



AMERICAN COLLEGE OF THESSALONIKI – SPRING I 2021 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 Spring I 2021 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 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)

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)

Economics 332: International Economics

The goals and objectives of this course are to facilitate the students understanding of foreign trade flow issues including the causes, the volume and the direction of these flows. Strong emphasis is given to the formulation of industrial trade policies. Topics to be covered include various trade and exchange rate theories, tariffs, and commercial policy, factor movement, regional economic integration, international institutions, international macroeconomic interactions, and international environmental issues and policies. (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 202: Entrepreneurial and Corporate Finance

This course will clearly focus on financing an existing family business, start-ups, corporations, and NGO's, including sound financial management practices. The course will go into depth on how to analyze financial statement, create financial forecasts, and evaluate the various ventures. Tools and methods used in determining how much money a venture actually needs in order to be viable will also be covered. Attention will be devoted to the different types of financing alternatives available to an entrepreneur. The venture capital market will be investigated in detail, including self-financing, debt financing, angel financing, and financing from venture capital firms. Students will be encouraged to understand financing issues and options from the vantage points of the entrepreneur, the lender, and the investor. In short, the course will explore the most important financial issues that an entrepreneur may face. (3 credits)

Finance 220: Investment and Portfolio Management

The principal purpose of this course is to offer a comprehensive introduction to the characteristics and analyses of individual securities as well as the theory and practice of combining securities to form optimal portfolios. It provides an understanding of the general principles of financial and investment decision-making through an examination of asset pricing models and the efficient market hypotheses as well as treatment of interest rates, bond and stock pricing, and bond and stock fund management. (3 credits)

Management 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)

Management 219: International Business

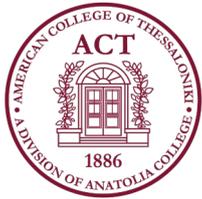
The objective of this course is to present an overview of the global environment within which firms operate. Students are exposed to all aspects of international business and will learn how to interpret international developments and evaluate their consequences for the firm. Among the topics considered are the nature of the multinational corporation, the institutional framework for international business, environmental factors influencing the choice of international investment sites, factors related to business operations in specific countries/regions, and the special circumstances relating to the marketing and financing of international businesses. (3 credits)

Management 330: Entrepreneurship and Innovation

An in-depth study of the legal, financial, marketing and organizational aspects of starting up, implementing, and successfully managing one's own business venture. The major portion of the course, apart from presentation and discussion of theoretical bases involving starting a new business, consists of construction of a detailed business plan. Class members consider all issues involving initiation, building, and controlling a new venture. The main goal is first the analysis and secondly the simulation of an effective business plan based on realistic, contemporary case scenarios. (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 201: Tourism Marketing

Marketing plays a catalytic role in international tourism. Customers are offered today an enormous selection of choices worldwide, while tourism professionals try to distinguish themselves from competition. This course will initially offer general marketing education and then focus in industry-specific applications of marketing. Topics to be covered include the characteristics of a service, their marketing implications, an overview of mix components – product, price, promotion, place, people -, the independence and interdependence of elements, definitions of market segmentation, marketing for hotels and resorts, the product life cycle, the scope, process and role of market research, and secondary information, sources, range and importance. Professional expertise will be brought into class together with case studies of marketing practices. (3 credits)

Marketing 214: Advertising

The primary objective of this course is to introduce students to the challenging world of advertising and promotion. Advertising is examined as a distinctive element of promotion, together with other communication tools. Current developments of advertising are discussed and an integrative perspective is adopted, due to rapid changes and metamorphoses in the advertising business. Emphasis is given to the role of modern marketing communications, the organizational needs and structure in the field of advertising and promotion, determining advertising objectives and budget, creative strategy, media planning, analysis of broadcast and print media, types of support media and other promotional tools. The large number of advertising techniques and applications, as well as students' everyday exposure to thousands of communication messages, recommend the use of cases, projects, real-world examples and class discussions. (3 credits)

Marketing 301: 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)

Marketing 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)

Marketing 320: Marketing Research

The major objective of this course is to introduce students to the useful and multi-purpose theory and practice of marketing research. Application of this theory to product, price, place and promotion strategies, as well as to every practical marketing issue confronting a business organization, is one of the main course goals. Topics that are discussed in detail include the role and the environment of marketing research, planning a research project, secondary sources of information, qualitative interviewing methods, survey-interviewing methods, the basics of sampling, major sampling techniques, questionnaire construction, data-processing, analysis and tabulation, and reporting research findings. All topics are dealt with through examples in the context of real business situations. (3 credits)

Research 299: Research Methods

This course aims to provide to students a comprehensive knowledge of good research practices. Students will also be exposed to ethical and legal issues related to research. Emphasis will be placed on the ability of the students to apply the appropriate research methodologies and analytical techniques and on acquiring academic writing and presentation skills. (3 credits)



DIVISION OF HUMANITIES & SOCIAL SCIENCES

Anthropology 349: Intercultural Communication in Theory and Practice (formerly Anthropology 249)

It is a module which provides students with basic knowledge on how communication practices are patterned by culture, leading students to acquire a reflexive approach to their own cultural identity and communication styles. It introduces students to a better understanding of the interaction between people coming from different cultures. In today's globalized world this seems to be central to our existence as responsible citizens. In using as background ACT's multicultural composition of the student body, and the host country's culture (Greek), we shall try to acquire knowledge and skills for more effective intercultural communication practices in different settings and situations (workplace, diplomacy, leisure, interpersonal relationships). (3 credits)

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)

Comm 327- Communication Research Methods

The aim of the course is to familiarize students with the challenges of conducting research in social sciences and the humanities. It is designed to provide students with research skills which are in high demand in a variety of contemporary professional settings, and necessary for their academic advancement to a graduate degree. Students will learn to collect, organize, analyze and evaluate data, as well as to consider the ethical implications of doing research. This course will discuss various research methods and in each of the methods studied, the aim is to focus on its practical applications and uses, examine in-depth notable cases of published research, and appraise their social utility. (3 credits)

English 101: Composition I

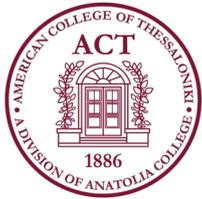
This course reviews the basic principles of paragraph writing and introduces the major rhetorical modes of narration, description and exposition through discussion of theory, examination of model essays, and writing practice. In addition, students are introduced to information literacy by spending seven 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 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 improvement specific to their own professional communication. Through the use of a variety of different teaching and learning 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)

English 259: Topics in Contemporary World Literature

The course will consider contemporary literary texts from around the world (written or translated into English) which respond to cultural, political and social issues of today. In addition to approaching contemporary literature as an index of distinct cultures but possibly also cultural interaction, it will examine the literary features of each book to define its contemporariness, both thematically but also stylistically. When applicable, the course will also explore the role of literary prizes and other marketing factors in helping a book travel beyond its place of origin and become a “contemporary classic”. As a critical reading and writing course, it will offer students the opportunity to compare cultures while familiarizing themselves with some of the world’s interesting and challenging literary texts. Exposing students to cultural and literary traditions around the world will help them realize what sets us apart and what brings us together as humans. (3 credits)

English 340: Comparative Literature

The course aims to engage students in a comparative study of literary representations of sexuality from antiquity to present times. Terms such as ‘sex’ and ‘sexuality’ are often used interchangeably, without considering their many different connotative meanings at different historical periods, or in different cultural contexts. The course is divided into three parts: a) philosophy and sexuality, b) class, gender, sin, and sexuality, and c) Freud, psychoanalysis and sexuality, which will bring us back to philosophy. Works in translation will help us reveal the nuanced role of language itself in terms of constructing sexuality. (3 credits)

English 350: Advanced Writing: Writing for Social Change

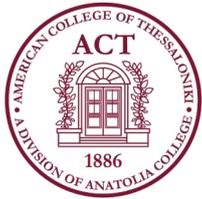
The aim of ‘Writing for Social Change’ is to allow students to explore the genres and forms of writing that have influenced social change, and to practice writing for social change in today’s complex, multi-faceted world. Practical themes include; writing for advocacy; how to write to influence opinion and provoke action (use of language and understanding of rhetoric,) print and broadcast op-ed reporting, the language of politics, protest and persuasion and the use of citizen journalism (including petitions, grass-roots manifestoes, letter writing campaigns, open letters to newspapers, etc.). Students will be expected to write creatively and persuasively about social change and think about issues such as: what role should writers play in the framing and mediation of issues, social norms and negotiating the relationship between the personal and the political? (3 credits)

English 395: Senior Thesis II

This is the second part of a course in which the students are required to write a 8,000-word thesis, or a 6,000 word thesis if accompanied by a strong multimedia component. It forms a fundamental component of the BA Hons in 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. The course offers an integrative, project-focused approach deemed particularly useful both to a wide variety of professional settings and to the advancement to graduate studies. (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 221: Global Modernities: World History Since 1900

This course examines global history from 1900's to the present, addressing key themes and trends in the political, cultural, social, and intellectual landscapes of the period. While emphasis will be on interpreting the century's historical trajectories, the course will also seek to historicize globalization, evaluate the concepts of globality and transnationalism, and study critical responses to globalization. (3 credits)

Humanities 246: Introduction to American Cultural Studies

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)

Music 120: Traditional and Contemporary Greek Music

This course will provide students with an introduction to the historically rich and varied traditions in Greek music. The principal focus will be on church music, folkloric song and dance, and contemporary variations of "lay" music. Discussion will also refer to the place of music in ancient Greek society. Knowledge of Greek is helpful but not required. (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)

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 201: International Relations

This course begins with an examination of the key notions and actors in the field of international relations, as observed principally from the twin perspectives of global interdependence and mutual vulnerability. It then focuses on various institutional, ethnic, geopolitical, strategic, and economic issues of current interest. At the same time the course has as an objective to provide an overview of the main classic and contemporary trends in international relations scholarship. (3 credits)

Politics 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)



Politics 232: International Organizations and Institutions

The aim of this course is to introduce students to the basic theories and concepts on international organization and to analyze the role of international organizations in the international legal order. The course begins with the historical development of international organizations, and then introduces the students to the various PS&IR and IL theories on the phenomenon of international institutional cooperation. The course then focuses on the IO's role in the making, implementation and enforcement of international law upon nation-states and individuals, their overall impact in the international order and the question of their accountability. (3 credits)

Politics 301: War and Human Security in the Modern World

In many respects war seems to be a major preoccupation of humankind. This course sets out to examine various perspectives on the causes, nature, and implications of war and genocide, as well as familiarizing students with the major issues and concepts associated with violent conflict. In addition students will become engaged with the dynamics of efforts to establish peace and resolve conflicts through an examination of applied theoretical frameworks and case study analyses. (3 credits)

Politics 321: US Policy in Southeast Europe

This purpose of this course is to provide a comprehensive overview of US diplomacy and involvement in the region of Southeast Europe from the end of the Cold War to the present. The course will consider the Cold War roots of contemporary Balkan policy, with a focus on the wedge policy in Yugoslavia, efforts to build bridges in Eastern Europe and to transform the realities of Soviet containment, the strategies of the Bush, Sr., Administration to deal with the end of the Cold War, the wars of the 1990s in the former Yugoslavia, and, finally, the unfinished business in the Balkans facing the current US administration. The course will also seek to distinguish between crisis management in the former Yugoslavia, and more programmatic economic and political assistance to all former communist regimes in Eastern Europe. (3 credits)

Politics 350-351: Senior Thesis

An intensive, two-semester research project guided by one or more ACT faculty.

Psychology 120: Developmental Psychology I

The study of human development is the study of progression and change. This course is designed to introduce students to the study of developmental psychology and provide an overview of the major theories and topics in developmental psychology. The emphasis is on the prenatal period and early childhood. However, later periods of development will be addressed in Developmental Psychology II. Theory and research will be presented in areas such as biological, motor, cognitive, emotional, and social domains from the prenatal period through early childhood. (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 202 - Personality Theories

This course will help students to deepen their knowledge regarding the formation of human personality and its impact on several areas of life. Also, the course intends to cover the main theoretical approaches, their strengths and limitations as well as their application to the explanation of psychopathology and problematic behavior. As nowadays, in the field of psychology, a lot of researchers and professionals suggest an eclectic approach, students need to be acquainted with the various theoretical schools and be able to apply basic theoretical information to real-life examples in practice. Focus will be also given to relevant issues, such as the genes and environment debate, gender differences and cultural perspectives so that students develop a holistic approach to the understanding of human personality. (3 credits)



Psychology 204: Social Psychology

The aim of this course is to develop student's knowledge and understanding of key areas in Social Psychology such as: social thinking (which includes the topics of the self-concept; self-serving bias; stereotypes and prejudice), social influence (which includes the topics of persuasion; health and well-being in today's societies) and social relations (looking at the topics of aggression, discrimination, liking and helping). Biological, cognitive, emotional and socio-cultural aspects will be discussed while presenting the above key areas. The students will also learn about the related field of Community Psychology and how its main principles and research findings apply to contemporary communities. Finally, research related issues such as ethics and methodologies in Social Psychological research will be covered. By presenting the main concepts, theories, research methods and key studies in Social Psychology, the course aims to help students evaluate the usefulness of the above in today's societies as well as recognize the limits of generalizing social psychological research to all gender/ethnic/cultural/age groups. (3 credits)

Psychology 206: Research Methods & Statistics II

This is a course in which students are given the opportunity to develop their critical understanding of the research process in Psychology and build a solid ability to evaluate methodological issues in specific Psychology research studies. The students advance their knowledge of qualitative data analysis (mainly typological analysis, thematic analysis and discourse analysis) and of quantitative data analysis by learning about inferential statistics and in particular estimation of parameters and hypothesis testing and significance. Finally, the students acquire the knowledge and skills to design and conduct a piece of small-scale original research. This module provides valuable preparation for final year thesis. (3 credits)

Psychology 250: Psychopharmacology

This is a course which covers the basic principles of psychopharmacology. The module investigates the questions 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 to effects on perception, emotion and behavior. (3 credits)

Psychology 303 - Educational Psychology

This course aims to provide students with an understanding of a range of issues where psychological concepts, theories and methods have been applied in an educational context. We will look both at research in educational psychology and the educational policies that this research informs. Issues of relevance along the different tiers of education will be considered. The nature of early education will be addressed as well, with policy and research concerning contemporary debates such as the significance of play; the concept of learning readiness and the age at which children should begin formal education. Pre-school interventions and a range of special needs/developmental disorders & interventions will also be explored. (3 credits)

Psychology 305: Counseling 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 351: Senior Thesis II

This is the second part of a course in which the students are required to write an 8,000-word thesis. It is a fundamental component of the Psychology curriculum in which the students display their ability of formulating a research question which they research and write a detailed analysis of in 8,000 words. (3 credits)



Psychology 400: Clinical Psychology II: Psychological Assessment

This course provides students with an opportunity to develop further their knowledge and skills in the areas of observation, measurement and psychometric assessment, including the use of formal psychological tests. Also, the aim is to explore the theory and application of psychological tests as measures of personality, intellectual function, attitudes etc. and learn how to use certain types of tests, their advantages and disadvantages, and test reliability and validity. Additionally, students will gain insight into the appropriate use of tests, tests construction, administration of tests and interpretation of test results. (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: Introduction to Computing

The course aims at making the student an effective computer user within the contemporary networked environment of both the office and the Internet. Students learn the usage of modern programs suitable for composition, calculation and presentation, as well as the facilities available for communicating and researching through the Internet. The fundamentals of how the computer and a network of computers work are discussed in order to provide a basic understanding of the modern computing environment. (3 credits)

Computer Science 106: Introduction to Programming II – Object oriented programming

The course provides a systematic coverage of Object Oriented Modelling and Applications. Topics include Object Models, Object Class Design, Inheritance and Polymorphism, Software Reuse with Classes, Application Modelling, Simulation with Object Classes, and Business Process Modelling 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. (3 credits)

Computer Science 107: Multimedia I

This course is an introduction to digital multimedia. All media components (digital pictures/graphics, text, animation, sound and digital video) are introduced and their parameters defined and studied. Software multimedia development tools necessary for the creation or capture of digital media are presented, and students acquire hands-on experience with a package for each media category. Hardware essential for the capture/creation of the media is also presented. Multimedia project design parameters are examined and applied to a student capstone project. (3 credits)

Computer Science 151: Quantitative Computing

This course aims at increasing students' quantitative skills through extensive usage of popular spreadsheet programs. Students will be exposed to numerous basic concepts of computing, including data types and formats, spreadsheet programming and data structures. A variety of problem solving tasks will be presented at an introductory level, including data analysis, simple system modeling and simulation. Applications will be drawn from several disciplines, including business. (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 230: Introductory Systems Programming

The course continues from CS105, Structured Programming, aiming to making students familiar with a variety of fundamental software engineering challenges which can be solved by developing the appropriate software algorithms. The course furthers algorithmic skills with increased emphasis on systems programming. More elaborate data structures are manipulated and the role of libraries accessing Operating System resources (Disk, I/O) is examined. In this manner the course serves as a bridge between the Programming Fundamentals and the Computing Systems program threads. The course employs a high-level language (C++) and investigates structured programming as follow-up to the introductory course in programming. More elaborate structures are learned and employed, in order to solve a wide range of tasks. Intricacies of the C/C++ languages are investigated and related to computer architecture (pointers, variable addresses, memory allocation). The course, in addition to furthering algorithmic thinking skills, also serves as the introductory course for the Computing Systems program thread, as the relationship of the high level language with the underlying computer system is investigated and applied to system programming tasks involving I/O with a variety of external devices (user interaction, storage, microcontrollers). (3 credits)

Computer Science 306: Advanced Web Development

This course builds upon the skills and knowledge about creating and publishing Web pages and sites taught in CS 206. It also introduces students to advanced web development areas, required for students interested in pursuing a career in web site design. This course aims mainly on client-side scripting using the programming language JavaScript. The objective will be to understand what scripting languages are and to be able to develop scripts. The course will also offer an introduction to jQuery library, Asynchronous JavaScript and XML (AJAX), basically showing the benefits of their use and applying it to certain programming tasks. In the last portion of the course, students will gain a practical knowledge about the currently most used web content management environments. By combining lectures with seminar discussions and extensive hands-on experiences the course will introduce the students both to the applied aspects of content management technologies but also to the theoretical issues involved. (3 credits)

Computer Science 312: Database Management Systems

This course offers a systematic coverage of modern Database Computing theory and technology. Topics include Relational Algebra, Data Modeling, Database Design, Concurrency and Locking, Client-Server Database Management Systems, Interface Design, trends in Database Systems, combination of Object Oriented Modeling, and Relational Databases. The course is based on a modern client design tool and requires Event-Driven Programming. (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 revolutionary 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 322: Network Operating Systems and Administration

This course aims to provide the student with the knowledge of how computer networks are designed, engineered and operated. This includes knowledge of the fundamental algorithms used in the management of both resources and traffic and how these algorithms may interact with application programs. Instruction includes, but is not limited to, network terminology and protocols, network standards, LANs, WANs, cabling, cabling tools, routers, router programming, star topology, and IP addressing. The student will study and design networks, using Ethernet, TCP/IP Addressing Protocol, and dynamic routing. Particular emphasis is given to the use of decision-making and problem-solving techniques in applying science, mathematics, communication, and social studies concepts to solve networking problems. (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 345: Applied Machine Learning and Deep Neural Networks

The course is designed for intermediate programmers that have a baseline knowledge of mathematics. It introduces the student to the vast variety of ML algorithms, with a focus on DNN models and provides the practical skills to apply them. Topics covered with regard to tasks of intelligence: Classification, regression, approximation, recommendation, generating predictions, making decisions, reducing dimensionality, identifying similarities, analyzing graphs, artificial imagination, generating art. Topics covered with regard to application: Domains of application, intelligent software, and object-oriented implementation of algorithms, computational frameworks, massive parallelization, big data storage and handling, information representation and evaluation metrics. (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)

Mathematics 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)

Mathematics 101: Elements of Finite Mathematics

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 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)



Mathematics 120: Calculus I

This course provides a solid foundation in Calculus concepts, tools and techniques for the student entering Science and Engineering fields. The course covers definition, calculation, and major uses of the derivative, as well as an introduction to integration. Topics include limits; the derivative as a limit; rules for differentiation; and formulas for the derivatives of algebraic, trigonometric, and exponential/logarithmic functions. Also discusses applications of derivatives to motion, density, optimization, linear approximations, and related rates. Topics on integration include the definition of the integral as a limit of sums, anti-differentiation, the fundamental theorem of calculus, and integration by the U-substitution and Integration by parts technique. The course emphasizes conceptualization, modeling, and skills. There is a concentration on multiple ways of viewing functions, on a variety of problems where more than one approach is possible, and on student activity and discussion. (3 credits)

Mathematics 220: Discrete Mathematics for Computer Science

Discrete mathematics can be defined as the study of structures consisting of a sequence of individual, separated steps. As such, they contrast with calculus, the latter describing processes which vary continuously or smoothly. If one can claim that the ideas of calculus were fundamental to the industrial revolution, then one can safely assume that the backbone of the science and technology of the computer age is discrete mathematics. The purpose of this course is for the students to understand and use the aforementioned discrete backbones of computer science. In particular, this class is meant to introduce logic, proofs, sets, relations, functions, counting, and probability, with an emphasis on applications in computer science. Further, this course will cover fundamental mathematical foundations required for conceiving, proving, and analyzing algorithms. (3 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).

Physics 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, introduction and the basic properties of electromagnetic waves. In this course you will learn how to analyze mechanical systems using Newton's laws. 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 of 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 fields fluxes which include EMF' (Faraday's Law), work with the inductance of a coil. (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 winds in protected waters. (3 credits)



Statistics 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)