FALL 2022 TENTATIVE COURSE OFFERINGS*

The American College of Thessaloniki plans to offer a wide array of courses from the Divisions of Business, Humanities & Social Sciences, and Technology & Science for the Fall 2022 semester. 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 ACT 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**

**Accounting 101: Financial Accounting**
This course is designed to provide students with an understanding of accounting information and the environment in which it is developed and used. Accounting principles and procedures are discussed in order to provide an understanding of the financial accounting process, including the recording, summarizing, and reporting of business transactions, which result in the preparation of financial statements. Topics covered include accounting and the business environment, revenue and cost recognition, asset valuation, depreciation, and an introduction to financial statement analysis. (3 credits)

**Accounting 102: Managerial Accounting**
This course is designed to give insight into the interpretation and use of financial reports for management planning, coordination and control. Students will be exposed to the kind of accounting information needed, where this information can be obtained, and how this information can be used by managers as they carry out their planning, controlling, and decision-making responsibilities. Topics include management accounting vs. financial accounting, classification and behavior of costs, CVP analysis, segmented reporting, standard costing and responsibility accounting. (3 credits)

**Business Administration 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)

**Business Administration 398: Undergraduate Internship in Business**
This course aims towards junior or senior students so as to offer them an opportunity to apply their so far gained academic knowledge. This internship is an academic course and credit is awarded due to learning not just for working. The course’s main goal is to provide students with an opportunity to gain work experience that will enhance and complement their academic learning. The course requirements are designed to provide a structure that will enable students to make connections between what they learn in the classroom and on the job, to further develop analytical and interpersonal skills, and to practice business writing skills. (3 credits)

**Economics 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)
Economics 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)

Finance 201: Financial Management
This course provides a comprehensive introduction to the field of financial management. Emphasis is given to the examination of the processes and the methodology of financial statement analysis that can be applied and used as guidelines in assessing, interpreting and planning financial data to meet the objectives of managing a business entity effectively. Topics covered include goals and functions of financial management, short-term financial management decisions, financial statement analysis, planning and financial forecasting, and time value of money. (3 credits)

Finance 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 economics and corporate finance, covers both the management and the markets of multinational and European businesses. 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)

Management 101: Introduction to Management
This course provides students with knowledge of basic management theories and concepts and introduces them to simple case studies relevant to the theoretical background that is covered. The subjects examined, including some insights from international management, are the following: the external and internal environment within which an organization operates; the historical foundations of Management; the social responsibility of business and the relation between business and government; the managerial function of planning; management by objectives; the organizing function and organizational structures; the function of staffing and personnel selection; the function of leading, motivation and job satisfaction, and finally, the function of controlling and coordinating a firm’s actions to achieve its objectives. (3 credits)

Management 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)

Management 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)

Management 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)
Management 322: Business Strategy
The aim of this course is to enable students to approach the whole organization: marketing, finance, accounting and personnel functions together. Strategy and structure are the central themes of the course. Topics covered include the business environment, the systems approach, industry analysis, organizational intelligence, organizational structuring, organizational power, strategy development and implementation, leadership styles, management of the external environment, and strategic decision-making. (3 credits)

Marketing 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)

Marketing 200: Principles of 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)

Marketing 324: E-Marketing
This course focuses on the key marketing issues in E-Business, comparing marketing concepts in the traditional marketing environment with those employed in E-Business. Topics addressed include Marketing Research on the Web, Personalization/Online Community, Pricing Online, Customer Support and Online Quality, E-Commerce, Business to Business (B2B) Marketing, Advertising/Brand building, Web Promotion, and "Virtual Legality". (3 credits)

Marketing 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 consumer 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 consumer behavior is critical to the field of (3 credits)

DIVISION OF HUMANITIES & SOCIAL SCIENCES

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 course work will be visits to local museums and galleries to examine firsthand artworks illustrating the different principles studied. (3 credits)

English 101: Composition I
This course reviews the basic principles of paragraph writing and introduces the major rhetorical modes of narration, description and exposition through discussion of theory, examination of model essays, and writing practice. In addition, students are introduced to information literacy by spending seven two-hour sessions in the library, developing effective search strategies, understanding the differences between types of resources, and using critical skills with which to evaluate resources. (3 credits)
English 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 them 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)

English 120: Introduction to Literature
The purpose of this course is to introduce students to the literary genres of poetry, prose fiction and drama, and to familiarize them with a variety of literary techniques specific for the analysis of each genre. Students read a selection of classic and contemporary works within these genres and engage in analysis of narrative, study key poetic techniques that make meanings happen and discuss performance possibilities as part of an attempt to become better readers and a more critical audience. The course will also cultivate students’ creative skills, thus enhancing their overall writing abilities and helping them become more conscious writers. Students also gain an enhanced aesthetic appreciation of literature as art and come to value its role in education and everyday life. (3 credits)

English 230: English Literatures
As a study of essentially British literature, the course will analyze contextually the works of seminal writers from the age of Chaucer and on. This course aims to help students explore the interface of literature and society, and to provide them with appropriate tools for more advanced contextualized literary study. Students will learn to contextualize individual texts, recognize literary trends and cultural modes, evaluate literary and social movements, and be able to follow and discuss the evolution of English literatures since the age of Chaucer. To help expose students to literary breadth and textual richness, excerpts of longer texts will be selected. (3 credits)

English 250: Advanced Writing & Professional Communication
The purpose of this course is to provide instruction and practice in the skills and strategies necessary to produce effective written and oral communication in any professional context. The course addresses topics such as persuasive writing techniques, formal professional communication (including executive summaries, legal documentation, letters and reports) as well as intercultural communication, professional writing in the ‘e-world’ and advanced public communication writing & speaking skills. The course is designed to foster skills development in the areas of critical thinking, presentation techniques, application of accepted professional frameworks to new ideas and use of innovative writing, with the aim of preparing students for realistic professional situations. (3 credits)

English 274: Applied Linguistics
The goal of the course is to survey what is currently available to ESL / EFL teachers, to choose and adapt some elements that we think would work in our own teaching realities, and to understand how and why these elements work. A range of methods, techniques, and materials for teaching English are explored. Emphasis will be put on current teaching practice; this includes a variety of communicative language teaching techniques, integrated and discrete approaches to language skills, task-based and project-based learning, and student centered techniques. The course also explores recent work on multiple intelligences, learning styles, and learner motivation, focusing on how these ideas can be used in a variety of teaching situations (3 credits)

English 390: Senior Thesis I
This is the first part of a course in which the students are required to write an 8,000-word thesis. It forms a fundamental component of the BA Hons English curriculum, serving both its pathways, which offers students the opportunity to cultivate the abilities and skills necessary for the realization of a medium-scale research project, from the formulation of the initial research question to its final submission. Combining what is often encountered as either final year Dissertation or Advanced Research & Writing Skills, the course offers an integrative, hands-on and project-focused approach deemed particularly useful both to a wide variety of professional settings and to the advancement to graduate studies. (OU Level 6)
Greek 101: Beginning Modern Greek I
The aim of this course is to develop students’ familiarity with oral and written Greek through dialogues dealing with everyday situations and written material drawn from the popular media. Emphasis is on oral communication. Grammar is learned through dialogues illustrating everyday communication, while students gain practice by role-playing and acting out numerous everyday situations. The vocabulary used meets basic social needs for an environment where Greek is spoken. (3 credits)

History 120: The Modern World
This course takes its point of departure in late eighteenth-century Europe during the period of the Enlightenment and the French Revolution, and concludes in the late twentieth century with the end of the Cold War and the immediate post-Cold War decade. Course materials integrate social, cultural, political, and economic approaches, as well as aspects of historiographical analysis, in order to facilitate study of both the foundations of the contemporary world and questions relating to historical representation. The course also provides coverage of significant global developments in the modern era. (3 credits)

History 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)

Humanities 209: Topics in Mythology and Religion in the Classical World
The course provides a systematic in-depth study of the major mythological characters, deities and myths of (mostly) the Greeks and the Romans through the use of both primary and secondary source material, visual and literary. The approach will be thematic and we will explore the nature and scope of mythology as well as its relation to religion, history and art. Comparisons with associated mythologies of the ancient Mediterranean world will be in place in order to demonstrate the broader historical and cultural framework. The myths and religion will also be studied in terms of their endurance and relevance in the western world as well as in popular culture. Finally, they will function as a setting for the discussion of matters of spirituality in the contemporary world. (3 credits)

Humanities 246: Introduction to American Cultural Studies (formerly History 241)
This course investigates selected key aspects of America’s historical and cultural development from the colonial period of the 17th century to the early 21st century. A wide array of texts, mediums, and genres will be examined to provide the basis for a critical evaluation of the American experience and debates on what constitutes an American identity. Some of the topics addressed include the evolution of colonial society, aspects of political culture, intellectual and literary trends, slavery and the Civil War, the Native Americans, the civil rights movement, America’s role in the world, and acknowledging the myriad of “American voices” of which American cultural expression is comprised. (3 credits)

Philosophy 101: Introduction to Philosophy and Critical Reasoning
The primary aim of this course is to train students in the skills required for critical analysis of discourse. Its secondary aim is to apply these critical analytic skills to the activity of philosophizing. Accordingly, the course is divided into two parts. In the first, the main concern is with the validity of inferences. Students learn sentential and predicate calculus so that they are in a position to check the validity of any argument proposed. In the second part, the main concern is inquiry and to this purpose the students first apply logical theory to methodology (induction, hypothesis, abduction, explanation, reduction theory, definition, distinction, issue, problem), and then apply all these techniques to the discussion of two problems: the existence of God and the problem of mind and its relation to matter. (3 credits)
Philosophy 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)

Politics 101: Contemporary Politics
The purpose of this course is threefold. First, it explores various dimensions of what political scientists call “governance” and what psychologists call “Machiavellian Intelligence,” namely those instances in our daily lives where humans, by their very nature, engage in activity one might call “political.” Second, the course examines different aspects of the formal, systematic study of political phenomena, commonly known as the academic discipline of political science. Finally, it considers basic elements of negotiation, from simple exchanges with neighbors to formal diplomatic relations in contemporary international relations. (3 credits)

Politics 231: International Law
The aim of the course is to introduce students to the basic principles of international (public) law and to the functioning of major international organizations, and to delineate the intensifying organizational and rule-making activity which has come to be characterized as “global governance.” Students will be acquainted with the language and the basic concepts of international law. The role of international organizations, political institutions, political groups, and actors will be a major area of study. The development of international law, its content and effectiveness as a system of rules will be the focus of most of the course. (3 credits)

Politics 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 231, International Law, 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)

Politics 350: Senior Thesis
An intensive, two-semester research project guided by one or more ACT faculty. Required for all PS&IR majors. OU Level 6. Prereq: senior status and permission of advisor. (3 credits)

Research 210: Research Methods and Analysis
This a required course in which students are given the opportunity to develop an understanding of the research process and familiarize themselves with key methodologies and practices in Humanities and Social Sciences research. The module provides students with the knowledge and experience of applying various transferable research skills at conceptualizing, framing, exploring, analyzing and discussing an issue, in light of advancing their academic, research and writing performances throughout their study years and to a graduate degree. Finally, it is designed to provide students with research skills which are in high demand in a variety of contemporary professional settings. (3 credits)
Psychology 101: Introduction to Psychology
This course aims at providing a comprehensive introduction to the essential principles of the academic discipline of psychology by addressing such important topics as the function of the human brain, perception, language, development, learning, motivation, emotion, intelligence, personality, psychological disorders, and social behavior. The student is introduced to major theories of human behavior and is encouraged to assess critically the contribution and applicability of psychological research to daily life through class discussions, presentations and written assignments. (3 credits)

Psychology 130: Cognitive Psychology
This course will help students to acquire knowledge regarding core issues, theories and experimental findings in cognitive psychology. The course intends to cover the main topics of the field of cognitive psychology as the main mental processes play a key role in human behavior, thinking and decision making process. Nowadays, as the information people encounter and the situations they immerse themselves in are diverse, the understanding of the working process of language, perception, learning, memory, etc is necessary. Focus will also be given to the progression of the cognitive field and the investigation of real-world issues through controlled laboratory scientific experimentation. (3 credits)

Psychology 205: Research methods and Statistics I
This is a course in which students are given the opportunity to develop an understanding of the research process and familiarize themselves with main paradigms and key methodologies and methods in Psychology research. It helps students understand the strengths and limitations of different research paradigms, various research methodologies and methods in Psychology. Also students learn a) about the main qualitative-research concepts (code, taxonomy, theme, theory) and b) about key statistics-related concepts (populations, samples, variables). They are introduced respectively to qualitative data analysis, mainly thematic analysis and also to quantitative data analysis and in particular, descriptive statistics where they learn about identification of variables, frequency distributions, measures of central tendency and variability. (3 credits)

Psychology 218: Clinical Psychology I: Psychopathology
This course will help students gain a thorough and critical understanding of clinical issues and specifically, mental health and illness, definition of psychopathology, diagnosis and various factors that should be taken into account in the process of identifying several psychological disorders. As mental health professionals need to be aware of all the important issues and ethics in the clinical field, students need to be acquainted with the main psychological disorders and critically apply theoretical information to case studies and real life examples from professional practice. Therefore, focus will be given to assessment, causation, risk factors and effects of the main psychological disorders but also students will be introduced to the basic principles of treatment and prevention strategies. Moreover, they will be acquainted with issues of stigma and social exclusion so that they are aware of diversity issues and their implication on clinical practice. (3 credits)

Psychology 221: Cognitive neuroscience
This is a course which aims to enable the students have a good grasp of the most recent advances, and a critical assessment of the literature in the field of cognitive neuroscience. Cognitive neuroscience is a rich field that draws on many disciplines from biology, chemistry, psychology, computer science, engineering, mathematics, philosophy and beyond. The objective is to provide a basic background and conceptual knowledge and illustrate the concepts and knowledge that structure the scientific study of cognitive neuroscience. It is associated with modules such as the one on Cognition and on Psychophysiology of behavior. The course addresses questions on how does our brain give rise to our abilities to perceive, act and think. It is a survey of the basic facts, empirical evidence, theories and methods of study in cognitive neuroscience and assist students in exploring how cognition is instantiated in neural activity. Indicative themes are: perceptual and motor processes, decision making, learning and memory, attention, reward processing, reinforcement learning, sensory inference and cognitive control. (3 credits)
Psychology 305: Counselling and Psychotherapy

This course will help students to further deepen their knowledge regarding the prevalent counselling theories and approaches and psychotherapy research and critically evaluate them and apply related theory to case studies from professional practice. They will also get acquainted with the interview process, the therapeutic process and relationship, the counselling skills and the ethical issues on both theoretical and practical basis. Focus will be given to diversity issues in counselling, such as ethnicity, social class, age, gender, sexual orientation, etc. Moreover, the emphasis of this course on experiential learning and personal awareness and development will facilitate students to better comprehend the role of the psychologist in the counselling field and apply the knowledge and skills to their practicum. (3 credits)

Psychology 340: Psychology of addiction

Students are given the opportunity to develop their understanding of psychological and biological aspects of substance misuse and addiction as well as the potential treatment methods. Other non-substance addictions are also discussed such as gambling, internet addiction etc. The course aims to teach students how to assess and diagnose substance use disorders and in short to provide an overview of the psychosocial and neurobiological bases of addiction, the factors that affect addictive behavior and also how to describe and analyze appropriate therapeutic interventions. (3 credits)

Psychology 350: Senior Thesis I

This is a required course for psychology majors. It constitutes the first term of a year-long research project, at the end of which the students are required to submit an 8,000-word thesis. In the Fall Term, they submit a 3000-word draft of the thesis, with main emphasis being the literature review. (3 credits)

Psychology 360: Advanced Applied Statistics for Psychologists

This is a course in which students are given the opportunity to develop an understanding of the research process and familiarize themselves with main paradigms and advanced statistical methodologies in Psychology research. Students will learn the main descriptive statistics techniques, inferential statistics technique, non-parametric tests, correlational analysis and high order (factorial) AN.O.V.A statistical methods. Students will also be given the opportunity to analyze the aforementioned methods using SPSS, using psychological data examples. (3 credits)

Sociology 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)

Social Science 210: Introduction to Global Studies and Human Geographies (formerly History 210)

This course sets out to explore a number of subjects relating to the study of geography and politics. Students will be exposed to topics such as world/regional geography, cartography, geopolitics, politics and the environment, colonial/postcolonial geographies, and development, while the multidimensional and trans-disciplinary nature of geographical and political studies will be emphasized throughout. The course will also investigate such topics as world systems theory, cultural change, and globalizations. (3 credits)
Social Science 349: Contemporary Globalization
This course aims to give the students a complex understanding of the processes of globalization. We will first look at how different theoretical perspectives make sense of globalization, i.e., what it is, whether it is a novel set of phenomena or not, and what its impact is on our world. With the background of this theoretical diversity, we will then go into studying in depth the institutions and impact of globalization. We will explore how globalization shapes and alters the economic, political and social structures of societies, and what specific roles the global institutions play in this transformation. We will also look at the gender dimension of this claim. Finally we will discuss those political movements which criticize and provide alternatives to globalization. (3 credits)

Social Science 399: Service Learning Practicum
The course comprises a combination of theoretical sessions (in-class component) and real-life case study projects. Having a service-learning character, this course enables students to experience in practice and better understand community engagement through placements and implementation of projects in local community NGOs, agencies and organizations. Some identified organizations for students’ placements are organizations that provide services related to health and care, education, environment conservation and citizenship & social activism. The key principle underlying these activities is the co-construction of knowledge through student collaboration. Such a participatory approach facilitates the process of pairing up students across ages, backgrounds and interests and enables a shared, co-experienced understanding of place and community participation among the young people involved. (3 credits)

DIVISION OF TECHNOLOGY & SCIENCE

Computer Science 101: Digital Literacy
This course serves as an introductory course to digital literacy, both on a theoretical and an experiential level, focusing on general purpose computing, networks and the internet, information and data management and social media. Under the umbrella of Computer Science, students are exposed to the fundamental principles of operating systems, human-computer interaction, networking and communication, architecture and organization, computational science, information management, social issues and professional practice and learn to identify and exploit them for everyday organizational tasks. On a practical level, students learn how to use Operating Systems (proprietary and FOSS) and collaborative cloud-based office productivity software; how to publish and present their work using computing and mobile / smart devices and the internet; how to use web 2.0 tools for content creation and delivery (collaborative wikis, blogs, newsgroups, social media platforms); how to create and manage their personal digital identity; how to organize and process data; how to search for and critically evaluate information which is available on the world wide web and scientific literature databases; how to plan projects using modern web-based tools. They are also exposed to technical writing, collaborative informatics projects, public speaking and presenting their work within pre-determined time limits. May be taken as a Computer Science GER. (3 credits)

Computer Science 105: Introduction to Programming I – Structured Programming
This is an introduction to computing and computer programming using the Java or C language. Students are introduced to the basic elements of computing hardware, information technology and computer programming. Programming is explained, demonstrated and practiced using the Java or C programming language. Ultimately the course aims to advance beyond basic computing skills towards software engineering, instructing students to develop autonomy as sophisticated computer users and programmers. May be taken as a Computer Science GER. (3 credits)
Computer Science 106: Introduction to Programming II – Object oriented programming
The course provides a systematic coverage of Object Oriented Modeling and Applications. Topics include Object Models, Object Class Design, Inheritance and Polymorphism, Software Reuse with Classes, Application Modeling, Simulation with Object Classes, and Business Process Modeling with Objects. Object-oriented programming (OOP) is a revolutionary concept that changed the rules in computer program development. OOP is organized around "objects" rather than "actions", data rather than logic. Historically, a program has been viewed as a logical procedure that takes input data, processes it, and produces output data. The programming challenge was seen as how to write the logic, not how to define the data. Object-oriented programming takes the view that, "what we really care about", are the objects we want to manipulate rather than the logic required to manipulate them. The course expands on the material covered in CS105 with the following aims: • Further cultivation of algorithmic thinking and refinement of existing procedural programming skills • Familiarization with the Object Oriented programming methodology • Exposure to Java classes for building graphical interfaces and other extensions (3 credits)

Computer Science 151: Quantitative Computing
The course aims at deepening student quantitative skills by interrelating mathematical modeling and spreadsheet implementation. Students are presented real-world problems encountered in the modern enterprise, with emphasis on spreadsheet computing and are taught both the mathematical background and the necessary structures for tackling the problem with spreadsheets. Emphasis is placed on mutual translation of mathematical model and spreadsheet implementation. Focus is on Business Planning and topics are drawn from Microeconomics, Finance, Marketing, Managerial and Financial Accounting. Mathematical topics covered include: Real numbers and their computer implementation, polynomial, exponential and logarithmic functions, matrices, linear programming and optimization, recursive models, discrete approximation of the derivative and integral. (3 credits)

Computer Science 180: Discrete Structures
This course introduces the mathematical structures and methods that form the foundation of computer science. The material will be motivated by applications from computer science and emphasize: • Techniques: binary and modular arithmetic, set notation, methods of counting, evaluating sums, solving recurrences, ... • Supporting Theory: basics of probability, proof by induction, growth of functions, and analysis techniques and • General problem solving techniques with many applications to real problems. The course material is divided into five modules. Each module starts with a motivating application then goes into techniques related to that application and the theory behind those techniques. Each module ends with one or more fairly deep applications based on the material. These modules are: Computers and Computing: Numbers, Circuits, and Logic; Cryptography: Integers and Modular Arithmetic; Combinatorics: Sets, Counting, and Probability; Algorithmic Analysis: Searching and Sorting; Networks: Graphs and Trees (3 credits)

Computer Science 201: Business Computing
The course aims at presenting Business majors with the basic computing structures needed to support a company’s management. Students will be exposed to data tables from a variety of business activities as well as the database techniques necessary to model and effectively process these data for the purposes of company assessment and planning. Examples of applications residing in the WWW will be presented, analyzed and subsequently implemented by students with the database medium used in the course. (3 credits)
Computer Science 205: Business Data Management
The purpose of COMP SCI 205 is to introduce the idea of business data management, data modeling, and processing methodologies with the use of standalone design tools and personal databases. It aims at fostering proper data design through the relational methodology and developing all necessary data processing and presentation skills. The aims of this course are to: • Define the role of Systems Analyst and Database designer. • Explain System Analysis and interpersonal communication skills that the System Analyst must have. • Explain Project Management and discuss tools that the system analyst must have. • Explain the Methodologies that are used for Systems Analysis and Database Design. • Explain the various tools that certain methodologies use. Provide students the opportunity to work on the most popular database (Oracle), in a project in order to implement the taught methodologies (3 credits).

Computer Science 206: Web Development
CS 206 is an introductory course for beginning web designers. We will explore some essential concepts related to the creation of effective web sites. In the last portion of the course we will concentrate on client-side scripting using the programming language JavaScript. This course aims at introducing students the basic web design guidelines, Fundamentals of Hyper Text Markup Language (HTML), and how to use a Simple HTML Editor as well as Web Authoring Tools. Also, one of the main goals of the course will be to understand what scripting languages are and to be able to develop scripts. (3 credits)

Computer Science 215: Data Structures
The purpose of CS215 is to introduce students to the main concepts and implementation principles of object-oriented programming and data structures, using Java as the programming language. This course builds on the knowledge and skills acquired in CS105 – Introduction to Programming I. The course is split in two parts; the first part deals with object-oriented programming using Java, re-enforcing the fundamental concepts learned in CS105. The second part of the course introduces data structures. The data structures examined include arrays, lists, queues, stacks, trees, heaps, hash tables and graphs. Searching, sorting, inserting, deleting and other simple operations on these structures will also be discussed. (3 credits)

Computer Science 310: Hardware & Computer Architecture
This course addresses the structure and function of modern digital computing devices, ranging from the compilation process down to the hardware level. Despite the pace of change and variability in the fields of informatics, electronics and computer engineering, certain fundamental digital design concepts apply consistently throughout. CS310 students will both gain the relevant theoretical understanding and have a chance to apply it in practice designing, simulating, troubleshooting and optimizing their own combinational and sequential logic circuits. The course concludes with a discussion on system level organization and architecture of modern computing devices. This course builds on knowledge and skills acquired in CS105 – Introduction to Programming I. Upon successful completion of the course students be able to: • Understand and be able to explain the significance and function of fundamental components within a typical modern computing device (processor, memory, I/O, operating system), their interconnections with each other and the outside world. • Comprehend and follow the data flow through the internal structure of a digital microprocessor. • Understand the importance and function of logic gates as primary building components in digital design. • Analyze combinational digital circuits and optimize them using Karnaugh maps. • Be able to design, simulate, troubleshoot and optimize their combinational and sequential digital logic circuits. • Recognize and understand basic Assembly language and Machine Code. (3 credits)

Computer Science 312: Database Management Systems
The purpose of the course is to offer a systematic coverage of modern Database Computing theory and technology. Topics include: Relational Algebra, Data Modeling, Database Design, Client-Server Database Management Systems, Interface Design, trends in Database Systems, combination of Object Oriented Modeling and Relational Databases. (3 credits)
Computer Science 321: Operating Systems
This course deepens understanding of how contemporary computing systems are structured and, in particular, supported by an Operating System. It is a culmination course within the Computing Systems programme thread. Operating Systems are the brain of any computing system. They handle the body/DNA (hardware) as well as behavior (usage of system by user). Following rapid to evolutionary technological developments the field of Operating Systems also undergoes tremendous changes, which constantly evolve the conception of an OS and of course the technological challenges involved in its implementation. The course aims at outlining the role of an OS in a diachronic way while comparing and contrasting design choices spanning the evolution of the field. It aims at defining fundamental needs that a von Neumann machine has from the Operating System in order to be functional, optimal and attractive to the user. The course explains Operating Systems architecture and examines trade-offs involved in different, evolving systems. It further examines diachronic as well as contemporary issues involved in Operating System design by comparing and contrasting relevant design and algorithmic choices. The course involves lab work: Communication with the OS at a low level via a Linux shell and programming tasks addressing aspects of Operating System design and implementation. (3 credits)

Computer Science 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)

Computer Science 340: Artificial Intelligence
This course is an introduction to the field of AI, including an intensive initial introduction to the Python programming language. Indicative AI topics include knowledge representation, problem solving via search, logical and probabilistic reasoning and machine learning algorithms such as decision trees, neural networks, reinforcement learning and genetic algorithms. (3 credits)

Computer Science 350: Software Engineering
After successfully finishing this course students are expected to have in-depth knowledge of all phases of the software engineering lifecycle, i.e. requirements engineering and software design, software design, implementation, verification and validation, quality assessment, software re-engineering, and software reverse engineering methods. In addition to that, students are expected to acquire skills related to communication with the customer, teamwork, time management and global software development. (3 credits)

Computer Science 412: Object Oriented Design Patterns
The course revisits Object Oriented application development methodology at the Senior level examining its effectiveness in the life cycle of professional applications and software reuse through the adoption of Object Oriented Design Patterns. It presupposes the knowledge earned through the introductory line of the Programming Fundamentals programme thread and follows level 5 modules relating to Data Modeling (CS 312) and Systems Design (CS450) while specializing them within the context of Web Development. Currently CSC 325 (Distributed Systems) is a necessary prerequisite concerning web deployment technologies. The module mostly emphasizes the employment of OO concepts to Web Development yet it is of general enough nature for a level 6 module as the design patterns examined are applicable to a wide range of technologies and application domains. (3 credits)
Computer Science 443: Capstone Project I
This is a set of linked courses (CSC 443-444) to be taken in sequence over the course of the senior year. The course aims to give students the opportunity to work in a guided but independent fashion to explore a substantial problem in depth, making practical use of principles, techniques and methodologies acquired elsewhere in the program of studies. It also aims to give experience of carrying out a large piece of individual work and in producing a final project report. It has two distinct phases: the preparatory phase focusing on literature review, assessment of Technologies and Project Specification and the implementation phase focusing on project design, development, documentation and presentation. This course places an emphasis on the role of functions (coordinate systems, properties, graphs and applications of polynomial, rational, logarithmic and exponential functions), solving systems of linear equations, matrix operations, mathematics of finance, and introductory counting techniques. (3 credits)

Mathematics 101: Elements of Finite Mathematics
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. May be taken as a Math and Statistics GER. (3 credits)

Mathematics 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)

Sea Sail 101: 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)

Ecology 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)

Nutrition 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)
Statistics 205: Statistics I
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)