



IAU MADRID

COURSE OFFERINGS – SUMMER 2023

INTERNSHIPS & CONSULTING PROJECTS		
INT/SPA 341	<p>GLOBAL INTERNSHIPS</p> <p>This experience is designed to immerse students in a multicultural professional space. A special effort is placed on helping students develop the skills required to enter the professional world and navigate cross-cultural entrepreneurial environments. This hands-on experience is complemented by an academic component, which guides students through the experience and helps them strategically reflect on challenges, accomplishments, and personal and professional development. Students are intentionally placed based on interests and skillsets with the aim to build their professional network through industry-specific training. <i>Students will need at least an intermediate level of Spanish to participate in an internship; it is recommended that students take 12 credits total, including the three-credit internship.</i></p>	3 Credits
ART / ART HISTORY		
ART/ARH 334	<p>GREAT MASTERS OF THE PRADO</p> <p>The aim of this course is to make students familiar with the most relevant and internationally outstanding Spanish and European artists within the Prado Museum Permanent Collections. The course will help students to fully understand and assimilate art history fundamental concepts and movements such as Renaissance, Baroque, and Neoclassicism, with a specific concentration on Spanish masters such as El Greco, Velázquez, and Goya. Simultaneously, it will help students confront Spain's and Europe most controversial history: from the dark Medieval Ages to the beginning of the 19th Century.</p>	3 Credits
BUSINESS		
BUS 305	<p>GLOBAL MARKETING</p> <p>Exploration of basic knowledge of global marketing focusing on the impact of environment on the strategies used by firms and understanding of consumer behavior management as it relates to the development and implementation of global marketing strategies.</p>	3 Credits
BUS 303	<p>INTERCULTURAL MANAGEMENT</p> <p>This course is designed to introduce students to concepts and fundamentals of international management. The course will consider aspects of management within an international and culturally complex environment, while considering the business influences within the global workplace. Students with or without prior international management knowledge will benefit from the course.</p>	3 Credits
MGT 311	<p>OPERATIONS MANAGEMENT</p> <p>This course is an introduction to the concepts, principles, problems, and practices of operations management. Operations Management is one of the key functional areas in any organization or company that deals with the production of goods and services. This course is concerned with the tasks, issues and decisions of those operations managers who have made the services and products on which we all depend. Emphasis is on managerial processes for effective operations in both goods-producing and service-rendering organization. Topics include operations strategy, process design,</p>	3 Credits

Course offerings and times are subject to change



	capacity planning, facilities location and design, forecasting, production scheduling, inventory control, quality assurance, and project management. The topics are integrated using a systems model of the operations of an organization. <i>Pre-requisites: Introductory Statistics, Introductory Information Systems & Introductory Calculus</i>	
MKT 311	PRINCIPLES OF MARKETING The objective of this course is to introduce students to the important issues undertaken by marketers. Students will learn the language of marketing and the basic elements of a marketing analysis. Students will be able to identify, define, and examine the process of developing the components of the marketing mix, and explain how marketing managers use these components to gain competitive advantage within a socially responsible and ethical environment. <i>Pre-requisites: Introductory Microeconomics & Introduction to Calculus</i>	3 Credits
COMMUNICATIONS AND MEDIA STUDIES		
COM/IR 316	MEDIA AND CONFLICT This course examines the role media play in the progression and public perceptions of conflict. Relevant topics will include media and military intervention, portrayals of protest movements, and news and entertainment coverage of crime, rumors, domestic politics, violence, and ethnicity.	3 Credits
COM 318	INTERCULTURAL COMMUNICATION The main differences the course focuses on are nationality, race, class, gender and religion. Students will study and observe how different identities under those categories affect people's perceptions of themselves as individuals, themselves within their groups, themselves within other groups, and how those perceptions affect the way they communicate and interpret messages. In response to the changes in the way we communicate due to communication, the course will also focus on the impact of technology on intercultural communication as well as the ways that different cultures utilize the various forms of social media platforms.	3 Credits
COM 374	CULTURE, GLOBALIZATION, AND MEDIA The main objectives of this course are to study the structure and characteristics of the international news media system, understand mass media's role and influence in creating the world's public opinion, and to review the evolution of mass media from the invention of the printing press to the arrival of internet. Students will also study the principal international news media systems as well as the future of mass media in our globalized society.	3 Credits
COMPUTER SCIENCE / ENGINEERING / MATHEMATICS		
EEG 301	CIRCUIT ANALYSIS II Sinusoidal steady-state analysis, sinusoidal steady-state power calculation, balanced 3-phase systems. Mutual inductance and transformers, series and parallel resonance. Applications of Laplace and Fourier transforms to circuit analysis.	3 credits
MEG 210	STATICS Equilibrium of a particle, equivalent and resultant force systems, equilibrium, geometric properties of areas and solids, trusses, frames and machines, shear force and bending moments, friction.	3 credits
MEG 230	INTRODUCTION TO THERMODYNAMICS First and second laws of thermodynamics and examples of engineering applications of macroscopic thermodynamics; equations of state; reversible and irreversible processes; power cycles; and refrigeration and heat pump cycles.	3 credits

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ITS 250	MICROCOMPUTER ARCHITECTURE AND ASSEMBLY PROGRAMMING This course provides an overview of computer systems, including assembly language programming, microprogramming, memory, registers, busses, and computer control.	4 credits
ITS 270	ALGORITHMS AND ABSTRACT DATA STRUCTURES Algorithm analysis using O-notation, sorting, heaps, balanced binary search trees, and has tables.	3 credits
ITS 350	DATABASE SYSTEMS Basic concepts in database systems, including data manipulation language and data definition language. The relational model and its implementation will be covered in depth together with an overview of SQL.	3 credits
ITS 370	ARTIFICIAL INTELLIGENCE This course is designed to provide an introduction to the specialized area of Artificial Intelligence. It is therefore suitable for students interested in pursuing studies or industrial work in intelligent or self-adapting/learning systems, or those wishing to gain a broad understanding of the state of the art and programming approaches used in this rapidly growing area.	3 credits
ITS 371	OPERATING SYSTEMS This course provides advanced Computer Science students with a foundational grounding in the development, design, and use of Operating Systems (OS) in general. While OS have significantly evolved over the past few decades, the foundational components are still an important part of understanding and modeling OS operations. In addition to understanding OS software specifically, students are engaged with non-trivial and large-scale programming challenges, which include creating a software product that simulates a working OS.	3 credits
ITS 401	COMPUTER SECURITY This course provides an overview of network security and related topics. General threat classifications are discussed as they relate to the CIA triad: eavesdropping (confidentiality), man-in-the-middle (integrity), and denial-of-service (availability). We will discuss vulnerabilities as they manifest in standard TCP/IP network protocols and real-world attack incidents and implementations are used to tie concept to reality. Defensive technologies and techniques, including authentication/authorization, access control, segmentation, log/traffic monitoring, reputation-based security, and secure protocol (SSH, TLS, DNSSEC) usage are discussed and demonstrated.	3 credits
MEG 320	DYNAMICS Particle kinematics and kinetics of a particle in rectangular, cylindrical and normal-tangential coordinates: projectile motion; relative motion using translating axes; work; conservative forces; conservation of energy; linear and angular impulse and momentum; conservation of momentum. Planar kinematics and kinetics of a rigid body: force, work-energy, and impulse-momentum.	3 credits
MEG 301	MECHANICS OF MATERIALS The objective of this course are to learn the principles of mechanics applied to different materials and to develop problem solving skills through application of these principles to basic engineering problems. Specific topics covered in this class include: behavior of axially loaded members; torsion of circular shafts; stresses and deflections in beams; connectors in built-up beams; stress transformation under rotation of axes; principal stresses; triaxial stress and maximum shear stress; pressure vessels; and buckling behavior of columns.	3 credits
MTH 149	CALCULUS & ANALYTIC GEOMETRY I Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series.	4 credits

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MTH 150	CALCULUS & ANALYTIC GEOMETRY II Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series.	4 credits
MTH 151	CALCULUS & ANALYTIC GEOMETRY III Methods of integration; applies calculus, elements of analytic geometry, improper integrals, sequences, and series.	4 credits
MTH 270	ORDINARY DIFFERENTIAL EQUATIONS Ordinary differential equations (ODE's) and systems of ODE's. Existence, uniqueness and stability of solutions; first and second order ODE's; applications; the Laplace transform; numerical methods; systems of ODE's; solutions of linear equations with constant coefficients; qualitative results.	3 credits
MTH 271	DISCRETE STRUCTURES A study of propositional logic, set theory, functions, algorithms, divisibility, introductory number theory, elementary proof techniques, counting techniques, recursive definitions, mathematical induction, and graph theory.	3 credits
MTH 350	EXPERIMENTAL STATISTICS This course introduces key concepts in probability and statistics with engineering applications. Emphasis is placed on modeling variation in observations, characterizing its distribution, and making inferences with regards to quality assurance and control. Fitting multivariate models, experimental design and hypothesis testing are all critical skills developed in the course.	3 credits
MTH 260	LINEAR ALGEBRA A systematic study of the theory of matrices, vector spaces, and linear transformations. Topics include systems of linear equations, determinants, linear independence, bases, dimension, rank, eigenvalues, and eigenvectors. Additional topics may include inner products, orthonormal bases, projections, and quadratic forms. Applications may include geometry, adjacency matrices, calculus, difference equations, least squares, and Markov chains.	3 credits
DANCE		
DAN 200	LATIN DANCE Students will have the opportunity to learn a variety of Latin-based dances as well as the historical context of each. Latin dances will include Tango, Cha Cha, Salsa, Merengue, Bachata, as well as others.	3 credits
HISTORY		
HIS 326	SPANISH CIVILIZATION AND CULTURE This course starts with a view of the Spanish history, and then examines the different cultures within Spain: Castilian, Catalan, Basque and Galician; focusing mainly on language, nationality, and political implications. The rest of the course will travel throughout the various aspects of the Spanish Civilization, understanding civilization as lifestyle and society (family, immigration, youth, economic crisis, politics, etc.), and also the various artistic ways of expression (painting, architecture, literature, music and cinema). By using concepts from these various subjects, students will study how Spain changed from being a polarized country to an allegedly reference in the West.	3 credits
SPA/HIS 327 <i>In Spanish</i>	SPANISH CIVILIZATION AND CULTURE This course starts with a view of the Spanish history, and then examines the different cultures within Spain: Castilian, Catalan, Basque and Galician; focusing mainly on language, nationality, and political implications. The rest of the course will travel throughout the various aspects of the Spanish Civilization, understanding civilization as	3 credits

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	lifestyle and society (family, immigration, youth, economic crisis, politics, etc.), and also the various artistic ways of expression (painting, architecture, literature, music and cinema). By using concepts from these various subjects, students will study how Spain changed from being a polarized country to an allegedly reference in the West.	
HIS/POL 336	POLITICAL HISTORY OF CONTEMPORARY SPAIN The object of this course is to analyze the principal institutions, actors and issues in contemporary Spanish government and politics. The course has four broad themes: first, the collapse of the Francoist dictatorship and its replacement by a constitutional parliamentary democracy; second, the key actors and institutions in Spanish government under democracy, third, the evolution of politics and policies in Spain over the last three decades, and finally, the nature of the country's current economic and political crisis.	3 credits
LANGUAGE & CULTURE		
SPA 101	BEGINNING SPANISH I Intensive practical introduction to Spanish for those with little or no previous study.	3 Credits
SPA 102	BEGINNING SPANISH II Intensive practical study of more advanced components of the Spanish language for those who have completed the equivalent of one semester of college-level Spanish.	3 Credits
SPA 101 & 102	ACCELERATED BEGINNER SPANISH This intensive immersion language course taught abroad is designed for students who have studied little or no Spanish previously. The course moves quickly and requires a commitment to work on your Spanish (class, practice, and study time) six-eight hours a day without exception. This course provides insight into the interconnectedness of the fundamentals of language and its application to communication. In addition, in this course the linguistic and cultural tools acquired are reinforced and assimilated as well as used as a point of reference for further linguistic and cultural expansion. To varying degree attention is devoted to all four linguistic skills (listening, speaking, reading and writing).	6 credits
SPA 201	INTERMEDIATE SPANISH I Continued development of competence in reading, writing, speaking, and understanding spoken Spanish. Intended for students who have completed the equivalent of one year of college-level Spanish.	3 Credits
SPA 202	INTERMEDIATE SPANISH II Continued development of competence in more advanced elements of reading, writing, speaking, and understanding spoken Spanish. Intended for students who have completed the equivalent of three semesters of college-level Spanish.	3 Credits
SPA 300	CONVERSATION A course designed for students who wish to enhance their command of spoken Spanish, including building vocabulary and expanding the use of more advanced grammatical structures. This course does not accept students who already have high intermediate or advanced oral proficiency in the language. A brief interview with the instructor is required for admission.	3 Credits
SPA 307	INTRODUCTION TO HISPANIC LINGUISTICS This course serves as an introduction to the formal linguistic analysis of the Spanish language. It surveys key areas of the field of Spanish Linguistics, including Phonology and Phonetics, Morphology, and Syntax. Additional topics (Historical Linguistics, Semantics, Psycholinguistics, Dialectology, Bilingualism, etc.) in the context of the Spanish language may also be covered.	3 Credits

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SPA 312	SPANISH FOR THE WORKPLACE The course is specifically designed to improve students' oral and written business communication skills through language immersion and study of the local cultural and work environment. In addition to academic study, the course will provide an overview of Spanish social culture as it applies to the professional workplace, focusing on specific fields of expertise that are of interest to the students.	3 Credits
SPA/HIS 327 <i>In Spanish</i>	SPANISH CIVILIZATION AND CULTURE This course starts with a view of the Spanish history, and then examines the different cultures within Spain: Castilian, Catalan, Basque and Galician; focusing mainly on language, nationality, and political implications. The rest of the course will travel throughout the various aspects of the Spanish Civilization, understanding civilization as lifestyle and society (family, immigration, youth, economic crisis, politics...), and also the various artistic ways of expression (painting, architecture, literature, music and cinema). By using concepts from these various subjects, students will study how Spain changed from being a polarized country to an allegedly reference in the West.	3 Credits
SPA/SOC 359 <i>In Spanish</i>	CONTEMPORARY SPANISH HISTORY THROUGH FILM Spanish cinema provides an excellent route for understanding social and political change throughout the 20th and 21st Century. As the most important artistic medium of modernity, cinema allows one to construct and deconstruct many myths and identities. This course will analyze the most relevant Spanish film productions primarily as socio-historical documents (content). Topics in Spain may include the Republic and Civil War (Fernán Gómez and Buñuel), the '60s comic criticism of dictatorship (García Berlanga), and censorship (Lazaga), the transition to democracy (García and Almodóvar), and the new '90s cinema (Amenábar, de la Iglesia, Medem, Coixet, and Bollaín).	3 Credits
LITERATURE		
LIT/SOC 349	BORDERS, MEMORY, IDENTITIES: CULTURAL REPRESENTATIONS OF CONTEMPORARY MIGRATIONS IN EUROPE This course offers an introduction to the different cultural representations of contemporary migrations into and within Europe. The emphasis will be given to the study of the realities and their cultural representations of both emigration and immigration and the sociocultural and cognitive effects migration may have on migrants as well as on European citizens and national institutions. Forced migration towards Europe has had a deep cognitive and emotional impact on the migrant subjects, shaping their individual and collective identity. It has even disrupted not only migrants' own conscience, but also the way that national governments in Europe and worldwide have perceived what now is referred to in the media as the refugee crisis. The main influx on non-European migrants has been mainly through: a) Greece and the Balkans countries, b) Libya and Italy, and c) the Spain's African territories (Ceuta and Melilla) into Andalusia. The extent that it is relevant, the textual and cultural representations of both emigration and immigration in Europe will be studied in relation to their historical and social backgrounds as well as from an interdisciplinary and an international perspective.	3 Credits
PHILOSOPHY		
PHI/POL 312	ETHICS IN SOCIETY From the perspective of selected topical issues of politics and society, students will be encouraged to develop an enhanced critical awareness of how major political and social thinkers in the past have treated the relationship between individual and society. The course will thus include the study of prominent texts in moral and political philosophy	3 Credits

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	(from Plato and Aristotle to authors of the twentieth century), but it will also aim directly to improve students' analytical skills for understanding conflicts that commonly arise in the practice of citizenship, while also helping them to develop a finer appreciation the significance of social change and of cultural diversity, in an emergent global society.	
POLITICAL SCIENCE / INTERNATIONAL RELATIONS		
PHI/POL 312	ETHICS IN SOCIETY From the perspective of selected topical issues of politics and society, students will be encouraged to develop an enhanced critical awareness of how major political and social thinkers in the past have treated the relationship between individual and society. The course will thus include the study of prominent texts in moral and political philosophy (from Plato and Aristotle to authors of the twentieth century), but it will also aim directly to improve students' analytical skills for understanding conflicts that commonly arise in the practice of citizenship, while also helping them to develop a finer appreciation the significance of social change and of cultural diversity, in an emergent global society.	3 Credits
POL/HIS 336	POLITICAL HISTORY OF CONTEMPORARY SPAIN The object of this course is to analyze the principal institutions, actors and issues in contemporary Spanish government and politics. The course has four broad themes: first, the collapse of the Francoist dictatorship and its replacement by a constitutional parliamentary democracy; second, the key actors and institutions in Spanish government under democracy, third, the evolution of politics and policies in Spain over the last three decades, and finally, the nature of the country's current economic and political crisis.	3 Credits
PSYCHOLOGY		
PSY 328	POSITIVE PSYCHOLOGY AND HAPPINESS This course reviews the history and key concepts of positive psychology and the contributions this new field has made to several traditional research areas in psychology. Areas of controversy (e.g., what is happiness, how should we measure it, what determines it, can and should we deliberately increase it) will be critically examined, with consideration given to conflicting viewpoints and their respective empirical support. Throughout the course we will also engage in experiential learning and practical exercises to increase well-being, which will inform our theoretical and empirical understanding of important questions in positive psychology.	3 credits
PSY 332	CROSS-CULTURAL PSYCHOLOGY This course offers an understanding of how culture influences our behavior from a cultural psychology perspective. Through the lenses of cultural psychology, we consider how embedded culture is in our lives, how vital a cultural perspective is in understanding the lives of others and the importance of a cultural lens in academic psychology. It is a unique opportunity for you to combine academic learning with personal development: understand the influence of your culture on your behavior, your intercultural interactions and your cultural adjustment during your study abroad period and eventually your personal and professional life on returning home. Being in a new cultural context while learning about cultural psychology promotes self-awareness and learning and brings many concepts to life. Development of cultural awareness, sensitivity and competence is facilitated.	3 credits
PSY 333	ABNORMAL PSYCHOLOGY	3 credits

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	The purpose of this course is to give the student an opportunity to explore current issues in understanding and treating abnormal behavior. The course will provide an initial overview of history, perspectives, assessment (DSM), diagnosis and treatment, followed by an in-depth look at several disorders from a combined biological, developmental and cultural approach. The focus will be to achieve an understanding of the various ways that human behavior can be compromised and the various factors that affect our ability to adapt.	
PSY 353	SENSATION AND PERCEPTION Learn how the human body turns different physical stimuli into neural impulses (sensation), and how the brain receives and interprets these impulses (perception). The Focus will be on commonalities between senses as a guide to understanding how the brain interprets data about the external world.	3 credits
PSY/BIO 360	BIOLOGICAL PSYCHOLOGY The course begins with brief overviews of the structure of the central nervous system, basic principles of nervous conduction and synaptic transmission, neurotransmitter systems, and basic techniques used in biological psychology research. We will then review current knowledge on the biological substrates of a range of behaviors and mental processes, including perception, memory, emotion, and sleep. The course will also examine the biological basis of a variety of neuropsychological disorders and forms of mental illness, including addiction, depression, and anxiety. Finally, the course will take advantage of its location in Madrid to understand biological psychology within a Spanish cultural and scientific context.	3 credits
PSY/MGT 363	PSYCHOLOGY AND THE WORKPLACE Application of psychological theory/research to recruitment, personnel selection, training/development, job design, work group design, work motivation, leadership, performance assessment, and job satisfaction measurement. Industrial/organizational psychology is the application of the scientific study of human behavior and thinking to work organizations. I/O psychology is both an academic discipline and a professional discipline; thus, in this class we focus on the research and the application of research findings to practical problems in the workplace. I/O psychologists are concerned with the recruitment, selection, training, motivation, and job performance of individuals at work. They are also involved in issues such as teamwork, leadership, and job attitudes.	3 credits
PSY 410	HEALTH PSYCHOLOGY Recent advances in psychological, medical, and physiological research have led to a new way of thinking about health and illness and understanding that our health is not only the product of biological processes but also of psychological, behavioral and social processes. Health psychology is a relatively young field of study that examines the relationship between psychology and health. The course highlights differences between health psychology and the biomedical model and examines the kinds of questions asked by health psychologists like: How our personality may affect our health? What does stress do to our health? What psychological and social factors cause people to behave in unhealthy ways? What can psychologists do to help cure illness? Are there ethnic and gender variations in health? Does it matter how your doctor talks to you?	3 credits
PSY 450	PSYCHOLOGY AND RESEARCH This course aims to offer an opportunity for undergraduates to gain a meaningful research experience while earning course credit. The course has been designed to teach research theory because, as in all the natural sciences, ideas in psychology need to be critically evaluated using available research evidence. An emphasis will be placed on critical thinking to encourage students to exercise analytical, independent, qualitative and quantitative thinking with scientific concepts and not only to memorize the	3 credits

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	material presented in class. This is not a textbook course and students will be expected to read and discuss assigned readings, write reports, and listen to and give presentations about current research.	
SOCIOLOGY		
LIT/SOC 349	<p>BORDERS, MEMORY, IDENTITIES: CULTURAL REPRESENTATIONS OF CONTEMPORARY MIGRATIONS IN EUROPE</p> <p>This course offers an introduction to the different cultural representations of contemporary migrations into and within Europe. The emphasis will be given to the study of the realities and their cultural representations of both emigration and immigration and the sociocultural and cognitive effects migration may have on migrants as well as on European citizens and national institutions. Forced migration towards Europe has had a deep cognitive and emotional impact on the migrant subjects, shaping their individual and collective identity. It has even disrupted not only migrants' own conscience, but also the way that national governments in Europe and worldwide have perceived what now is referred to in the media as the refugee crisis. The main influx on non-European migrants has been mainly through: a) Greece and the Balkans countries, b) Libya and Italy, and c) the Spain's African territories (Ceuta and Melilla) into Andalusia. The extent that it is relevant, the textual and cultural representations of both emigration and immigration in Europe will be studied in relation to their historical and social backgrounds as well as from an interdisciplinary and an international perspective.</p>	3 Credits
RELIGIOUS STUDIES		
REL 312	<p>THE CHILDREN OF ABRAHAM: JUDAISM, CHRISTIANITY, AND ISLAM</p> <p>This course is a comparative study of the three Abrahamic religions; Judaism, Christianity and Islam. It examines the shared aspects as well as the distinct elements of these religions, and shows that sometimes these traditions work together and sometimes they are at odds with each other. The course first introduces the three Abrahamic religions emphasizing their common source. Then it compares them along thematic lines, and finally it examines the way these three major traditions impact the modern West and the Middle East specifically. Among the themes to be discussed are: Abraham, scripture and tradition, law, the creation, God, worship, mysticism, the house of God, the tradition of head covering, homosexuality, Jerusalem, and the end of times.</p>	3 Credits

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