1. OVERVIEW

Subject Area	Kitchen and Culinary Technology
Degree	Bachelor's Degree in Human Nutrition and Dietetics
School/Faculty	School of Biomedical and Health Sciences
Year	Fourth
ECTS	3 ECTS
Type	Compulsory
Language(s)	Spanish
Delivery Mode	On campus and blended
Semester	Semester 7
Coordinating professor	Dr Sara Sanz Rojo

2. INTRODUCTION

'Kitchen and Culinary Technology' is an optional subject area in Module 2 (Nutrition, Dietetics and Health Sciences), is worth 3 ECTS credits and is delivered in the first semester of the fourth year of the Bachelor's Degree in Human Nutrition and Dietetics.

Culinary technology relates to the technological processes involved in the culinary preparation of cooked dishes to be eaten as meals as part of the human diet. The overall objective of the subject area 'Kitchen and Culinary Technology' is for students to acquire knowledge of the processes that occur in the kitchen, to allow them to understand and assess changes to food when it undergoes such processes. This will ensure students have the tools to allow them to use and recommend culinary resources to provide a personal, tailored diet plan for healthy and unwell people.

3. SKILLS AND LEARNING OUTCOMES

Key skills (CB, by the acronym in Spanish):

- CB2: Students can apply their knowledge to their work professionally and possess the necessary skills, usually demonstrated by forming and defending opinions, as well as resolving problems within their study area.
- CB3: Students have the ability to gather and interpret relevant data (usually within their study area) to form opinions which include reflecting on relevant social, scientific or ethical matters.
- CB4: Students can communicate information, ideas, problems and solutions to both specialist and non-specialist audiences.

General skills (CG, by the acronym in Spanish):

- CG8: Identify and classify foods and food products. Know how to analyse and determine their composition, properties, nutritional value, the bioavailability of their nutrients, organoleptic properties and the modifications they undergo as a result of technology and the cooking process.
- CG9: Be familiar with the basic processes involved in the production, processing and preservation of both animal and plant-based foods.

Cross-curricular skills (CT, by the acronym in Spanish):

- CT3: Teamwork: ability to integrate and collaborate actively with other people, areas and/or organisations to reach common goals, evaluate and integrate contributions from the rest of the group members and create a good working environment.
- CT4: Adaptability: ability to detect, interpret and respond to a changing environment. Ability to equip themselves and work effectively in different situations and/or with different groups or individuals. This means adapting to change depending on circumstances or needs. It involves the confidence to take on crucial challenges on a personal or group level, maintaining good physical and mental health to allow effective work to be carried out.
- CT9: Ability to put knowledge into practice, using the skills acquired in the classroom to mock situations based on real life experiences that occur in the relevant profession.

Specific skills (CE, by the acronym in Spanish):

- CE50: Know about different cooking processes.
- CE51: Know about cooking methods with and without the use of heat.
- CE52: Be aware of and use cooking techniques to prepare food and how they may be personalised for the diet of healthy and unwell people.
- CE55: Know how food is modified by cooking processes. Considerations for diet planning.

Learning outcomes (RA, by the acronym in Spanish):

- RA1: Be aware of the main cooking techniques used today.
- RA2: Know the modifications that foodstuffs undergo as a result of technology and the cooking process.

The following table shows how the skills developed in the subject area match up with the intended learning outcomes:

Skills	Learning outcomes
CB2, CB4, CG8, CG9, CT9, CE50, CE51	**RA1:** Be aware of the main cooking techniques used today.
CB3, CB4, CG8, CT3, CT4, CE52, CE55	**RA2:** Know the modifications that foodstuffs undergo as a result of technology and the cooking process.

4. CONTENTS

Unit 1. Introduction to the Kitchen and Culinary Technology

- Topic 1. Concept and purpose of cooking technology. Cooking at home and cooking within the food industry.

- Topic 2. Modern catering and kitchen spaces. **Unit 2. Methods and Processes in Culinary Technology**
- Topic 3. Cooking methods at room temperature.
- Topic 4. Cooking methods using heat.

Unit 3. Quality in the Kitchen and Culinary Technology According to Special Requirements

- Topic 5. Types of quality and standards in culinary technology.
- Topic 6. Cooking techniques in diet therapy.

5. TEACHING/LEARNING METHODS

The types of teaching/learning methods are as follows:

- Lectures
- Case studies
- Collaborative learning
- Problem-based learning
- Simulated environments
- Spoken presentations by students

6. LEARNING ACTIVITIES

The types of learning activities, plus the amount of time spent on each activity, are as follows:

On campus:

Learning activity	Number of hours
Lecture	15h
Independent working	12.5 h
Case studies	10h
Debates and discussions	6h
Spoken presentations by students	5h
Written reports and essays	4 h
Lab work	9h
Tutorials	10h
Knowledge test	3 h
TOTAL	**74.5 h**

Blended:

Learning activity	Number of hours
Reading of content	7.5
Online seminars	7.5
Independent working	12.5
Case studies	9
Debates and discussions	10
Spoken presentations by students	6
Written reports and essays	5
Lab work	10
Online tutorials	4
Knowledge test	3.5
TOTAL	**75h**

7. ASSESSMENT

The assessment methods, together with their respective weighting towards the final grade for the subject, are as follows:

On-campus and blended learning:

Assessment method	Weighting
Analysis of case studies and problem-solving	20%
Submission of reports	10%
Spoken presentation	5%
Participation in debates	5%
Laboratory work	20%
Knowledge test	40%

On the Virtual Campus, when you open the subject area, you can see all the details of your assessment activities, including the deadlines and assessment procedures for each activity.

8. BIBLIOGRAPHY

The recommended bibliography is indicated below:

- Bello Gutiérrez, José (1998). Ciencia y tecnología culinaria. Madrid: Díaz de Santos.
- C. Fisher, Thoma R. Scott (2000). Flavores de los alimentos: Biología y química. Acribia
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- Harold McGee (2008). La cocina y los alimentos. Debate.
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- M.P. Arvy, Francois Gallouin (2006). Especias, aromatizantes y condimentos. Mundi-Prensa
- Martínez Hernández, J. Alfredo (2004). Alimentación hospitalaria. Díaz de Santos
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- Montes, Eduardo; Lloret, Irene; López, Miguel A. (2019). Diseño y gestión de cocinas. Madrid: Díaz de Santos, Tercera edición.
- Pérez Conesa, Joaquín (1998). Cocinar con una pizca de ciencia, procesos culinarios. Murcia: IJK editores.
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