



**FACULTY OF VETERINARY
MEDICINE**

UNIVERSITY OF CORDOBA (SPAIN)

-E CORDOBA01-

LLP ERASMUS

ECTS European Credit Transfer System

Degree in Food Science and Technology

FIRST YEAR

COURSE	FOOD AND CULTURE			SIGA Code 980048
Type Core	Year 1st	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 4.5
Course description	Food in human culture. The psychology and sociology of food and behaviour. Communication techniques.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content. Students will also be assessed on class attendance and monographic assignments.			

COURSE	FOOD ANALYSIS AND QUALITY CONTROL			SIGA Code 9820061
Type Core	Year 1st	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.5
Course description	Analysis and quality control of foods.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content. Students will also be assessed on class attendance and monographic assignments.			

COURSE	BROMATOLOGY			SIGA Code 9820049
Type Core	Year 1st	Period 1st semester	Hours per week (lecture hours) 4	ECTS Credits 7.5
Course description	Food products. Composition, properties and nutritional value.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content. Students will also be assessed on class attendance and monographic assignments.			

COURSE	FOOD HYGIENE AND BROMATOLOGY			SIGA Code 9020053
Type Core	Year 1st	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Personal hygiene, products and processes.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content. Students will also be assessed on class attendance and monographic assignments.			

COURSE	FOOD PARASITOLOGY			SIGA Code 9820050
Type Core	Year 1st	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Parasitic contamination and parasitological deterioration of foods. Pathogenic parasites in foods.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	BASIC OPERATIONS IN THE FOODS INDUSTRY			SIGA Code 9820058
Type Core	Year 1st	Period 2nd semester	Hours per week (lecture hours) 3	ECTS Credits 6.5
Course description	Basic operations in the foods industry.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content. Students will also be assessed on class attendance and monographic assignments.			

COURSE	RAW MATERIAL PRODUCTION			SIGA Code 9820054
Type Core	Year 1st	Period 2nd semester	Hours per week (lecture hours) 4	ECTS Credits 7.0
Course description	Basic principles of production systems for foods of plant or animal origin.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	FOOD TOXICOLOGY			SIGA Code 9820052
Type Core	Year 1st	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Basic and experimental toxicology. Abiotic food contamination. Food-based intoxications. Pesticides.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	FOOD CHEMISTRY AND BIOCHEMISTRY			SIGA Code 9820056
Type Core	Year 1st	Period 2nd semester	Hours per week (lecture hours) 4	ECTS Credits 7.0
Course description	Food components. Chemical modifications of foods during treatment and storage. Food additives.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

SECOND YEAR

COURSE	NUTRITION AND DIETETICS			SIGA Code 9820062
Type Core	Year 2nd	Period Annual	Hours per week (lecture hours) 3	ECTS Credits 11.0
Course description	Personal diet at different life stages. Group diets. Diet as a means to prevent multiple pathologies. Nutrients. Human nutrition. Study of the nutritional state of individuals and communities. Food surveys.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content. Students will also be assessed on class attendance and monographic assignments.			

COURSE	FOOD ENTERPRISE ECONOMICS AND MANAGEMENT			SIGA Code 9820063
Type Core	Year 2nd	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 5.5
Course description	Business economics and administration. Food commercialisation. Food production and consumption.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	PUBLIC HEALTH			SIGA Code 9820066
Type Core	Year 2nd	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Health care services. Public health and nutrition. Personnel hygiene.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	INDUSTRIAL MICROBIOLOGY			SIGA Code 9820060
Type Compulsory	Year 2nd	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 5.5
Course description	Microorganisms of industrial interest. Industrial fermentation. Principal products of industrial interest obtained by means of microorganisms. Production of primary and secondary metabolites. Improvement and development of food strains.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	FOOD TECHNOLOGY			SIGA Code 9820059
Type Core	Year 2nd	Period 1st semester	Hours per week (lecture hours) 5	ECTS Credits 8.5
Course description	Elaboration. Conservation, canning and bottling, food storage and transport Culinary technology.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	INDUSTRIAL FOOD PROCESSING PLANT DESIGN			SIGA Code 9820067
Type Core	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 1	ECTS Credits 3.5
Course description	Basic principles of projects.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	FOOD MICROBIOLOGY			SIGA Code 9820060
Type Core	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 3	ECTS Credits 5.0
Course description	Microbial contamination and microbiological deterioration of foods. Pathogenic microorganisms of foods.			
Methodology	Theoretical and practical classes			
Assessment	Exam on theoretical and practical course content			

COURSE	FOOD REGULATION AND LEGISLATION			SIGA Code 9820065
Type Core	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Regulations and food science. Food laws. Principles and applications. Deontology.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

OPTIONAL COURSES

COURSE	FOOD BIOTECHNOLOGY			SIGA Code 9820040
Type Optional	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Purification and characterisation of enzymes. Application of enzymes in food processes and analysis. Applications of genetic engineering for the food industry.			
Methodology	Theoretical and practical classes. Work outside the classroom.			
Assessment	Class attendance and work outside the classroom.			

COURSE	MEAT SCIENCE AND TECHNOLOGY			SIGA Code 9820070
Type Optional	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Obtaining and manipulating meats. Procedures for preserving and processing meats and meat products.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content. Students will also be assessed on class attendance and monographic assignments.			

COURSE	ANALYTICAL AND INSTRUMENTAL CONTROL IN FOOD CHEMISTRY			SIGA Code 9820071
Type Optional	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Quality assurance. Advanced methodology and instrumentation for food analysis. Automated systems in food analysis.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	MASS AND NMR SPECTROSCOPY IN FOOD CHEMISTRY			SIGA Code 9820072
Type Optional	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Organic compounds in foods. Applications of NMR and mass spectrometry for determining food components and contaminants or unauthorised additives.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	OILS AND FATS			SIGA Code 9820034
Type Optional	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Nature, raw materials and the use of oils and fats in industry.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	DAIRY SCIENCE			SIGA Code 9820031
Type Optional	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Obtaining milk. Conservation of dairy products.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	PLANT AND ANIMAL BREEDING			SIGA Code 9820074
Type Optional	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Breeding systems and improvement methods. Quantitative genetics.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	ORIGIN AND USE OF BY-PRODUCTS			SIGA Code 9820075
Type Optional	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	By-products in the food industry. Origin. Manipulation and treatment. Use.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	DRUG RESIDUES IN FOODSTUFFS			SIGA Code 9820042
Type Optional	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Impact of zoosanitary treatments on foods. Mechanisms that determine the formation, quantity and distribution of residues that constitute a health hazard for consumers.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	STATISTICAL METHODS IN QUALITY CONTROL			SIGA Code 9820076
Type Optional	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Statistical sampling. Monitoring manufacture and reception. Control graphs.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	BEVERAGE TECHNOLOGY			SIGA Code 9820078
Type Optional	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Alcoholic beverages. Non-alcoholic beverages. Raw materials. Manufacturing processes. Quality control.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	VEGETABLE PRESERVATION TECHNOLOGY			SIGA Code 9820079
Type Optional	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Previous treatments. Washing, peeling, scalding, sterilisation and canning or bottling. Juice, nectar and cremogenated drinks technology. Pickled foods. Table olives.			
Methodology	Theoretical and practical classes			
Assessment	Exam on theoretical and practical course content			

COURSE	SUGAR TECHNOLOGY AND RELATED INDUSTRIES			SIGA Code 9820077
Type Optional	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Sugar. Describing, using and obtaining sugar. Technology for sugar production processes. Related industries: honey processing. Confectionary industries: others.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	FISH TECHNOLOGY			SIGA Code 9820033
Type Optional	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Obtaining and manipulating fish. Processes for the elaboration of different fish products.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	WASTEWATER TREATMENT IN THE FOOD INDUSTRY			SIGA Code 9820038
Type Optional	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Wastewater characterisation. Water purification. Tertiary treatments. Legal aspects.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

TRAINING COURSES

COURSE	CHEMICAL ANALYSIS			SIGA Code 980001
Type Training course	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 5.5
Course description	Analytical methodology: basic operations. Instrumental analysis.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	BIOCHEMISTRY			SIGA Code 980002
Type Training course	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 5.5
Course description	Structure. Enzymology. Metabolism. Molecular biology and genetic engineering.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	PHYSICOCHEMISTRY			SIGA Code 980003
Type Training course	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 3	ECTS Credits 5.5
Course description	Chemical thermodynamics. Surface phenomena. Transport phenomena. Chemical kinetics.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	PHYSIOLOGY			SIGA Code 980004
Type Training course	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Organ functions. Human tracts and systems.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	CHEMICAL ENGINEERING			SIGA Code 980005
Type Training course	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 5.5
Course description	Matter and energy balance. Chemical reactors. Separation operations.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	MATHEMATICS			SIGA Code 980006
Type Training course	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 5.5
Course description	Mathematical analysis. Calculus. Statistics. Computing.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	MICROBIOLOGY			SIGA Code 980007
Type Training course	Year 1st or 2nd	Period 2nd semester	Hours per week (lecture hours) 3	ECTS Credits 5.5
Course description	General microbiology.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	INORGANIC CHEMISTRY			SIGA Code 980008
Type Training course	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Atomic structure and periodicity. Chemical bonding. Non-metallic and metallic elements and their compounds.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			

COURSE	ORGANIC CHEMISTRY			SIGA Code 980009
Type Training course	Year 1st or 2nd	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 5.5
Course description	Structural theory of organic compounds. Stereochemistry. Reactivity. Systematics of functional groups.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on theoretical and practical course content.			