

FALL COURSE DESCRIPTIONS

Students can earn from 12 to 15 credits. All courses at Perrotis are offered in English and receive 3 US credits each.

Note: All courses marked with * need a minimum of five study abroad students to run.

Perrotis College courses support the school's philosophy of learning by doing, offering hands-on experience in our labs or fields. Students gain a unique European perspective into the agro-technology sector and benefit from the school's holistic approach.

Students can choose courses from the following fields of study:

- ✓ Sustainable Agriculture & Management
- ✓ Food Science & Technology
- ✓ International Business with pathways in:
 - ✓ Marketing Management for the Food Industry
 - ✓ International Food and Agribusiness Management
- ✓ Animal Science
- ✓ Environmental Science

GED4001 Greek Cultural Experience

Greek Cultural Experience is a mandatory course for all terms.

This core course introduces students to Modern Greek life and culture, including basic elements of Greek language, history, society, cuisine and traditional dance. The course enriches the students' experience by visiting important historical, religious and cultural sites throughout Greece. Students are introduced to basic concepts that enable them to understand and respond to cultural differences.

Sustainable Agriculture & Management

GRK4010 Introduction to Agro-Environmental Systems (Year 2)

This course introduces the major parts of the agro-environmental continuum and a systems approach to sustainable soil-plant-water management. Students learn the major processes and mechanisms of each system component, the interaction between the components and the major consequences from management practices that lead to environmental problems.

GRK4021 Environmental Technology and Agricultural Machinery (Year 2)

The fundamentals of environmental technology and agricultural machinery use, including safe use and basic repair techniques of field tractors and implements are explored. Emphasis is also given toward selection investment, management of farm machinery and environmental sustainability.

GRK4033 Introduction to ICT Systems for Agriculture and the Environment (Year 2)

Gain an introduction to the most updated computer operating systems, and useful software and hardware used for editing, calculations and other farm management information and decisions. Examples for ICT agricultural applications and environment are included. Upon completion students are able to describe, utilize information technologies and demonstrate skill in ICT applications.

GRK4035 Agricultural Marketing (Year 2)

Students are introduced to theories, concepts and problems of marketing goods and services. Topics include promotion, placement and pricing strategies for products. In addition students will learn the role of research in marketing. Building on the above, students are introduced to the tools, factors and concepts used by management in planning, establishing policies and solving marketing problems. Specific topics include consumer demand and behavior, location analysis, marketing, functions, institutions, channels, prices and public policy.

GRK4036 Principles of Microbiology and Chemistry (Year 2)

The course introduces students to main concepts of inorganic and organic chemistry. Furthermore, students are introduced to microorganisms, their nature and properties and how they relate to the environment and to food coming from soil. Upon completion, students are able to apply and exploit this knowledge for the optimal solving of problems relevant to the abiotic environment (soil) and the living systems (plants and animals).

GRK5004 Principles of Precision Agriculture & Environmental Sustainability (Year 3)

The key principles of precision agriculture and environmental sustainability are addressed. Students learn about the design and implementation of simple precision agriculture management plans, complemented by field experience using key precision agriculture tools and technologies. The course addresses how precision agriculture relates to changes in agro-environmental systems through EU Common Agricultural Policy.

GRK5027 Plant Physiology (Year 3)

How do plants grow? More importantly, how can they grow faster, better, stronger? Learn about the fundamentals of plant physiology and understand the biological processes affecting plant growth, development and yield. This course helps students understand the “plant” component of the soil-plant-atmosphere continuum, providing a background for the sustainable management of production systems.

Prerequisites: Completion of a course in Botany or Plant Biology, or equivalent background.

GRK5030 Principles of Plant Pathology (Year 3)

Fundamental knowledge of plant-microbe interactions is needed to identify symptoms of major diseases and diagnose the causes of diseases. Students learn about major management practices for disease control, from understanding how pathogens attack to soil climate conditions favoring plant disease.

Prerequisites: Completion of a course in Botany or Plant Biology, or equivalent background.

GRK5049 Waste Management (Year 3)

This course introduces students to specialized knowledge in areas of waste management including wastewater, solid waste and air pollution. Students develop an understanding of the complex environmental systems and growing problems associated with waste production and disposal in a developed society.

GRK5056 Biometry and Agricultural Experimentation (Year 3)

In order to gain a representative sample from large amounts of data, statistics has become a major tool in biological sciences. This course provides students with basic statistical knowledge, allowing students to properly perform data analysis, produce appropriate graphs, correlate data, use predictions models, and interpret the statistical analysis.

GRK5057 Principles of Pesticides – Applications & Safety (Year 3)

This course provides an in-depth study of pesticide safety and application, including chemical principles, selection methods, application techniques, regulations, and environmental concerns. Emphasis is placed on integrated pest management (IPM) strategies and the responsible use of pesticides in agricultural and non-agricultural settings.

Prerequisite: Completion of a general chemistry or biochemistry course or equivalent background

GRK6020 GIS in Agriculture & the Environment (Year 4)

GIS (Geographic Information System) allows us to visualize and interpret data in order to understand patterns, relationships, and trends. In this course, students are introduced to GIS software and technology as well as its agricultural applications. Data relating to Earth's surface is very applicable to agriculture and students work with GIS software in order to evaluate land, soil and crop systems to provide optimum management solutions, integrating multiple layers of information. This course emphasizes hands-on experience working with producers, vendors, and researchers collecting data; developing spatial databases, analyzing data; and communicating findings.

GRK6039 Horticultural Science (Year 4)

The study of ornamentals and edibles dates back thousands of years and continues to be an important field of study. Students learn the fundamentals of horticultural science (fruit, vegetable, flower plants) as well as about new and innovative production systems and important aspects of their production management.

Prerequisites: Completion of a course in Botany or Plant Biology, or equivalent background.

GRK6045 Post-Harvest & Olive Processing (Year 4)

This course introduces students to the main practices and methods exercised during olive harvesting and the process right after the harvesting (postharvest) of table olives and olives for olive oil production. Factors affecting table olives and olive oil quality at postharvest and final processing are addressed.

GRK6063 Medicinal & Aromatic Plant Production (Year 4)

The history, importance and main cultural practices involved in sustainable medicinal and aromatic plant production are examined in this course. Agronomic characteristics, climatic and soil requirements, propagation methods, nursery techniques, planting and maintenance are covered, with an emphasis on organic and integrated crop production methods.

Prerequisites: Completion of a course in Botany or Plant Biology, or equivalent background.

GRK6064 Farm Management (Year 4)

Students develop a deep understanding of farm management skills and the implications of running a farming business. The course covers how to prepare budgets and business plans, analyze the financial aspects of running the business (financial statements and cash flow analysis) and ways to improve productivity in terms of total production. The course also addresses how to apply principles of sustainable economy in farm management.

Food Science & Technology

STF4026GK General and Organic Chemistry (Year 2)

This course provides students with foundational knowledge of inorganic and organic chemistry relevant to food science, while introducing the role of analytical chemistry in food science and developing essential laboratory skills.

STF4027GK Food Raw Materials (Year 2)

Students explore key concepts in food raw materials and food related issues. Topics covered include the food chain and fundamental principles that underpin food sources, quality, production and processing. The structure, composition and nutritional quality of food commodities commonly consumed, e.g. cereals and cereal products, milk and milk products, fish, meat and meat products, eggs, fats and oils, sugar and sugar products, beverages (alcoholic and nonalcoholic), fruit and vegetables are addressed. Current food related issues e.g. food labelling and modification processes, the role of supermarkets, food politics and environmental, technological & political influences on raw material production are also reviewed.

STG4029GK Introduction to Food Microbiology and Toxicology (Year 2)

This course unifies biology, microbiology and toxicology to better understand the sources of foodborne diseases. Information related to the toxic substances present in food as endogenous ingredients, as exogenous factors from the environment, as products of interaction of ingredients in the manufacture and as toxins of microorganisms is also covered. The course also explores the types of pathogenic microbes and toxicants present in food systems, (including water), their routes of exposure and modes of action, as well as their effects on human health and the environment.

NOTE: This course is intended for non-Microbiology majors.

STG4033GK Food Marketing (Year 2)

This course introduces students to theories, concepts and problems of marketing goods and services. Topics include promotion, placement and pricing strategies for products. In addition students will learn the role of research in marketing. Building on the above, students are introduced to the tools, factors and concepts used by management in planning, establishing policies and solving marketing problems. Specific topics include consumer demand and behavior, location analysis, marketing, functions, institutions, channels, prices and public policy.

STF4034GK Mathematics and Research Methodology (Year 2)

This course introduces students to a broad overview of quantitative and qualitative approaches regarding data collection and analysis associated with agro-business management and systems. It develops a sound knowledge of research and evaluation methods considered across a range of applications as well as skills in sourcing and evaluating information. Also, it familiarizes students with academic material, writing and presentation styles, and the procedures, protocols and processes of academic and applied research, encourages original, critical and independent thinking and assists in the development of a coherent proposal for a research based project such as the Dissertation or Enterprise Project at GE level. The second part of the course is devoted to basic concepts of Algebra used at BSc level, e.g. tables and linear systems, and a brief introduction to single variable calculus. Finally, the third segment of the module is devoted to probabilities and their applications.

STF5004GK Processing Technology (Year 3)

The course provides technical knowledge and understanding of industrial processing of food in a general and wide-ranging context while assessing and evaluating methods, equipment and control parameters. Topics covered include equipment selection, performance and suitability as well as process control systems.

ENH5013GK Applied Food Law (Year 3)

The principles, methods and legal requirements involved in foodstuff contaminants complaints are addressed. Students learn the EU legal framework which regulates the food industry, including available statutory defenses.

STF5020GK Nutrition (Year 3)

This course provides a sound, basic understanding of the role and function of macronutrients, micronutrients and energy balance in both the body and in population health. The effect of micronutrient deficiency and excessive intake is also explored. *NOTE: This course is intended for non-Nutrition majors.*

STF5021GK Statistical Techniques in Research (Year 3)

This course introduces students to statistics, covering key descriptive metrics, the concept of random variables, and both discrete and continuous distributions. Students learn how to apply statistical tests, interpret their results, and report findings accurately. Topics include evaluating basic descriptive statistics, working with uniform, binomial, and Poisson distributions, understanding the central limit theorem, and using normal distribution tests like Shapiro-Wilk.

STF5022GK Advanced Biochemistry: Enzymes & Metabolism (Year 3)

This course covers certain advanced aspects of biochemistry pertaining to biological systems and food science. Students gain an understanding of the structure and mechanism of action of enzymes and enzyme inhibitors. Topics covered include main cell metabolic pathways and their role in physiology as well as the metabolism of food macromolecules (carbohydrates, lipids, and proteins). Lab work with certain biochemical reactions which are important in food science is included.

STF5024GK Chemical Analysis of Food (Year 3)

In this course, students gain an understanding of the principles and practice of chemical analytical techniques. Students learn to plan, analyze and select appropriate analytical techniques with reference to safety and technical constraints; to analyze samples of foods and produce a report outlining the chemical status of the food, to evaluate results and compare data with manufacturers/literature/legal values. The main analytical techniques used in the food industry are explained in theory while students practice the main analytical techniques used in the food industry. *Prerequisite: Completion of a general or organic chemistry course or equivalent background*

STF6007GK Food Biotechnology (Year 4)

In this course, students gain knowledge and understanding of the development and application of biotechnology. This includes molecular biology, applied enzymology and intact cellular systems and their role in food materials and processing. Historical and traditional aspects are covered as well as case studies in the food industry. *Prerequisite: Completion of a general chemistry or biochemistry course or equivalent background*

STF6008GK Applied Food Biochemistry (Year 4)

This course explores the complex chemical reactions and processes that occur in food components during storage, processing, and consumption. It delves deeper into the molecular and biochemical aspects of food and provides insight into how various factors can influence the quality, safety, and nutritional value of food products. The course teaches students to relate the fundamental chemistry of food molecules to physiological effects, sensory properties and aspects of food toxicology and allows them to critically discuss the functional behavior of food constituents and the underlying chemistry and biochemistry involved.

Prerequisite: Completion of a 2000 level chemistry or biochemistry course or equivalent background.

STF6026GK Contemporary Nutrition (Year 4)

This course, which is revised continuously as new information becomes available, covers multiple aspects of nutrition on human health and food industry practices. Scientific controversies relevant to nutrition and the food industry are also discussed.

STF6032GK Food Safety and Quality Management Systems (Year 4)

This course examines appropriate systems for the creation and maintenance of quality assurance throughout the business and its workforce to maintain profitability through appropriately meeting legal requirements and customer needs. Students gain an overview of global food standards and auditing techniques and how they can be applied to the food industry.

STF6033GK Fruit and Vegetables Technology (Year 4)

The course provides technical knowledge and understanding of industrial processing of food in a general and wide-ranging context with a view to assessment and evaluation of methods, equipment, control parameters and their effects (quality and safety) on various fruit and vegetable produce. Students learn the technological and commercial issues related to the processing of food materials and how to critically evaluate the function, properties and interaction of raw materials by manufacturing a range of fruit and vegetable products. A selected range of procedures is used to objectively assess the performance of the product.

International Business

GRK4016 Principles of Law (Year 2)

Students learn the “fundamentals” of both the English and the Greek legal systems while also highlighting and addressing classic and contemporary issues that can be found within them. It provides an understanding of the nature and role of law (international and national) in society and a basic understanding of the major classifications of law, as well as an awareness of the British, Greek and European constitutional background to the law. Students also become aware of the general principles of law of obligation and also learn to recognize the different types of business associations at an international and national level.

GRK4017A Management I (Year 2)

With this course, students are introduced to the managerial approach to organizational behavior. The student is encouraged to develop a critical appreciation of the structure, systems and operation of organizations, the process of management, the behavior of people at work and the influence of such systems on human behavior. The course is designed to give the student an understanding of the need for organizational effectiveness and the importance of the role of management as an integrating activity. It covers a wide range of issues from the individual level up to the macro-organizational level, emphasizing the complex inter/intra-relationships between individual and group behavior, organizational structure and organizational processes.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK4019A Business Environment I (Year 2)

In this class, students gain a systemic understanding of business. The students develop an appreciation of how economic, political, societal and technological variables influence organizational structure and the ability of companies to meet customer requirements in a profitable manner. In addition, the course contributes to the creation of a sound foundation of knowledge and understanding of the agricultural and food sector and its role in modern society and economy.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK4110A International & Global Marketing in a Digital World I (Year 2)

This course introduces students to the theory and practice of digital marketing in a global context. It develops their understanding of international marketing decision-making, key frameworks, and management skills, while enabling them to critically evaluate and apply analytical approaches to digital marketing opportunities across diverse global markets.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK4111A HR Management I (Year 2)

This course introduces students to the key principles and practices of Human Resource Management (HRM) in modern organisations. It explores how people are managed at work and the role of HRM in supporting organisational effectiveness in both domestic and global contexts. Students gain an understanding of core HR functions, the employment relationship, and the ethical and professional responsibilities of HR practitioners. By the end of the course, students are able to explain the role and importance of HRM, outline key HR functions, and recognise the impact of external factors such as legislation, labor markets, and globalization on HR practices.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background

GRK5022 Business Management (Year 3)

With this course, students gain a systemic understanding of how economic, political, societal and technological variables influence business structure and the ability of companies to meet customer requirements. Students also gain knowledge and understanding of the agricultural and food sector and its role in modern society and economy.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK5024A Consumer Behavior & New Product Development I (Year 3)

Students explore how consumers make decisions about selecting, purchasing, using, and evaluating food products and services. The course covers the internal and external factors that influence consumer choices and how these insights can be applied to product development. Students also assess consumer and manufacturer needs, identify gaps in the food market, and propose the development of a new food product.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK5025A Financial Management I (Year 3)

The course reviews the financial institutions, sources of credit, criteria used to evaluate loan requests and financial accountability. Through various methods, including conducting research on an agro-business or food company, this course explores the application of a range of financial analysis and planning tools, asset evaluation and risk management, capital budgeting and capital structure.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK5116 AI Marketing and Business (Year 3)

This course introduces students to the application of Artificial Intelligence (AI) in marketing and business contexts. It examines how AI-driven tools and data analytics are transforming decision-making, customer engagement, and competitive strategy. Students will develop a critical understanding of AI technologies, their practical business applications, and the ethical, legal, and strategic implications of their use in contemporary organisations.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK5117A Sustainable Food Processing and Quality Management I (Year 3)

Students gain with an integrated understanding of food processing technologies and quality management systems in the agri-food sector. It focuses on the relationship between industrial food processing operations, product quality, safety, legislation, and consumer expectations, enabling students to evaluate processing methods, equipment, and quality systems within a regulatory and commercial context.

GRK6006 E-Commerce (Year 4)

The marketing aspects of e-commerce are introduced in this course as well as the theory and practice of doing business over the internet. The course covers topics such as prospects for business-to-business and business-to-consumer e-commerce and options for doing business on the internet.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK6007 Advertising and Branding (Year 4)

Students examine the importance of advertising, the role branding plays in marketing strategies and explore brand equity. The course introduces students to basic advertising terminology, enables them to develop marketing skills to better understand practical and theoretical issues involved in branding and advertising. Students develop teamwork skills, in particular: organization; negotiation; delegation; co-operation; leadership.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK6009 International Marketing Management (Year 4)

This course introduces the fundamentals of international marketing, including entry strategies, risk assessment, global branding, cultural adaptation, regional trading blocks and intellectual property protection.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK6032 Corporate Social Responsibility (Year 4)

Corporate Social Responsibility (CSR) refers to the initiatives a company takes to understand its effects on environmental and social wellbeing and how it chooses to take responsibility for its actions. In this course students apply the concepts of CSR in the context of the agriculture and food and drinks sectors.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

GRK6033 Retail Management (Year 4)

This course provides an understanding of fundamental retail management issues and concepts as well as the relationship between marketing and retail. Emphasis is placed on the food and drink retail sector and on issues such as location, operational organization, retail policy development and control, promotions and legal and ethical considerations.

Prerequisites: Completion of a course in Business or Marketing, or equivalent background.

Environmental Science

GRK4101 Climate Change throughout History (Year 2)

This course provides a sociological approach to environmental issues. It investigates the environmental and social impact of industry and policy responses. It also deals critically with environmental controversies within social science and the environmental movement. Emphasis is given to current trends in industrialization, urbanization, and globalization, analyzing the impacts these trends have on human health, environmental sustainability, and equity, while further examining a range of policy options available for responding to current problems.

GRK4103 Principles of Environmental Hydrology (Year 2)

Through this course, students gain knowledge of the principles of physical hydrology and the processes that determine the source, amount, and flow of water in the environment. They develop an understanding of the physical mechanisms governing water movement and storage and learn to quantify hydrological variables from field observations and calculations. Students also use a range of analytical methods, including computer software, to analyze data and acquire the skills to assess hydrological problems and recommend strategies for managing urban and rural runoff in response to climate change.

GRK4104 Principles of Ecology (Year 2)

This course is devoted to introducing students to ecological research. Students develop the ability to synthesize scientific knowledge and present it through scientific report writing, think critically and be able to relate observational data to known ecological theories. Students learn the principles related to evolution, adaptation, and niche theory, analyze datasets and compare results to support a theory, demonstrate the ability to reach valid conclusions through data interpretation and presentation. Students are asked to conduct research among various environmental science domains and communicate their scientific results.

Animal Science

GRK5929 Animal Welfare (Year 3)*

This course identifies and discusses controversial issues regarding the well-being of livestock as opposed to productivity and entrepreneurial goals of the animal industry. Topics discussed include living conditions, hygiene and diet. Students gain an understanding of why standards and actions are crucial and awareness of organizations and legislation involved in animal welfare.

GRK6044 Management of Livestock and Production (Year 4)*

Contemporary management practices that enhance livestock productivity are addressed in this course. Also covered are product quality assurance, livestock well-being, and cost-effective parameters. Students develop entrepreneurial skills related to livestock management. Issues related to food security, legislation, and genetics are also discussed.

GRK6046 Nutrition and Contemporary Feeding Systems - Cattle and Poultry (Year 4)*

Students learn fundamental concepts in digestion and metabolism. Nutrients and feeds required for livestock maintenance and production are identified and students have the opportunity to create feed firsthand. Principles of food analysis are also covered as well as the relation of nutrition to other constraints in animal production. Study visits to commercial factories and farms are included.