



**FACULTY OF VETERINARY
MEDICINE**

UNIVERSITY OF CORDOBA (SPAIN)

-E CORDOBA01-

LLP ERASMUS

ECTS European Credit Transfer System

Degree in Veterinary Medicine

Degree in Veterinary Medicine

FIRST YEAR

COURSE	AGRONOMY AND AGRICULTURAL ECONOMICS			SIGA Code 1000107
Type Core	Year 1st	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.5
Course description	Soil-plant-animal relations. Plants used for livestock and factors that affect quality and yield. Forage and pasture crop production. Study of the production, use and preservation of foodstuffs of plant origin for livestock. Agricultural economics. Economics and commercialisation of agricultural products. Livestock development.			
Methodology	Theoretical lectures and practical classes.			
Assessment	Final exam (70%), practical exam (20%) and presentation of an herbarium (10%).			

COURSE	EMBRYOLOGY AND SYSTEMATIC ANATOMY			SIGA Code 1000101
Type Core	Year 1st	Period Annual	Hours per week (lecture hours) 3	ECTS Credits 8.5
Course description	Description of embryonic development in species of interest to veterinary science. Embryo manipulation. Congenital anomalies. Systematic and comparative anatomy of animal organs and systems.			
Methodology	Theoretical and practical classes.			
Assessment	Eliminatory mid-term exams: I. Embryology, II. Locomotor system and III. Visceral systems.			

COURSE	PLANT AND ANIMAL BIOLOGY			SIGA Code 1000104
Type Core	Year 1st	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 6.5
Course description	Animal morphology, bionomy and systems, particularly those of interest to veterinary science. Plant morphology, systems and associations of interest to veterinary science. Specific study of functional, hygienic, zootechnological and pathological aspects.			
Methodology	Theoretical and practical classes.			
Assessment	Multiple-choice exam on theory and practical exam.			

COURSE	BIOCHEMISTRY			SIGA Code 1000102
Type Core	Year 1st	Period Annual	Hours per week (lecture hours) 4	ECTS Credits 9.0
Course description	Molecular bases of life and productive processes. Molecular alterations in illness and disease. Applications for animal diagnosis, therapy and production. Applications in biochemical methods and research.			
Methodology	Theoretical classes and practical classes on topics that require biochemical calculations in order to aid students in resolving quantitative problems. Laboratory practicals to introduce students to the methods used in biochemistry and familiarise them with the procedures for handling biomolecules for experimental purposes.			
Assessment	Students will be assessed on the theory and class practicals by means of three mid-term exams. The laboratory practicals will be assessed following each session.			

COURSE		ETHOLOGY AND ANIMAL PROTECTION AND ETHNOLOGY		SIGA Code
				1000103
Type	Year	Period	Hours per week (lecture hours)	ECTS Credits
Core	1st	Annual	2	7.5
Course description	Study of the external morphology and the productive and ethnological characteristics of the principal species and breeds of use to man. Animal behaviour, domestication. Exploitation systems to mitigate suffering. Application of handling techniques for domestic animals.			
Methodology	Lectures combined with seminars and student debates in addition to practical sessions that will be conducted in the classroom with the aid of slides and videos on the topics seen during the course. Students will be assigned problems through the virtual classroom. The course content will be complemented by fieldtrips to livestock farms, competitions and fairs.			
Assessment	Exam on the theoretical and practical course content. Seminars and practical assignments.			

COURSE		PHYSICS		SIGA Code
				1000106
Type	Year	Period	Hours per week (lecture hours)	ECTS Credits
Core	1st	1st semester	3	4.0
Course description	Physical bases of biological and industrial processes applied to products of interest to veterinary science. Applications of physics for the veterinary sciences. Introduction to applied physics methods for research purposes.			
Methodology	Lectures with problem solving sessions in addition to a course assignment which is to be completed outside class hours and supervised during tutorials.			
Assessment	Students will be assessed by means of either a written or an oral exam. The oral exam will consist of answering and/or resolving a series of theoretical and/or practical questions. The written exam will be divided into two parts: a theoretical section with essay questions and a practical section in which students must resolve a series of problems.			

COURSE	IMMUNOLOGY			SIGA Code 1000109
Type Core	Year 1st	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.0
Course description	Basic principles and technical applications of immune response.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	MATHEMATICS			SIGA Code 1000108
Type Core	Year 1st	Period 2nd semester	Hours per week (lecture hours) 3	ECTS Credits 4.0
Course description	Basic principles of biometrics and statistics for veterinary science.			
Methodology	Theoretical and practical classes.			
Assessment	Exam with practical cases for resolution.			

COURSE	CHEMISTRY			SIGA Code 1000105
Type Core	Year 1st	Period 1st semester	Hours per week (lecture hours) 4	ECTS Credits 5.0
Course description	Chemical bases of biological processes of interest to veterinary science and their applications to medicine and industry. Chemical factors in the environment. Introduction to veterinary research methods.			
Methodology	Theoretical classes, seminars dedicated to problem solving and laboratory practicals.			
Assessment	Students will be assessed by means of a theoretical exam and on the problems solved during the seminars. There will be a multiple-choice exam on topics directly related to the laboratory practicals.			

SECOND YEAR

COURSE	NEUROANATOMY AND TOPOGRAPHIC ANATOMY			SIGA Code 1000110
Type Core	Year 2nd	Period Annual	Hours per week (lecture hours) 2	ECTS Credits 7.0
Course description	Configuration, structure, production and blood flow of the central nervous system, sensory organs and common tegument. Basic regional and topographic anatomy by species aimed at determining the situation, surface projection and relations of the organs located in a specific area of the body for clinical purposes.			
Methodology	Theoretical classes and practical sessions in the dissection room of the Department.			
Assessment	Eliminatory mid-term exams on the theoretical and practical course content or final exams on the theoretical and practical course content.			

COURSE	CYTOLOGY AND HISTOLOGY			SIGA Code 1000111
Type Core	Year 2nd	Period Annual	Hours per week (lecture hours) 2	ECTS Credits 7.0
Course description	The eukaryotic cell and its structure. Microscopic description of tissues, organs and systems in domestic and useful animals. Specific applications for the veterinary sciences.			
Methodology	Theoretical classes with the aid of transparencies, PowerPoint presentations, drawings and outlines. Practical classes conducted in the microscopy laboratory.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	EPIDEMIOLOGY			SIGA Code 1000116
Type Core	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.0
Course description	Descriptive, analytical and prospective description of phenomena that affect populations, especially with regard to factors concerning illness and health that have an impact on public health and ecosystems. Specific aspects related to veterinary science.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	ANIMAL PHYSIOLOGY			SIGA Code 1000112
Type Core	Year 2nd	Period Annual	Hours per week (lecture hours) 3	ECTS Credits 11.5
Course description	Function of organs, systems and the entire organism. Application of physiology for medicine and animal production. Introduction to applied physical techniques in research.			
Methodology	Theoretical and practical classes in the laboratory			
Assessment	Theoretical exam and practical exam for students who have missed more than two practical sessions.			

COURSE	GENETICS			SIGA Code 1000114
Type Core	Year 2nd	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 6.5
Course description	Biological inheritance: localisation and structure of hereditary information. Expression, regulation and variation. Genetic biotechnology. Clinical genetics. Transmission and recombination of genetic material. Applied population genetics. Introduction to advanced genetic techniques in applied genetics.			
Methodology	Lectures, practicals and the resolution of practical cases.			
Assessment	Final written exam with practical cases for resolution and theoretical questions.			

COURSE	MICROBIOLOGY			SIGA Code
				1000113
Type	Year	Period	Hours per week (lecture hours)	ECTS Credits
Core	2nd	Annual	2	8.5
Course description	Study of the morphology, structure, biochemistry, physiology, genetics and taxonomy of bacteria, fungi and viruses that cause infections or those having industrial, biotechnological and ecological applications.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	PARASITOLOGY			SIGA Code
				1000115
Type	Year	Period	Hours per week (lecture hours)	ECTS Credits
Core	2nd	1st semester	3	5.5
Course description	Parasite morphology, bionomy, physiology and systems in domestic and useful animals. Parasite-host-environment relations. Professional relations and implications in veterinary science.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

THIRD YEAR

COURSE		HEALTH AND ANIMAL BREEDING			SIGA Code
					1000117
Type	Year	Period	Hours per week (lecture hours)	ECTS Credits	
Core	3rd	Annual	2	8.0	
Course description	Genetic applications for breeding programmes. Genetic nature of characters of economic interest. Estimating the value of the offspring of reproductive candidates: Elimination of lethal and sublethal factors related to disease resistance. Selection modalities. Reproduction in consanguinity or cross breeding. Applications for animal breeding and reproduction.				
Methodology	Theoretical and practical classes.				
Assessment	Exam on the theoretical and practical course content.				

COURSE		GENERAL PATHOLOGY			SIGA Code
					1000124
Type	Year	Period	Hours per week (lecture hours)	ECTS Credits	
Core	3rd	1st semester	3	6.5	
Course description	General and comparative animal nosology, physiopathology and immunopathology.				
Methodology	Theoretical and practical classes.				
Assessment	Exam on the theoretical and practical course content.				

COURSE	GENERAL PATHOLOGICAL ANATOMY			SIGA Code 1000121
Type Core	Year 3rd	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 4.5
Course description	Study of the pathological alteration of cells, tissues and organs. Introduction to applications in animal pathological anatomy.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	CLINICAL PROPAEDEUTICS			SIGA Code 1000123
Type Core	Year 3rd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 4.5
Course description	Methods and procedures for clinical exploration including complementary laboratory techniques and their interpretation.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	RADIOLOGY			SIGA Code 1000122
Type Core	Year 3rd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Nature, production, properties and actions of ionizing radiation. Diagnostic and therapeutic applications. Protection regulations.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	FOOD TECHNOLOGY			SIGA Code 1000120
Type Core	Year 3rd	Period Annual	Hours per week (lecture hours) 3	ECTS Credits 10.0
Course description	Food properties. Basic operations in food industries. Practical work in installations for the treatment and transformation of foodstuffs. Introduction to research and manipulation methods in pilot food technology plants.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	PHARMACOLOGY, PHARMACY AND THERAPEUTICS			SIGA Code 1000118
Type Core	Year 3rd	Period Annual	Hours per week (lecture hours) 3	ECTS Credits 10.0
Course description	General principles of veterinary pharmacokinetics, pharmacodynamics, pharmacy and therapeutics. Basic description of the principal pharmacological groups. Mechanisms of pharmacological action and effects and their therapeutic and toxic consequences. Study of pharmaceutical forms and their pharmacokinetic applications. Pharmacotherapy. Specific applications in domestic animals and their effects on zootechnology.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	ANIMAL NUTRITION			SIGA Code 1000119
Type Core	Year 3rd	Period Annual	Hours per week (lecture hours) 2	ECTS Credits 8.0
Course description	Assessment of the foods and nutritional needs of domestic and useful animals according to their digestive and metabolic processes. Analytical methods. Raw materials for animal nutrition, assessment and formulation. Using food composition databases. Techniques for determining rations according to species and type of production.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

FOURTH YEAR

COURSE	DEONTOLOGY, LEGAL MEDICINE AND VETERINARY LEGISLATION			SIGA Code 1000130
Type Core	Year 4th	Period 2nd semester	Hours per week (lecture hours) 3	ECTS Credits 5.0
Course description	Ethical principles for professional veterinary practice. Application of practical cases in professional practice. Legislation concerning the regulation of the commercialisation and use of animals and animal products as well as the regulations affecting veterinary practice.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on acquired knowledge.			

COURSE	INFECTIOUS DISEASES			SIGA Code 1000125
Type Core	Year 4th	Period Annual	Hours per week (lecture hours) 4	ECTS Credits 13.5
Course description	Processes due to bacteria, fungi and viruses including epidemiology, pathogenics, clinical medicine, lesions, diagnosis, therapy, control and prevention. Zoonotic diseases. Applications in professional clinical practice. Sanitary implications.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	PARASITICAL DISEASES			SIGA Code 1000126
Type Core	Year 4th	Period Annual	Hours per week (lecture hours) 2	ECTS Credits 10.0
Course description	Protozoic diseases, helminthiasis and arthropodosis considering clinical, and epidemiological aspects, diagnosis, therapy, control and prevention and the repercussions on processes of production, public health, zoonotic diseases and the environment. Applications in professional clinical practice. Sanitary implications.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	ANAESTHESIOLOGY AND GENERAL SURGICAL PATHOLOGY			SIGA Code 1000129
Type Core	Year 4th	Period 1st semester	Hours per week (lecture hours) 3	ECTS Credits 6.0
Course description	Pathologies requiring a surgical solution. Basic surgical techniques including surgical restitution. Experimental surgery. Anaesthesiology. Pathologies affecting pets, equines and bovines that require a surgical solution including thoracic and abdominal surgery, surgical pathology of extremities (traumatology), ophthalmology, otorrinolaringology and podology.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	MEDICAL AND NUTRITIONAL PATHOLOGY			SIGA Code 1000128
Type Core	Year 4th	Period Annual	Hours per week (lecture hours) 3	ECTS Credits 13.0
Course description	Non-contagious and non-parasitic diseases in individuals and groups requiring hygienic-dietetic or drug treatment. Intra-hospital and outpatient clinical care. Application of current diagnostic methods in clinical veterinary practice.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	SPECIALISED PATHOLOGICAL ANATOMY			SIGA Code 1000127
Type Core	Year 4th	Period Annual	Hours per week (lecture hours) 2	ECTS Credits 7.0
Course description	Study of the pathological alteration of cells, tissues and organs. Introduction to applications in animal pathological anatomy.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

FIFTH YEAR

COURSE	SPECIALISED SURGICAL PATHOLOGY			SIGA Code 1000137
Type Core	Year 5th	Period 2nd semester	Hours per week (lecture hours) 3	ECTS Credits 7.5
Course description	Morbid processes that chiefly affect pets, equines and bovines and require a surgical solution including thoracic and abdominal surgery, surgical pathology of extremities (traumatology), ophthalmology, otorrinolaringology and podology.			
Methodology	Theoretical and practical classes.			
Assessment	Final exam and presentation of a clinical case.			

COURSE	FOOD HYGIENE, INSPECTION AND CONTROL			SIGA Code 1000131
Type Core	Year 5th	Period Annual	Hours per week (lecture hours) 3	ECTS Credits 14.0
Course description	Conditions that food of animal origin must fulfil. Hygiene in food and food-handling establishments. Personnel, product and processes hygiene. Measures from production to consumption aimed at obtaining innocuous and nutritional foods and guaranteeing good hygienic and commercial quality in compliance with current legislation on public health. The study of market animals, ante and post-mortem inspection as well as practical work in abattoirs and other installations for the control, processing, distribution and sale of foodstuffs: meats, meat products, milk, fish, eggs, honey, fruit and vegetables, wild mushrooms, etc.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	PREVENTIVE MEDICINE AND HEALTH			SIGA Code 1000136
Type Core	Year 5th	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 4.5
Course description	Bases for preparing sanitary programmes aimed at livestock exploitation profitability by increasing production, reducing losses and improving both parameters. Fundamentals of disease control and prevention. Study and specific applications to concrete cases of interest to veterinary science.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	OBSTETRICS AND REPRODUCTION			SIGA Code 1000132
Type Core	Year 5th	Period Annual	Hours per week (lecture hours) 3	ECTS Credits 11.0
Course description	Pre- and post-partum care, as well as medical or surgical response to problems that arise during labour in domestic and useful animals. Clinical physiopathology and technology of reproduction. The study and follow-up of the newborn. Infertility and sterility in males and barren females. Pathology of the newborn.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	ANIMAL BREEDING AND VETERINARY HYGIENE			SIGA Code 1000133
Type Core	Year 5th	Period Annual	Hours per week (lecture hours) 3	ECTS Credits 12.0
Course description	The coordination and application of diverse physiological and zotechnological knowledge for the exploitation of animals. Basic breeding techniques. Stockbreeding installations. Environmental hygiene. Application of integral principles for exploitation including biosanitary aspects.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	TOXICOLOGY			SIGA Code 1000134
Type Core	Year 5th	Period Annual	Hours per week (lecture hours) 2	ECTS Credits 8.0
Course description	Study of natural or synthetic agents that may cause acute or chronic intoxication: identification, mechanisms of action, clinical and experimental diagnosis of toxicity, knowledge of hazardous residues in food products and environmental contaminants. Toxicological and legal guidelines to ensure the innocuousness of drugs and additives. Applications to concrete cases of animal intoxication and their repercussion on ecosystems.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	VETERINARY MANAGEMENT			SIGA Code 1000135
Type Compulsory	Year 5th	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 5.0
Course description	Theory of livestock production and optimisation. Technical principles for managing stockbreeding exploitations and veterinary clinics. Decision-making and modelling of stockbreeding systems.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

OPTIONAL COURSES

COURSE	AQUACULTURE			SIGA Code 1000138
Type Optional	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	The aquatic environment, typology of aquatic ecosystems. Biology and ecology of populations of aquatic organisms of commercial interest. Production systems: extensive and intensive installations.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	BEHAVIOURAL ALTERATIONS IN DOMESTIC ANIMALS			SIGA Code 1000139
Type Optional	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Behavioural ontogenesis. Learning. Medical history. Aggression. Elimination disorders. Fears, phobias, anxiety and sterotypy. Miscellaneous disorders. Treatment and prevention.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	ANALYSIS AND ORGANISATION OF GENETIC CONTROLS			SIGA Code 1000140
Type Optional	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 1	ECTS Credits 3.5
Course description	Computerisation and analysis of genetic data. Organisation of productive controls. Data archives.			
Methodology	Resolution of practical cases.			
Assessment	Assessment of individual assignments.			

COURSE	APICULTURE			SIGA Code 1000141
Type Optional	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Biology of social insects. Anatomy and physiology of Apis Melifera. Biology of bee colonies. The natural cycle of the beehive. The beekeeper's calendar. Transhumance and pollination. Types of beehive products. Beekeeping healthcare. Beekeeping legislation.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	HISTORY OF VETERINARY MEDICINE			SIGA Code 1000142
Type Optional	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 3	ECTS Credits 3.5
Course description	The history and evolution of veterinary medicine, healthcare, production and bromatology.			
Methodology	Bibliographic research			
Assessment	Exam, monographic assignments, attendance to class and seminars.			

COURSE	INTRODUCTION TO THE HUMAN DIET			SIGA Code 1000143
Type Optional	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 3	ECTS Credits 3.5
Course description	Food for human consumption: general bromatological aspects. Processing of foods for human consumption: basic concepts and general description of the processes. The role of the veterinary practitioner in the human food chain.			
Methodology	Theoretical classes.			
Assessment	Class attendance and participation, class assignments.			

COURSE	EXTENSIVE STOCKBREEDING SYSTEMS			SIGA Code 1000144
Type Optional	Year 2nd	Period 2nd semester	Hours per week (lecture hours) 1	ECTS Credits 3.5
Course description	Study of extensive stockbreeding systems in Spain. Pastures, forage and livestock. Impact of the EU Common Agricultural Policy (CAP) and the reform of extensive stockbreeding systems.			
Methodology	Participatory classes and seminars.			
Assessment	Exam, monographic assignments, attendance to class and seminars.			

COURSE		SMALL ANIMAL APPLIED ANATOMY			SIGA Code
					1000145
Type	Year	Period	Hours per week (lecture hours)	ECTS Credits	
Optional	3rd, 4th or 5th	1st semester	2	3.5	
Course description	Anatomic principles of the useful bodily parts for the principal interventions on feline and canine species of interest to professional veterinary practice. The course focuses chiefly on live animals with the aid of dissection and complementary techniques such as radiology, ultrasound scans and endoscopy.				
Methodology	Theoretical and practical classes.				
Assessment	Exam on the theoretical and practical course content.				

COURSE		LARGE ANIMAL APPLIED ANATOMY			SIGA Code
					1000146
Type	Year	Period	Hours per week (lecture hours)	ECTS Credits	
Optional	3rd, 4th or 5th	2nd semester	3	3.5	
Course description	Anatomic principles of the useful bodily parts for the principal interventions on equine and bovine species of interest to professional veterinary practice. The course focuses chiefly on live animals with the aid of dissection and complementary techniques such as radiology, ultrasound scans and endoscopy.				
Methodology	Theoretical and practical classes.				
Assessment	Exam on the theoretical and practical course content.				

COURSE	VETERINARY ONCOLOGY			SIGA Code 1000155
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 1.5	ECTS Credits 3.5
Course description	Study of neoplastic diseases in animals, providing basic and comparative training in aspects related to epidemiology, macroscopic and microscopic diagnosis and prognosis in the principal domestic species.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	EQUINE CLINICAL MEDICINE			SIGA Code 1000149
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Medical illnesses in horses. Diagnostic methods in equine clinical medicine. Management and care of hospitalised equine.			
Methodology	Theoretical and practical classes.			
Assessment	Exam, assessment of class assignments and attendance.			

COURSE	LABORATORY ANIMALS			SIGA Code 1000151
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Study of the different laboratory animal species, their biology and management. Principal pathologies affecting these species. Designing animal housing facilities. Planning and development of experimental procedures. Ethical and legal issues.			
Methodology	Theoretical and practical classes.			
Assessment	Theoretical exam and assessment of practical sessions.			

COURSE	EXERCISE PHYSIOLOGY			SIGA Code 1000152
Type Optional	Year 3rd, 4th or 5th	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Methodology in exercise physiology. Energy bases. Muscle physiology. Nervous, humoral, haematological, cardiorespiratory, locomotor and thermoregulatory response to training and exercise. Training methods. Physiopathological aspects associated with exercise.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	EQUINE PODOLOGY			SIGA Code 1000156
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Structure of the equine hoof. Clinical examination. Horseshoes: types. Horseshoeing techniques. Influence of horseshoeing on horses used in sports.			
Methodology	Theoretical and practical classes.			
Assessment	Final exam and continuous assessment throughout the course.			

COURSE	TECHNICAL VETERINARY MANAGEMENT			SIGA Code 1000158
Type Optional	Year 3rd, 4th or 5th	Period 1st semester	Hours per week (lecture hours) 1	ECTS Credits 3.5
Course description	Gathering and analysing technical data in veterinary clinics and stockbreeding exploitations. Advanced cases in zootechnology: 1) Renovation of male and female breeding animals, 2) Optimal sizing of stockbreeding farms.			
Methodology	Theoretical and practical classes.			
Assessment	Continual assessment taking into account class attendance and participation.			

COURSE	THE FIGHTING BULL			SIGA Code 1000159
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 1	ECTS Credits 3.5
Course description	Breeding and management of fighting bulls. Exterior. Inspection. Economic assessment. Enhancement. Productive pathology.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	EQUINE TECHNOLOGY			SIGA Code 1000160
Type Optional	Year 3rd,4th or 5th	Period 2nd semester	Hours per week (lecture hours) 1	ECTS Credits 3.5
Course description	Equine breeding and management. Assessment and judgment systems. Economic assessment. Enhancement.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	ORGANIC LIVESTOCK AND AUTOCHTHONOUS BREEDS			SIGA Code 1000161
Type Optional	Year 3rd, 4th or 5th	Period 1st semester	Hours per week (lecture hours) 1	ECTS Credits 3.5
Course description	Introduction to the current model of livestock production as regulated and promoted by the European Union (Regulations 2092/91 y 1084/99) based on environmental sustainability, the use of breeds adapted to local conditions, high animal welfare standards and the protection of animal health.			
Methodology	Participatory classes and seminars.			
Assessment	Continual assessment taking into account class attendance and participation.			

COURSE	NEW TECHNOLOGIES FOR ANIMAL BREEDING			SIGA Code 1000162
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Transgenics in domestic species. Biotechnology and genetic resistance to disease. Cytogenetic techniques in biotechnology. Molecular genetic markers in animal breeding. Applied immunogenetics.			
Methodology	Lectures and laboratory practicals.			
Assessment	Continuous assessment or written exam.			

COURSE	ORGANISATION OF SELECTION SCHEMES			SIGA Code 1000163
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Organisation of genetic improvement in animals in EU countries, particularly in Spain. Official selection schemes for different species. Genealogy books and performance controls. Official regulations concerning selection schemes. Genetic improvement and improvement plans for breed selection and preservation.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			

COURSE	ALTERNATIVE LIVESTOCK BREEDING			SIGA Code 1000164
Type Optional	Year 3rd, 4th or 5th	Period 1st semester	Hours per week (lecture hours) 1	ECTS Credits 3.5
Course description	Breeding and exploitation of non-conventional livestock species. Analysis and assessment of breeding systems.			
Methodology	Methodology based on models of practical conduct.			
Assessment	Continuous assessment taking into account class attendance and participation.			

COURSE	ZOOTECNOLOGY PROJECTS			SIGA Code 1000165
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 1	ECTS Credits 3.5
Course description	Concept and doctrine concerning the harmonious integration of resources to achieve livestock objectives. Zootechnological bases for designing livestock facilities and equipment.			
Methodology	Theoretical and practical classes.			
Assessment	Continuous assessment taking into account class attendance and participation. Project.			

COURSE	LIVESTOCK WASTE			SIGA Code 1000166
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Study of the formation, characterisation and management of organic waste generated in livestock facilities, their assessment and impact on the rural environment and contaminant capacity in soils, surface water and aquifers. Related regulations and legislation.			
Methodology	Theoretical classes and field trips to farms and waste plants.			
Assessment	Students will be assessed based on a report to be prepared on a topic related to the course content.			

COURSE	ANIMAL FOODSTUFF MANUFACTURING AND CONSERVATION TECHNOLOGY			SIGA Code 1000167
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 1	ECTS Credits 3.5
Course description	Types of foodstuffs for animals. Technology of compound feed industries. Gross feed technology. Technology of canned foods and with containers. Quality and legislation concerning animal foodstuffs.			
Methodology	Theoretical and practical classes, seminars and conferences.			
Assessment	Exam, monographic assignments, attendance to class and seminars.			

COURSE	FOOD BIOCHEMISTRY AND ANALYSIS			SIGA Code 1000168
Type Optional	Year 3rd, 4th or 5th	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Components, composition, structure and properties of foodstuffs. Physical, chemical/biochemical and biological modifications during food processing. Physical, chemical and biochemical analysis.			
Methodology	Theoretical and practical classes.			
Assessment	Exam, monographic assignments, attendance to class and seminars.			

COURSE	MEAT SCIENCE AND TECHNOLOGY			SIGA Code 9820070
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Obtaining and manipulating meat. Preservation and processing of meats and meat products.			
Methodology	Theoretical and practical classes.			
Assessment	Exam, monographic assignments, attendance to class and seminars.			

COURSE	IMPLEMENTATION OF THE HACCP SYSTEM IN THE FOOD INDUSTRY			SIGA Code 1000170
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Introduction to the HACCP system. Theoretical principles. Practical application. Development of hazard analysis and attributes of critical control points. Study of the HACCP document. General and specific aspects of hygiene and general hygiene plans. Computer systems as a management tool in self-control systems.			
Methodology	Theoretical and practical classes.			
Assessment	Continuous assessment taking into account class attendance and participation and final exam.			

COURSE	DAIRY SCIENCE			SIGA Code 9820031
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Obtaining milk. Preservation of dairy products. Preservation of eggs.			
Methodology	Theoretical and practical classes.			
Assessment	Continuous assessment taking into account class attendance and participation and final exam.			

COURSE	FOOD MICROBIOLOGY			SIGA Code 1000172
Type Optional	Year 3rd, 4th or 5th	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Study of the aspects related to microorganisms in foods, their ecology, activity and significance in foodstuffs. Microbiological analysis of foodstuffs.			
Methodology	Theoretical and practical classes.			
Assessment	Continuous assessment.			

COURSE	XENOBIOTIC RESIDUES IN FOODSTUFFS OF ANIMAL ORIGIN			SIGA Code 1000173
Type Optional	Year 3rd, 4th or 5th	Period 2nd semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Impact of zoosanitary treatments, environmental contaminants and natural xenobiotics in foodstuffs of animal origin. Mechanisms that determine the formation, quantity and distribution of residues which are hazardous to consumer health. Toxicological repercussions on public health.			
Methodology	Theoretical and practical classes.			
Assessment	Theoretical exam and assessment of practical sessions.			

COURSE	FISH TECHNOLOGY			SIGA Code 9820033
Type Optional	Year 3rd, 4th or 5th	Period 1st semester	Hours per week (lecture hours) 2	ECTS Credits 3.5
Course description	Obtaining and manipulating fish. Processes for the elaboration of different fish products.			
Methodology	Theoretical and practical classes.			
Assessment	Exam on the theoretical and practical course content.			