UNIVERSIDAD DE CASTILLA - LA MANCHA

GUÍA DOCENTE

1. General information

Course: ALCOHOLIC AND NON-ALCOHOLIC BEVERAGES
Code: 58333
Type: ELECTIVE
ECTS credits: 6
Degree: 383 - UNDERGRADUATE DEGREE PROGRAMME IN FOOD SCIENCE AND TECHNOLOGY
Academic year: 2023-24
Center: 1 - FACULTY OF SCIENCE AND CHEMICAL TECHNOLOGY
Group(s): 22
Year: 4
Duration: C2
Main language: Spanish
Second language:
Use of additional languages:
English Friendly: Y
Web site:
Bilingual: N

Lecturer: **MARIA ALMUDENA SORIANO PEREZ** - Group(s): **22**

Building/Office	Department	Phone number	Email	Office hours
Marie Curie	Q. ANALÍTICA Y TGIA. ALIMENTOS	926 051925	almudena.soriano@uclm.es	Monday 10:00-14:00 Tuesday 9:00-11:00 Specific changes will be communicated through the Virtual Secretariat. Special needs: write email to teacher

Lecturer: **MARÍA CRISTINA UTRILLA LUCAS** - Group(s): **22**

Building/Office	Department	Phone number	Email	Office hours
Marie Curie. Planta 1	Q. ANALÍTICA Y TGIA. ALIMENTOS		MariaC.Utrilla@uclm.es	Mondey 17:00-18:00h Tuesday 18:00-20:00h

2. Pre-Requisites

It is recommended that the student have general knowledge about food: chemical composition, sensory properties, microbiology and technology.

Therefore, it is convenient that the student has passed the first three years of the Degree.

3. Justification in the curriculum, relation to other subjects and to the profession

The subject is included in Food Industries II. Student will enhance their knowledge about the Beverage Industry. In particular, to know the manufacturing process, the chemical and nutritional composition, the sensory characteristics and the quality control in the main beverages existing in the market (fruit juices, soft drinks, alcoholic beverages obtained by fermentation and / or distillation, water)

4. Degree competences achieved in this course

Course competences

Code	Description
CB03	Be able to gather and process relevant information (usually within their subject area) to give opinions, including reflections on relevant social, scientific or ethical issues.
CB04	Transmit information, ideas, problems and solutions for both specialist and non-specialist audiences.
CB05	Have developed the necessary learning abilities to carry on studying autonomously
E05	To know the composition, phyco-chemical properties, nutritional value and sensory properties of foods
E06	To know and be able to handle the techniques and procedures of food analysis
E09	To know, optimize and control the production and conservation food processes
E11	To qualify to be able to evaluate the effects of processing on the components and properties of foods
E13	To know the organoleptic properties of foods and be able to apply methodology and techniques of sensory analysis
G07	To possess ability of organization and planning, initiative, entrepreneurship and aptitude to be employed in teamworks. To possess capacity of resolution of specific problems of the professional area and to develop the critical reasoning and decision making.
G09	To develop the motivation for quality, the capacity to adapt to new situations and the creativity.

5. Objectives or Learning Outcomes

Course learning outcomes

Description

To know the strategies of utilization of the by-products of the industries of derivatives of cereals and drinks.

To know the official methodology of analysis and quality control applied to the cereals and derivatives and alcoholic and non alcoholic drinks.

To be capable of establishing mechanisms that assure the quality of the products during their production, storage and transportation.

To advance in the physico-chemical, nutritional and functional properties of meat, dairy, wine, fats and oils products.

6. Units / Contents

Unit 1: Introduction

Unit 2: Water

Unit 3: Fruit juices

Unit 4: Soft drinks

Unit 5: Beer

Unit 6: Cider

Unit 7: Sake
Unit 8: Spirit drinks
Unit 9: Whisky
Unit 10: Rum
Unit 11: Brandy
Unit 12: Tequila
Unit 13: Vodka and Gin
Unit 14: Liquors

ADDITIONAL COMMENTS, REMARKS

THEORY CONTENTS:

They are divided into three blocks:

Block I: Non-alcoholic beverages (Units 2-4)

Block II: Fermented alcoholic beverages (Units 5-7)

Block III: Distilled alcoholic beverages (Units 8-14)

PRACTICAL CONTENTS:

1. Practices in pilot plant:

• brewing

• liquor production

2. Sensory analysis:

• tasting of different types of beer

• tasting of distilled drinks

7. Activities, Units/Modules and Methodology

Training Activity	Methodology	Related Competences (only degrees before RD 822/2021)	ECTS	Hours	As	Com	Description
Class Attendance (theory) [ON-SITE]	Lectures		1.43	35.75	Y	N	
Laboratory practice or sessions [ON-SITE]	Practical or hands-on activities		0.7	17.5	Y	Y	
Practicum and practical activities report writing or preparation [OFF-SITE]	Group Work		0.16	4	Y	Y	
Writing of reports or projects [OFF-SITE]	Guided or supervised work		0.2	5	Y	N	
Project or Topic Presentations [ON-SITE]	Workshops and Seminars		0.05	1.25	Y	N	
Group tutoring sessions [ON-SITE]	Group tutoring sessions		0.1	2.5	N	-	
Final test [ON-SITE]	Assessment tests		0.12	3	Y	Y	
Study and Exam Preparation [OFF-SITE]	Self-study		3.24	81	Y	N	
		Total:	**6**	**150**			
		Total credits of in-class work: 2.4					**Total class time hours: 60**
		Total credits of out of class work: 3.6					**Total hours of out of class work: 90**

As: Assessable training activity
Com: Training activity of compulsory overcoming (It will be essential to overcome both continuous and non-continuous assessment).

8. Evaluation criteria and Grading System

Evaluation System	Continuous assessment	Non-continuous evaluation*	Description
Theoretical papers assessment	15.00%	15.00%	Theoretical papers will be evaluated taking into account the contents of the written report presented, and the oral presentation made by the student of the work.
Final test	70.00%	70.00%	Theory teaching will be evaluated by a written exam in the ordinary and extraordinary official calls.
Practicum and practical activities reports assessment	15.00%	15.00%	Practical contents will be evaluated by a written exam in the ordinary and extraordinary official calls. The quality of the practice report will be taken into account
Total:	**100.00%**	**100.00%**	

According to art. 4 of the UCLM Student Evaluation Regulations, it must be provided to students who cannot regularly attend face-to-face training activities the passing of the subject, having the right (art. 12.2) to be globally graded, in 2 annual calls per subject , an ordinary and an extraordinary one (evaluating 100% of the competences).

Evaluation criteria for the final exam:

Continuous assessment:

A minimum score of 4/10 must be obtained in the theory and practical exams.
To pass the course, a minimum of 5/10 must be obtained in all the evaluations of each evaluable activity.

Non-continuous evaluation:

Students who cannot follow the continuous assessment may request, at the beginning of the semester, to take the non-continuous assessment mode. In this case, they must deliver the theorical papers, without being obliged to do an oral presentation.

Specifications for the resit/retake exam:

There will be two exams: theory and practice.
To pass, the same criteria described in continuous assessment will be followed.

Specifications for the second resit / retake exam:

There will be a final exam that will allow the evaluation of all competences.

9. Assignments, course calendar and important dates

Not related to the syllabus/contents	
Hours	**hours**

10. Bibliography and Sources

Author(s)	Title/Link	Publishing house	Citv	ISBN	Year	Description
Ashurst, P.R.	Producción y envasado de zumos y bebidas de frutas sin gas	Acribia		84-200-0869-9	1998	
Baxter, E. Denise	Cerveza : Calidad, higiene y características nutricionales	Acribia		84-200-1021-9	2003	
Hornsey, Ian S.	Elaboración de cerveza : microbiología, bioquímica y tecnol	Acribia		84-200-0967-9	2002	
Hough, James	Biotecnología de la cerveza y de la malta	Acribia		84-200-0681-5	1990	
Kunze, Wolfgang	Tecnología para cerveceros y malteros	VLB Berlin		3-921690-54-4	2006	
Madrid, A.	Elaboración de bebidas alcohólicas de alta graduación /	AMV ediciones,		978-84-941980-6-9	2014	
Varnam, Alan H.	Bebidas : tecnología, química y microbiología	Acribia		84-200-0826-5	1996	