



## AMERICAN COLLEGE OF THESSALONIKI – SPRING I 2023 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 2023 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)*

#### **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)*

#### **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 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 210: Human Resource Management for Growth**

*The course provides an overview of the basic concepts and practices of human resource management of a modern entrepreneurial organization. Its emphasis is on HRM's strategic perspective and well-being of the people for the success of new ventures. It also focuses on the global realities of HRM and the use of modern technologies within an ethical framework. Topics covered include: basic concepts, strategic HRM, legal aspects of HRM, Job analysis & Job Design, human resource planning, employee recruitment, selection, motivation and orientation, performance evaluation and compensation, Training and development, labor relations, safety, health and wellness, social and ethical issues. (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 302: Revenue Management**

*With a fixed capacity, a highly disposable product and high fixed costs, hotels are a natural candidate for the application of revenue management. The purpose of this course is to provide a core understanding of the fundamentals of revenue management, which ties into the larger picture of revenue strategy. The course is structured to provide an insightful look into Revenue Management. In today's hotel sector an increasingly complex network of traditional and web based channels have to be managed to insure hotel success. Key questions include: how should you distribute over the web? What should you include on your brand.com website so people book through it? How can you maximize the potential of online travel agents (OTAs)? With the distribution environment both highly complex and constantly evolving, this course will give you comprehensive foundation of current industry practices to help jumpstart your career in this fascinating domain. (3 credits)*

### **Management 305: HR in Hotel and Tourism**

*Hospitality is a concept deeply rooted into Greek mentality. Intuitive hospitality is offered by all tourism professionals and the country is renowned for this quality. Nevertheless, contemporary developments and cultural trends make it necessary for professionals to be educated according to today's needs. This course covers a wide range of topics that include advance hospitality management theory, impact of socio-economics and technology on hospitality, the future trends, laws relating to business ownership, current practices, legislation and ethics in hospitality practices, operations of revenue, logistics in accommodation for guests, guest handling, and various segments such room, concierge, food and beverage, pools, casinos, beach-bars and restaurants. (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 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 course work will be visits to local museums and galleries to examine firsthand artworks illustrating the different principles studied. (3 credits)*



### **Art History 220: Ancient Greek Art and Architecture**

*This course surveys Ancient Greek art and architecture from the Early Iron Age through the Hellenistic period. Following an introduction to the nature of art, its various uses, and approaches to its interpretation, the course will provide a brief historical background for the major periods in Greek art. Each period will then be examined in detail, with particular attention to defining stylistic features, and to examining representative works in each of the genres (sculpture, painting, architecture, minor arts). (3 credits)*

### **Communication 215: Foundations of Contemporary Media**

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

### **Communication 270: Digital Content and Storytelling**

*This course explores the world of online content and storytelling through a variety of digital and social media. Students gain insight into the uses and strengths of each medium –from Facebook and TikTok to blogs and podcasts–, as they learn to convey their messages through appropriate channels. Using selected case studies and best practices and via hands-on workshops, they will work together to identify common mistakes made in the digital world today, while realizing the endless possibilities it offers in order for them to reach their audience in the most impactful way. Applying the rules of storytelling, students will familiarize themselves with developing content for the various platforms and realizing the potential each piece of content holds. (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 English 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 203: Advanced College English Skills**

*This course aims to enhance academic skills in listening, speaking, reading and writing as well as develop significant critical thinking and research skills essential in an academic community and beyond. Texts on contemporary issues from various disciplines including newspaper articles, autobiographies, essays and peer reviewed journal articles will be examined. Close reading of texts will be the basis for discussions, debates, exercises and written assignments. Podcasts, blogs and short videos will also be used to practice Academic English skills. Themes and skill areas are selected to complement and enrich the learning experience of students of all fields. (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: Postcolonial Literature**

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

### **English 268: Women and Literature**

*This course examines the evolution of women's literature from the 19th to the 20th century in an attempt to assess the implications of gender in the production and consumption of literature through a study of selected texts by Anglophone women writers. Coventry Patmore's "The Angel in the House" (the only text studied written by a man) serves as the background against which we will study a variety of texts written by women writers that respond to and deconstruct this female portrait, gradually "killing the Angel" and working to create new fictional portraits and a new discourse for women and women's literature. The concurrent exploration of sociopolitical and economic issues makes the course a contextualized study of sexual politics, and therefore of interest to students outside the English major as well. (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).*

### **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 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)*

### **History 331: Topics in Twentieth-Century Greek History**

*The purpose of this course is to explore in detail some of the main themes in modern Greek history. The course will investigate such topics as immigration and refugees, war and its consequences, the right and the left in Greek politics, the city/country divide and the process of urbanization, and the Greek family and gender identity. The course will also examine modern poetry and literature, and traditional and modern forms of music. (3 credits)*

### **Humanities 120: Understanding Greek life and culture**

*The course provides an understanding of contemporary Greek life and what it means to be Greek. It does so by examining the practices and creations of Greek culture, as well as by identifying and understanding the main figures of Greek life and the political scene through time. In addition, it develops students' intercultural and communicative competency so that they can interact both locally in Greece and in the global community. Indicative content areas: Modern Greek language (acquisition of effective Modern Greek communication skills for daily use), Greek culture (language, art, cinema, music and customs), the Modern Greek state structure (background, historical development, public administration, and political parties), figures and Institutions, Greece as pluralistic society (the Orthodox church, family, community and values, migration, minorities), national identity (nation-building, ethnicity, and Greeks within Europe, the Balkans and the world) (3 credits)*

### **Humanities 210: Religions of the World**

*This course will expose students to a comparative study of diverse religious traditions, exploring their worldviews through their literatures, while focusing also on origins, cultural contexts, histories, beliefs, and practices. Through reading, discussion, and visual appreciation of artistic renditions of religious worldviews, students will gain valuable understanding of traditions other than their own, contributing to their broadened and deepened awareness of the world. The course takes place in Thessaloniki, a city with a long history of multi-faith tradition; thus, some of the local highlights include (among others) 'learning in ACTion' at the places where Apostle Paul visited and taught and the Jewish Synagogue. This course operates within a multicultural setting and focuses on students' personal experience bringing it into the classroom discussions. (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)*



### **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 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 207: The Modern Greek Nation-State**

*This course analyzes contemporary Greek society by exploring some of its institutions and structures as well as its sociopolitical practices. A thematic organization of the course allows for particular idiosyncrasies of the Greek state to be investigated in depth. Topics for examination are: The Modern Greek state structure, a civil society indicative of clientelism and populism, public administration and the role of political parties, the Greek Orthodox Church and religion, the Greek economy and the European Union, and the role of geopolitics. (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 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 pre-natal 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 122: Developmental Psychology (not available to Regular ACT students)**

*This module will focus on research and applications in the field of human development. Human development is the study of how people change and remain the same across the lifespan. The aim is to provide a review of the progression through the initial developmental stages (prenatal development and early years) and to further expand the students' knowledge of understanding on human development from school years through late adulthood. Areas such as biological, motor, cognitive, emotional, and social domains will be covered and these processes will be described within a theoretical and empirical framework. Students are 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 204: Social Psychology**

*This course aims to help students understand interaction – how we are influenced to think, act, and feel in order to gain greater awareness of how the social animal man is driven. Topics include group processes and influences, persuasion and its techniques, how we conform, and tactics of conformity. Concepts presented will be exemplified through evidence from everyday life. Communication and non-verbal communication, their significance, and techniques employed for both are considered. Students are given the opportunity to understand concepts presented through experimentation and are also required to undertake questionnaire surveys. Research conducted in both the United States and Europe is presented. (3 credits)*

### **Psychology 206: Research methods and 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 310: Organizational Psychology**

*Through this course the students will understand in depth the influence and interaction between organisations and the groups and the individuals who lead and work within them and will learn to analyze how these processes shape outcomes related to the use of human capital and to organizational effectiveness. The students will also learn to critically reflect on the roles, behaviors, interactions and outcomes they have had or will have themselves while participating in organizations or institutions. This course will start by presenting the history of organizational psychology and the topics of study and practice for organizational psychologists and will then discuss different structures and cultures of organizations. It will continue by covering various processes unfolding between organizations, groups and individuals (such as leadership, motivation for work, resistance to change, persuasion, team-working, problem solving, conflict/collaboration) and also examine how these processes shape various outcomes related to the performance and wellbeing of groups and individuals and the operation and growth of institutions. Research designs and methodologies in organizational psychology will also be covered. (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 functioning, 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)*

### **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)*

## **DIVISION OF TECHNOLOGY & SCIENCE**

### **Biology 113: General Biology 2**

*Upon Completion of this course students should be able to: Describe the theory of evolution, the mechanisms of evolution especially by means of natural selection, the evolution of populations and species, and the evidence in support of evolution; Describe the history of life on Earth and research into the origin of life as well as the major periods of geologic time, the fossil record and the role of changing environmental conditions and mass extinctions in the evolution of life; Recognize a phylogenetic tree and the principles involved in grouping organisms on an evolutionary tree; Distinguish between organisms in the 3 domains of life and provide identifying characteristics of each; Identify groups of protists, the main clades of fungi, major groups and evolution of land plants and key characteristics and evolution of both invertebrate and vertebrate animals; Describe the societal implications of biopharmaceuticals, ocean acidification, climate change, habitat destruction and loss of biodiversity on human health. (4 credits)*



### **Biology 299: Inquiries in Biological Sciences**

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

### **Chemistry 117: General Chemistry for the Biological Sciences**

*This course is designed to introduce biology students to the fundamental principles of chemistry. Topics to be covered include atomic structure, chemical equations, the periodic table, chemical bonding and intermolecular interactions, thermochemistry, reaction spontaneity, reaction rates, chemical equilibria, acid base chemistry and reactions in aqueous systems. Emphasis will be given to applications of chemical principles in biological systems. Students will develop an understanding of: Atomic structure and chemical properties of elements; Chemical reactions and reaction stoichiometry; Nature of chemical bonding and molecular shape; Significance of intermolecular forces; Thermodynamics of chemical reactions; Chemical kinetics, chemical equilibria, reaction rates, Acid base chemistry, and Buffers, acid base equilibria. (4 credits)*

### **Chemistry 215: Organic Chemistry I**

*This course is designed to introduce students to the fundamental principles of chemistry of carbon-containing compounds, including three-dimensional structures, chemical properties and methods of structural identification, reactions, and syntheses. Topics to be covered include, stereochemistry, and functional group characteristics of alkanes, alkenes, alkynes, alkyl halides, alcohols, and ethers, with an emphasis on reaction mechanisms and multi-step syntheses. (4 credits)*

### **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 108: Digital Tools for the Humanities**

*This module is an introduction to multimedia tools that are essential for the effective and visually appealing communication through a variety of digital applications. Media components, such as digital images, graphics, text elements and digital video are introduced and their parameters defined and studied. Software multimedia development tools, necessary for the creation of digital media, are presented and students acquire hands-on experience with a package for each media category. Emphasis is given on the proper workflow that should be followed in order for the desired result to be achieved in a time-efficient, productive and professional manner that meets both the standards and the trends of the industry. Multimedia project design parameters are examined and applied to a student capstone project. The main software used in this module will be Adobe Photoshop/ photopea.com (online editor), Adobe Bridge and Adobe Premier Rush. (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 219: Video Game Design**

*This course introduces the critical study of computer video games and the professional practice of game design. Through readings, discussions, research, and practical "hands-on" projects, students will better understand the current market for games and simulations and develop the fundamental skills necessary to enter the international computer games industry. Although the commercial video game pipeline will be discussed, the actual production framework for the class will mirror a "Indie" game team "prototype game level" development. Students will be expected to fill multiple roles in the production process, and gain hands-on experience in the collaborative processes of game design, project management, scripting, content creation pipeline, in game animation, and play-testing. (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 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, OSI models, 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 330: Introduction to Mobile Robotics**

*The primary difference between robots and other types of computing devices is their ability to physically interact with their environment, rather than to simply gather, process, store and communicate data. This is particularly apparent in the case of autonomous and semi-autonomous mobile robots: they face the challenge of acquiring data from their surroundings, selecting their own navigation waypoints and dynamically altering their course of action to account for obstacles, power supply restrictions and unexpected events. In this course theoretical instruction is combined with experiential learning and challenge driven software development.*

*Students participating in this course are challenged individually and in teams to build the hardware chassis and software control algorithms for mobile robots. The course assumes a basic background in structured programming and proceeds with an introduction to both visual and text source code robotic programming (C, RobotC); basic electronics circuit design and troubleshooting; microcontroller programming; sensor data acquisition algorithms; actuator control; robotic navigation and obstacle avoidance; basic sensor data fusion; and concludes with a final robotic design challenge which integrates all aforementioned knowledge and skills. This course builds on structured programming skills developed in CS105: Introduction to Programming I - Structured Programming. (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 345: Applied Machine Learning and Deep Neural Networks**

*The course explores the vast field of Machine Learning (ML) at the senior level, focusing on its applications and related software implementations. Covers a variety of related ML models but specializes in the subfield of Deep Learning that encompasses the most successful algorithms that are used to train Deep Neural Networks (DNN). The course mostly emphasizes on the practical application of Machine Learning on data that are available for the needs of a specific intelligent task. These tasks belong to diverse domains like Image Recognition, Natural Language Understanding, and Recommender Systems, and during the course students will be handed the appropriate source code examples which implement ML models for the tasks. Understanding the basic theory through examples, allows the formulation of a solution for the given task and consequently, the selection of an ML model, which can be a DNN, that will become a software implementation using popular libraries. The correct selection and usage of the related data samples are part of this research and development process. The experimental setup includes a quantitative evaluation of the solution performance using the proper metrics. The research methodology concludes by identifying problems of ML through evaluation, designing improvements for the next set of experiments, or stating open questions for future work. (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 121: Calculus II for Science and Engineering**

*The purpose of this course is to give a solid foundation in Calculus concepts, tools and techniques for the student entering Science and Engineering fields. This course is a continuation to Calculus I for Science and Engineering where the student mastered: Limits, Differentiation, Anti-Differentiation and Basic Integration skills of 2D functions as well as basic introduction to parameterized curves and motion. This course will cover: Techniques and Applications of Integration. Topics will include: Integration by Parts; Integration by Partial Fractions; Trigonometric Integration; Numerical Integration; Improper Integrals; and Areas, Volumes, Mass/Moments and Work as Integrals; Infinite Series and Introduction to Vectors. Other topics addressed are: Convergence of Sequences and Series of numbers, Power Series representations and Approximations of Functions, 3D Coordinates, Parameterizations, Vectors, Dot and Cross Products, Equations of Lines and Planes. (3 credits)*

### **Mathematics 215: Differential Equations and Linear Algebra**

*The idea of constructing mathematical models to address real-life applications is at the core of the interplay between mathematics and the sciences. In the context of natural sciences, it is often the case that these models involve univariate functions and their derivatives. The course will present an overview of the methods to set-up and solve such equations, called ordinary differential equations (ODE). In parallel, and motivated by systems of linear differential equations, the course will cover the core concepts of Linear Algebra. Following the completion of the course students are expected to have mastered the following topics: First Order Differential Equations; Higher Order Linear Differential Equations; Laplace Transforms; Numerical Methods; Boundary Value and Initial Value Problems; Applications to the Sciences; Systems of Equations and Matrices; Linear Transformations and Eigenvalues.(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, separate 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 120: University Physics I, for Science & Engineering technology & science**

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

### **Statistics 210: Introductory Statistics with R**

*This module is an application-oriented introduction to modern descriptive and inferential statistics using R statistical software. Students are first exposed to the basics of the R software including writing scripts and data manipulation. Then, a variety of statistical topics are discussed: study design, descriptive statistics, data visualisation, random variables, probability and sampling distributions, point and interval estimates, hypothesis tests, and linear regression. Various real-world datasets are used for the application of the techniques learnt. No prerequisites, but a willingness to write code is necessary*