in order to provide students with a robust framework of the discipline upon which they can build. Each discussion is organized around two or four major concepts to present the student with a manageable and memorable synthesis of the lecture and it is supported by case histories that provide evidence for the concept and introduce students to the research approaches used in the various areas of ecology. Special emphasis to local environmental problems countries face and the approaches they use in solving these problems. Laboratory included. (4 credits)

SNCN 130: Fundamentals of Human Nutrition

The course explores basic concepts of the science of nutrition. Topics include description and role of nutrients, their dietary sources and their fate into the human body (digestion, absorption etc.); energy balance and weight control; eating disorders; nutrition at different developmental stages (childhood, pregnancy, lactation, old age); nutrition in the development/prevention of human diseases. Emphasis will be given in the use of scientific methodology to explain how nutrients and other food constituents contribute to proper growth, development and health. (4 credits)

SNCP 120: University Physics I, for Science & Engineering

This course is designed to introduce students to the fundamental principles of Mechanics. Topics to be covered include Dynamics, Work, Kinetic and Potential Energy, Systems of Particles, Momentum, Collisions, Rotation, Torque and Angular Momentum, Statics. As far as specific Systems and Force Laws we will look at Oscillations, and Gravity. (4 credits)

SNCP 121: University Physics II, for Science & Engineering

This course is the second of a two-semester sequence of college Physics courses for students in the sciences and engineering. Topics to be covered include electric fields and Coulomb's Law, Gauss' law, capacitors, resistors and DC electric circuits, magnetic fields, induction and the basic properties of electromagnetic waves. In particular, you should learn to: Describe wave motion graphically and algebraically, apply calculus to the study of waves, identify the electric forces acting on a charge, and work with systems of charges, learn and work with the concept of the electric field for point charges and extended bodies, understand the principles Gauss' law and the work with calculus to do this, work with electric potential for systems of charges and extended bodies of charge, understand capacitance and how charge and energy are stored in such devices, understand resistance and know how to work with simple DC networks of resistors, be able to work with small combinations of resistors and capacitors (RC circuits), work with the forces on charges and current elements in magnetic fields, know how moving charges and current elements produce magnetic fields, be able to work with changing magnetic field fluxes which induce EMF's (Faraday's law), work with the inductance of a coil. (4 credits)

STAT 205: Introductory Statistics

This course introduces students to basic statistical concepts and techniques. Each technique is illustrated by examples, which help students to understand not only how the statistical techniques are used, but also why decision-makers need to use them. Topics covered include Frequency Distributions, Statistical Descriptions, Introduction to Probability Theory, Discrete Probability Distributions, Continuous Probability Distributions, Sampling and Sampling Distributions. Emphasis is given to problem solving with the use of statistical software. (3 credits)

STAT 211: Biostatistics with R

An application-oriented introduction to modern biostatistical analysis using R software that includes: experimental and biological study design; exploratory data analysis of biological datasets; random variables; probability models in genetics and ecology; sampling distributions; point and interval estimates; hypothesis tests and linear regression. A wide variety of biological and biomedical applications are used. This module is required for all Biology majors. (3 credits)