Information about the subject

Degree: Bachelor of Science Degree in Veterinary Medicine

Faculty: Faculty of Veterinary Medicine and Experimental Sciences

Code: 1262510 **Name:** Quality management in the agri-food industry

Credits: 6,00 **ECTS Year:** The course is not offered this academic year **Semester:** 1

Module: Module of elective courses

Subject Matter: Feeding **Type:** Elective

Department: Animal Production and Public Health

Type of learning: Classroom-based learning

Languages in which it is taught:

Lecturer/-s:

Module organization

Module of elective courses

Subject Matter	ECTS	Subject	ECTS	Year/semester
Intensifications per animal group	24,00	Specialisation in Clinic of Wild and Exotic Animals	6,00	5/1
		Specialisation in the Equine Clinic	6,00	This elective is not offered in the academic year 25/26
		Specialisation in treatment of small animals	6,00	5/1
		Surgical pathology of the musculoskeletal system of small animals	6,00	5/1
Animal Reproduction and Production	30,00	Fighting bull	6,00	5/1
		Reproductive Technology	6,00	This elective is not offered in the academic year 25/26
		Specialisation in animal production	6,00	5/1
		Specialisation in animal research	6,00	This elective is not offered in the academic year 25/26
		Specialisation in aquaculture	6,00	This elective is not offered in the academic year 25/26

Feeding	12,00	Microbiology in Food	6,00	This elective is not offered in the academic year 25/26
		Quality management in the agri-food industry	6,00	This elective is not offered in the academic year 25/26

Recommended knowledge

It is recommended to have completed the subjects Food Technology I and II and HIgiene and food safety I and II.

Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

R1 Being able to write and elaborate a good self-control system based on the HACCP principles.

R2 Knowing how to interpret the different quality standards and the requirements demanded to carry out their implementation in an industry of the agri-food sector.

R3 Knowing well the sanitary hygienic conditions that must be met by the establishments that engage in any activity of the agri-food industry.

R4 Having a clear understanding of the main legislation applied in the agri-food industry and having the resources to locate the specific legislation for each sector.

Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC		Weighting			
		1	2	3	4
CB3	Capacity to gather and interpret relevant data usually within their specific field of study and capacity to make judgments that include reflection on relevant social, scientific or ethical issues.			x	
CB4	Capacity to communicate information, ideas, problems and solutions at specialist and non-specialist levels.				x
CB5	Capacity to develop those learning skills needed to undertake further studies with a high degree of autonomy.			x	

GENERAL		Weighting			
		1	2	3	4
CG0	Capacity to speak well in public.				x
CG5	Understanding and applying laws, regulations and administrative provisions in all areas of the veterinary profession and public health, understanding the ethical implications of health in a changing global context.				x
CG6	Developing professional practice, acquiring skills related to teamwork, with an efficient use of resources and quality management.				x

SPECIFIC		Weighting			
		1	2	3	4
E55	Knowing and applying food components and characteristics.				x
E56	Knowing and applying food collection, storage and processing.				x

E57	Knowing and applying food changes, alterations and adulterations.				x
E58	Knowing and applying health inspection criteria and regulations.				x
E59	Knowing and applying ante- and post-mortem veterinary inspection.				x
E60	Knowing and applying establishment and product inspection.				x
E61	Knowing and applying good hygienic practices and the hazard analysis critical control point system.				x
E62	Knowing and applying handling and treatment control.				x
E63	Knowing and applying food safety and public health rules.				x
E64	Knowing and applying food risk analysis: risk identification, management and communication.				x
E65	Knowing and applying research methods on outbreaks of food toxi-infections.				x
E66	Knowing and applying dynamics and demographics of infections and food poisonings.			x	

TRANSVERSAL		Weighting			
		1	2	3	4
T1	Capacity of analysis, synthesis, implementation of knowledge for problem-solving and decision-making.			x	
T2	Understanding and applying the scientific method to professional practice including evidence-based medicine.				x
T3	Basic knowledge of the veterinary profession: legal, economic, administrative, planning and time management issues and the veterinarians' society together with the importance of monitoring quality, standardization and protocols of veterinary practice.				x
T4	Mastering fluency in oral and written mother tongue communication, listening and responding effectively using a language appropriate to audience and context.			x	
T5	Knowledge of a second language, preferably English, especially technical vocabulary of veterinary science.		x		

T6	Using information technology to communicate, share, search for, collect, analyze and manage information, especially related to the veterinarian practice.				x
T7	Ability to adapt to new situations, self-critical ability, being aware of personal limitations and understanding when and where seeking and obtaining advice and professional help.				x
T8	Efficient and effective work, both independently and as a member of a multidisciplinary team or unit, showing respect, appreciation and sensitivity to the work of others.	x			
T9	Keeping an ethical behaviour in the exercise of given responsibilities toward the profession and society.	x			
T10	Ability to learn, to research, and to be aware of the need to keep knowledge updated, and attending training programs.			x	
T11	Ability to work in an international context, appreciating diversity and multiculturalism, through the knowledge of foreign cultures and customs.		x		

Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
	20,00%	Evaluation of the use of the practical lessons in the classroom, of problems or computer science, seminars and tutorials, by means of participation, computer-supported problem solving and the elaboration of the corresponding reports.
	40,00%	Evaluation of the practical laboratory work, which must demonstrate the competences acquired by the student and his or her ability to use them to solve the different situations and problems that arise in a laboratory; this assessment may consist of one of the following methods, or a combination of several of them: an individual written test, the individual or group performance of a laboratory experience, the delivery of an individual or group report on the work carried out in the laboratory.
	20,00%	Evaluation of group work through a system of continuous assessment throughout the course based on the delivery of assignments the objectives and content of which will be proposed by the teacher.
	20,00%	Evaluation of activities in which the student must do some research individually and structure information related to each of the topics through a system of continuous assessment throughout the course based on the delivery of papers, the objectives and contents of which will be proposed by the teacher.

Observations

MENTION OF DISTINCTION:
In accordance with the regulations governing the assessment and grading of subjects in force at UCV, the distinction of "Matrícula de Honor" (Honours with Distinction) may be awarded to students who have achieved a grade of 9.0 or higher. The number of "Matrículas de Honor" (Honours with Distinction) may not exceed five percent of the students enrolled in the group for the corresponding academic year, unless the number of enrolled students is fewer than 20, in which case a single "Matrícula de Honor" (Honours with 9 Distinction) may be awarded. Exceptionally, these distinctions may be assigned globally across different groups of the same subject. Nevertheless, the total number of distinctions awarded will be the same as if they were assigned by group, but they may be distributed among all students based on a common criterion, regardless of the group to which they belong. The criteria for awarding "Matrícula de Honor" (Honours with Distinction) will be determined according to the guidelines stipulated by the professor responsible for the course, as detailed in the "Observations" section of the evaluation system in the course guide.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

M1 On-site training activity aimed primarily at acquiring knowledge acquisition skills. It is characterised by the fact that students are spoken to. Also called master class or exposition, it refers to the oral presentation made by the teacher, (with the support of blackboard, a computer and a projector for the display of texts, graphs, etc.), in front of a group of students. They are expository, explanatory or demonstrative sessions of contents. The size of the group is determined by the limit or physical capacity of the classroom; therefore, it is a single group.

M2 On-site training activity aimed primarily at obtaining knowledge application and research skills. Knowledge is built through interaction and activities. The activity consists of supervised monographic sessions with shared participation (teachers, students, experts). The size of the group is variable, from one large group to various small groups, with a minimum of 6 students to ensure interaction. The evaluation will be based on follow-up records kept by the teacher. Participation and the development of the capacity to problematize should be taken into account.

M6 On-site training activity in groups carried out in the laboratory. It includes the sessions where the students develop laboratory experiments, make dissections or use the microscopes for the study of histological or histopathological samples actively and autonomously, under the supervision of the professor. It also includes work with healthy animals, objects, products, corpses (e.g., animal handling, bacteriological practices, physiology or biochemistry, meat inspection, etc.). It would correspond to the "Supervised practical non-clinical animal work" type e2 of the European evaluation of EAEVE. The size of the group is variable, in a range of 10 to 20 students.

M8 A set of on-site training activities carried out by the teacher to provide personalised attention to the student or in small groups with the aim of reviewing and discussing the materials and topics presented in classes, seminars, readings, carrying out projects, etc. The aim is to ensure a truly comprehensive education of the student rather than a mere transfer of information. It is, therefore, a personalized assistance relationship in which the tutor assists, facilitates and guides one or more students in the learning process.

M11 Autonomous training activities related to personal study, or the preparation of individual course assignments. The individual preparation of readings, essays, problem solving, papers, reports, etc. will be evaluated through presentations or submissions during theoretical classes, practical classes, seminars and/or tutorials. The evaluation of the submitted papers will consider the structure of the paper, the quality of the documentation, originality, spelling and presentation.

IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical lessons (TL) M1	R1, R2, R3, R4	37,50	1,50
Seminars (S) M1	R2, R3	12,50	0,50
In-Classroom Practice (ICP) M2, M6	R2, R3	62,50	2,50
Computer Practice (CoP) M2	R4	12,50	0,50
Laboratory Practice (LP) M6	R3	2,50	0,10
Tutorial M8	R1, R2, R3, R4	2,50	0,10
Evaluation (Ev) M11	R1, R2, R3, R4	5,00	0,20
TOTAL		**135,00**	**5,40**

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Group work M6	R2, R3, R4	7,50	0,30
Individual work M11	R1, R4	7,50	0,30
TOTAL		**15,00**	**0,60**

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
INTRODUCTION	1. Introduction to agrifood industry management systems 2. Sanitary hygienic conditions of the agri-food industry. Machinery used most frequently 3 Roles of the different agents involved in the implementation, monitoring, certification and verification of the correct application of quality management systems T 4 Certification and accreditation entities
COMPULSORY SELF-CONTROL SYSTEMS IN THE AGRO-FOOD INDUSTRIES	5 General Hygiene and Traceability Requirements (TMNG): requirements for different industries. 6. Hazard Analysis and Critical Control Points (HACCP): development of tables and identification of Critical Control Points (CCP) and Operational Hygiene Requirements (RHO)
QUALITY STANDARDS	7. ISO Standards: UNE-EN ISO 9001: 2015, UNE-EN ISO 22000: 2005, FSSC 22000 Scheme 8. International Featured Standards (IFS) 9. BRC Global Standards 10. Global.G.A.P.

Temporary organization of learning:

Block of content	Number of sessions	Hours
INTRODUCTION	5,00	10,00
COMPULSORY SELF-CONTROL SYSTEMS IN THE AGRO-FOOD INDUSTRIES	32,50	65,00
QUALITY STANDARDS	30,00	60,00

References

Eduardo Montes, Irene LLoret y Miguel Ángel López. (2009) Diseño y gestión de cocinas. manual de higiene alimentaria y aplicada al sector de la restauración. Díaz de Santos
Couto, I. (2008) Auditoría del Sistema APPCC. Como verificar los sistemas de gestión de inocuidad alimentaria HACCP. Díaz de Santos
Mortimore, S. HACCP. (2001) Enfoque práctico. Acribia
Norma UNE-EN ISO 9001. Sistemas de gestión de la calidad. Requisitos
Norma UNE-EN ISO 22000. Sistemas de gestión de la inocuidad de los alimentos. Requisitos para cualquier organización en la cadena alimentaria
IFS Norma para auditor la seguridad y calidad de los productos alimenticios
BRC estándar para la seguridad alimentaria
GLOBAL G.A.P.
OMS: http://www.who.int/fsf
Codex Alimentarius: http://www.codexalimentarius.net
Autoridad Europea de Seguridad Alimentaria: http://www.efsa.eu.int
Agencia Española de Consumo, Seguridad Alimentaria y Nutrición: http://www.aecosan.msssi.gob.es/AECOSAN/web/home/aecosan_inicio.htm
Dirección General de Salud Pública de Valencia: https://www.sp.san.gva.es/
European Comssion about Health and Food Safety: http://ec.europa.eu/dgs/health_food-safety/index_en.htm
Boletín Oficial del Estado: https://www.boe.es/diario_boe/
Diario Oficial de la Unión europea: http://eur-lex.europa.eu/oj/direct-access.html?locale=es
Federación de Asociaciones de celíacos de España (FACE): http://www.celiacos.org/
Asociación Española de Alérgicos a Alimentos y al Látex (AEPNAA): http://www.aepnaa.org/
MAPAMA: http://www.mapama.gob.es/es/ministerio/servicios/empleo-publico/