SPRING COURSE DESCRIPTIONS

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

Note: All courses marked with * need a minimum of four students to run.

All 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 and Management
- ✔ Food Science & Technology
- ✔ International Business & Food Business Management
- ✔ Environmental Science
- ✔ Digital Marketing

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 archaeological, religious and nature sites throughout Greece. Students are introduced to basic concepts that enable them to understand and respond to cultural differences.

Sustainable Agriculture and Management

GRK4010 Introduction to Agro-Environmental Systems *(Year 2)*
This module introduces students to the major parts of the agro-environmental continuum and a systems approach to sustainable soil-plant-water management.

GRK4041 Entomology *(Year 2)*
Students learn the principles of entomology, insect problems and control and environmental impact of insecticides. Insect morphology, physiology and taxonomy are covered and major insects and problems they cause in crops and in stored food and feed are also addressed. Students learn the environmental effect from insecticide use for crop protection and basic solutions for sustainable crop protection.

GRK4042 Environmental Soil Science *(Year 2)*
This course covers the fundamentals of soil ecological functions, genesis and classification; physical and chemical properties of soils that determine the suitability of soil for production of field, vegetable and fruit crops; soil organic matter; plant nutrients; and fertilizer composition. The course also introduces the Codes of Good Agricultural Practice. Agricultural land at the School's location and the surrounding region is used for practical, hands-on laboratory instruction.

GRK4043 Botany and Plant Propagation *(Year 2)*
This course introduces students to the fundamentals of botany and methods of plant propagation (sexual and asexual) of major cultivated plants. Students learn key information related to plant propagation including basic materials and methods used. In addition to the fundamentals of plant botany, through the course students understand the impact of biotechnology (tissue culture) on contemporary agricultural products and practices and nursery production.

GRK4047 Business Administration and Agricultural Accounting *(Year 2)*
This course provides an introduction to the managerial approach to organizational behavior particularly in the context of food and agro-environmental businesses. 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. Students gain an understanding of the need for organizational effectiveness and the importance of the role of management as an integrating activity.

GRK4048 Principles of Biotechnology and Plant Breeding *(Year 2)*
Through this course, students gain fundamental knowledge of plant genetics and breeding, including an understanding of cell structure and functions, organism genetics and plant selection methods. Plant reproductive systems are studied and key breeding objectives are identified.

GRK4049 Introduction to Livestock Science *(Year 2)*
This introductory course aims to inform students about the cell function and multiplication process; and the physiology of body functions in animals used in farm production; to introduce them to Mendelian genetics, and to enable them to identify the differences between qualitative and quantitative inheritance. The course also examines the reproductive mechanisms during the productive life cycle of an animal; as well as housing and environmental concerns as related to productivity and quality assurance.

GRK5013 Field Crop Production *(Year 3)*
In this course students are introduced to basic principles of field crop production systems, including crop specific input requirements, various cultural practices (sustainable, contemporary, integrated, organic), harvesting, and cost analysis for major field crops of the EU and the world.

GRK5026 Weed Science and Management *(Year 3)*
As weed management practices change and herbicide resistance continues to grow, understanding the role of weeds in agro-ecosystems is important. This course introduces students to the fundamentals of weed science and management using conventional, biological and high-tech methods for weed control for sustainable production.

GRK5033 Olive Production Systems *(Year 3)*
This course introduces students to the primary cultural practices and management involved in sustainable olive production. Students learn about soil and climate factors affecting productivity for both table olives and olive oil varieties. Traditional systems, integrated production, and new innovative technologies and systems, such as high planting densities adapted for full mechanical harvesting, are included.

GRK5053 Viticulture *(Year 3)*
Viticulture is the science, production, and study of grapes, dating back thousands of years. In this course students are introduced to the main aspects of viticulture, characteristics of grape varieties, and sustainable management practices. Students learn the fundamental requirements of grape production and the value of table and wine grape varieties.

GRK5054 Crop Nutrition and Soil Fertility Management *(Year 3)*
This course provides students with fundamental knowledge of plant nutrition and soil fertility as well as how they affect crop productivity. Also covered is the use of fertilizers to achieve sustainable production. Students learn to provide best fertility management practices as well as diagnose nutrient problems. *Prerequisite:* 2000 level Environmental Soil Science or equivalent.

GRK5055 Fruit Tree Production *(Year 3)*
Students learn in-depth knowledge of fruit tree production systems, their management and methods to control major pests and fruit tree diseases. Soil-climate requirements and management aspects are also addressed. *Prerequisite:* 2000 level Botany and Plant Propagation or equivalent.

GRK6022 Ecological Agriculture *(Year 4)*
This course introduces students to the fundamentals of ecological (organic) agriculture, under a variety of soil and climatic conditions. A holistic approach is used to help students understand the complexities of agro-ecosystems and recommend best management practices. Students will be able to enhance the sustainability of a range of agricultural management scenarios, analyze various farming practices, and evaluate crop species. *Prerequisite:* 3000 level Field Crop Production, Plant Physiology or equivalent.

GRK6040 Precision Agriculture Applications *(Year 4)*
This course delves deeper into the application of precision agriculture principles, focusing on innovative crop production systems and technology-driven decision-making in agricultural and environmental practices.

GRK6066 Irrigation and Water Management *(Year 4)*
This course introduces students to the major soil, physical and chemical properties affecting plant growth and soil – water management. Problematic soils, water and wind erosion, and soil and water pollution are also covered, and students learn how to apply the "LISA and SOCRATES" approach to the sustainable management of soil and water resources. Principles of efficient irrigation and systems, land use, and soil and water quality issues are also discussed.

GRK6067 Greenhouse Technology and Hydroponics *(Year 4)*

This course introduces students to the various types and functions of greenhouses, plant responses to the greenhouse environment, environmental control systems, construction materials, heating-cooling irrigation-fertilization systems, and the special management practices required to operate them under soil and soilless conditions. Students are exposed to various levels of technologies used for automation processes, production, and maintenance of crops. Students learn about the major types of greenhouses, materials for construction, and appropriate technologies. *Prerequisite:* 2000 level Botany and Plant Propagation or equivalent.

Food Science & Technology

STF4005GK Food Preservation and Process Technology *(Year 2)*

The course covers the principles and practices of food processing & preservation techniques, and how these relate to distribution, storage, quality and safety of food. Major techniques are addressed and their effect on shelf life and food quality are examined. Students utilize a range of food processing/preservation equipment to demonstrate practical skills and techniques and evaluate experimental results.

STF4025GK Introduction to Biochemistry *(Year 2)*

The course introduces aspects of biochemistry pertaining to biological systems and food.
The structure of important biological molecules is studied and the relationship between structure and biological role of selected compounds in biological systems. The dynamic nature of basic biochemical mechanisms in cells and their constituents is examined

STF4030GK Applied Food Microbiology *(Year 2)*

Students gain an understanding of the types and causes of food borne disease and food contamination affecting the human population. How such diseases and contamination can be controlled in the workplace and in the home is also addressed.

STF4031GK Introduction to the Physical Chemistry of Foods *(Year 2)*

The course provides an understanding of the underlying principles of physical chemistry and how these are relevant for the food sector. Topics including thermodynamics and the importance of water in food systems are covered.

STF4032GK Principles of Food Chemistry *(Year 2)*

This course introduces students to the chemistry of the major and minor components of foods and explores the relationship between the chemistry of food components and their functional properties in food systems. Students learn the behavior and interactions of the main ingredients in food systems and how destabilized conditions can be regulated.

STF5012GK Dairy Technology *(Year 3)*

In this course students learn about technological and commercial issues related to the processing of liquid milk. Also covered in the course is how dairy products are manufactured, stored and handled, providing students the theoretical and technical skills needed for use in the dairy industry.

STF5023GK Sensory Analysis of Food *(Year 3)*

Food is never a single sensory experience. In this course students gain an understanding of the principles and practices of food processing and preservation techniques, sensory analysis, and how these relate to distribution, storage, quality, and safety of food. Students learn the basic physiological mechanisms of each of the senses: sight, smell, taste, touch, and hearing, and their involvement in sensory analysis. Students also set up, carry out, analyze, and comment on the results of sensory analysis panels.

STF5027GK Food Engineering and Waste Management *(Year 3)*
Food engineering and waste management are important sectors of the food manufacturing industry aiming of learning the basic principles of food processing and standardization of food. With increasing competition, there is a need for product and process control to optimize processing operation energy conservation and waste control.

International Business & Food Business Management

GRK4017B Management II *(Year 2)*
This course provides an overview of organizational behavior. The student is encouraged to develop a critical appreciation of the structure, systems and operation of organizations, the behavior of people at work and the influence of such systems on human behavior. It is designed to give the student an understanding of the need for organizational effectiveness. It covers a wide range of issues, emphasizing the complex inter/intra-relationships between individual and group behavior, organizational structure and organizational processes.

GRK4018B Marketing II *(Year 2)*
Through Marketing II, students develop an appreciation of the importance of advertising and the role branding plays in the marketing strategies, giving them the opportunity to explore brand equity. The course introduces students to basic advertising terminology, enables them to develop marketing skills to enhance their knowledge of the practical and theoretical issues involved in branding and advertising, and teamwork skills, such as organization; negotiation; delegation; co-operation; leadership.

GRK4019B Business Environment II *(Year 2)*
This course enables students to gain a systemic understanding of business. 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. Students gain an understanding of the concepts of macro-economics and learn how external factors influence the size and structure of organizations.

GRK4020 Principles of Food Science for Managers *(Year 2)*
Students learn basic food constituents and their importance in promoting health and preventing disease, as well as the reasons for food spoilage and the methods of prevention. The content of this course is developed around four interrelated knowledge blocks: The management of food production, introduction to food science, food spoilage and safety and food processing.

GRK5021B Quality in the Agri-Food Sector II *(Year 3)*
In this course, students review minimum legislative standards required for food products to satisfy customer preferences. The responsibilities and liabilities of the consumer and manufacturer are also addressed.

GRK5023 Food, Taste and Society *(Year 3)*
Students are introduced to the socio-cultural aspects of food, both in a family and public context. The role of food and drink choices as identity markers and as a means of self-disclosure is addressed. Such an understanding facilitates students' ability to undertake new product development in the food and tourism sectors.

GRK5024B Consumer Behavior and New Product Development *(Year 3)*
The decision to make a purchase involves much more than meets the eye. The course introduces students to the social science concepts, principles, and theories that explain consumer behaviors. Students learn to identify the needs of the consumer and manufacturer for new food products, review an area of food not fully exploited where a new product could be introduced and describe the development of this new product.

GRK5025B Financial Management II *(Year 3)*
This course focuses on the study of financial institutions serving the agricultural and food industry. Students review the financial institutions, sources of credit, criteria used to evaluate loan requests and financial accountability. Through various methods, including conducting research on an agrobusiness 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.

Digital Marketing

BSP5083B Digital Analytics II *(Year 3)*
In this course students learn to measure, monitor and evaluate the effectiveness of digital marketing activities. Web analytics, mobile and social media monitoring are also examined. The course focuses on developing an understanding of KPIs, selecting measurement tools, analyzing reports to improve performance and creating tests to improve owned and bought media messages.

BSP5090B Marketing Research Methods *(Year 3)*
This course explores how academic and practitioner market research supports marketers and managers in making informed business decisions, such as launching new products or discontinuing underperforming ones. Using action-research this module will equip students with the ability to design and conduct a marketing or consumer research study, consider the methods available for the capture of reliable and representative data, analyze data through statistical and non-statistical techniques, examine the role of secondary and primary research, understand ethical consideration and develop an appropriate academic writing style.

DMM5001B Creative Digital Marketing Communications II *(Year 3)*
Students in this course acquire a sound understanding regarding the principles and practice of digital marketing communication. Students are introduced to the digital marketing communication mix which comprises communication tools, media and messages followed by a focus on the creative skills needed to design and activate marketing communication campaigns. Students develop proficiency on key platforms, such as social media, product writing, critique, e-magazine journalism and video/podcasting.

DMM5003B Digital Consumer Behavior II *(Year 3)*
This course challenges students to explore the principles, methods, and influences shaping 21st-century consumer behavior. It examines decision-making, consumer culture, brand interactions, advertising, self-concept, and social consumption, all within a marketing management context.

BSP5097B Mobile and Social Media Marketing II *(Year 3)*
Students examine the benefits and opportunities that arise from consumers' use of mobile phones and social media platforms and how it fits into the overall Marketing Communication Mix. This provides a solid understanding of the rapid evolution of both the mobile marketing and social media landscapes, an understanding of the various mobile marketing technologies and the opportunity to examine social media's rapid evolution and fundamental shift in how we access information today.