

## 1. OVERVIEW

<b>Subject Area</b>	Clinical Nutrition and Hospital Dietetics
<b>Degree</b>	Bachelor's Degree in Human Nutrition and Dietetics
<b>School/Faculty</b>	School of Biomedical and Health Sciences
<b>Year</b>	3rd year
<b>ECTS</b>	3 ECTS
<b>Type</b>	Compulsory
<b>Language(s)</b>	Spanish
<b>Delivery Mode</b>	On-campus and blended
<b>Semester</b>	Semester 6
<b>Coordinating professor</b>	Dr Ángela Patricia Morales Cerchiaro

## 2. INTRODUCTION

Compulsory subject area within the module 'Nutrition, Dietetics and Health Sciences', delivered over one semester in the third year. The subject area of Clinical Nutrition and Dietetics is worth 6 ECTS credits. The overall objectives of the subject area are:

- Learn about the organisation of hospitals and the different phases of the food service.
- Work as part of a team on a hospital nutrition unit.
- Be familiar with the nutritional needs and dietary treatment of people with medical conditions.
- Know the different techniques and products used for basic and advanced nutritional support.

## 3. SKILLS AND LEARNING OUTCOMES

### Key Skills (CB, by the acronym in Spanish)

- **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)

- **CG16:** Interpret a nutritional diagnosis, assess the nutritional aspects of a patient's medical record and implement a diet plan.

- **CG17:** Be familiar with the structure of food services and hospital food/nutrition units, identifying and carrying out the functions of a dietician/nutritionist as part of a multidisciplinary team.
- **CG18:** Participate in the organisation, management and implementation of different methods of feeding patients and providing nutritional support in hospitals, as well as of outpatient dietary/nutritional treatment.

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

- **CT1** Communication: ability to engage in active listening, ask questions and respond in a clear and concise way, as well as to effectively express ideas and concepts. This includes concise and clear written communication.
- **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.
- **CT7:** Decision making: ability to choose between different options or methods to effectively solve different problems or situations.
- **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)

- **CE90:** Know how to complete a nutritional status assessment in situations of health and illness. Objective and subjective Methods.
- **CE91:** Become familiar with clinical nutrition and evidence-based nutrition.
- **CE93:** Know the general characteristics of enteral and parenteral nutrition.
- **CE94:** Know the different health conditions and disorders related to nutrition: Obesity, digestive disorders, cancer, diabetes, food allergies and intolerances.

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

- RA1: Know the nutritional requirements of someone who is ill.
- RA2: Know how to perform a personal nutrition assessment and complete reports based on the assessment.
- RA3: Be able to work as part of a team on a hospital nutrition unit.
- RA4: Know the different techniques and products used for basic and advanced nutritional support.
- RA5: Be familiar with the organisation of hospitals and the different phases of the food service.

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

Skills	Learning outcomes
CB3, CB4, CT7, CT9, CE92, CE94	RA1: Know the nutritional requirements of someone who is ill.
CB3, CB4, CG16, CT1, CT7, CT9, CE90, CE92, CE94	RA2: Know how to perform a personal nutrition assessment and complete reports based on the assessment.
CB3, CB4, CG17, CG16, CT1, CT3, CT7, CT9, CE92	RA3: Be able to work as part of a team on a hospital nutrition unit.
CB3, CB4, CG18, CT7, CT9, CE92, CE93	RA4: Know the different techniques and products used for basic and advanced nutritional support.
CB3, CB4, CG17, CT3, CE92	RA5: Be familiar with the organisation of hospitals and the different phases of the food service.

## 4. CONTENTS

### Unit 1. Introduction to Community Nutrition

- **Topic 1.** Organisation and structure of a hospital nutrition unit.
- **Topic 2.** Nutritional status assessment. Medical and dietary record.
- **Topic 3.** Malnutrition, causes and classification. Hospital malnutrition, prevalence in Spanish hospitals, causes and consequences. Adaptation and modification.

### Unit 2. Diabetes and Obesity

- **Topic 4.** Description and types of diabetes. Nutritional treatment for inpatients.
- **Topic 5.** Childhood overweight and obesity: definition, classification and treatment.

### Unit 3. Digestive Disorders

- **Topic 6.** Mouth, oesophagus and gastric disorders.
- **Topic 7.** Main gut disorders.
- **Topic 8.** Hepatobiliary and pancreatic disease.

### Unit 4. Food Allergies and Intolerances

- **Topic 9.** Introduction. Types of food allergy/intolerance.
- **Topic 10.** Patient management regarding food allergies and intolerances in hospital settings.

#### Unit 4. Nutrition for Cancer Patients

- **Topic 11.** The role of food in the prevention and risk of cancer.
- **Topic 12.** Main side effects of cancer and their treatment.
- **Topic 13.** Nutritional treatment of cancer patients.

#### Unit 6. Enteral and Parenteral Nutrition

- **Topic 14.** Basic concepts. Indications and differences between enteral and parenteral nutrition. Algorithms for choosing the type of nutrition.
- **Topic 15.** Enteral nutrition: Objectives. Planning: Tube types and placement; formulas and patient monitoring.
- **Topic 16:** Parenteral nutrition: Objectives. Planning. Patient monitoring.

## 5. TEACHING/LEARNING METHODS

The types of teaching/learning methods are as follows:

- Lectures
- Problem-based and project-based learning
- Collaborative learning
- Case studies
- Learning based on workshops/labs

## 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	50
Independent working	25.5
Case studies	10.5
Group activities	10.5
Written reports and strategies	10.5
Workshops and/or lab work	18
Tutorials	18
Knowledge test	5
<b>TOTAL</b>	<b>150</b>

### Blended learning

Learning activity	Number of hours
Reading of content	13h
Online seminars	13 h
Case studies	10.5 h
Workshops and/or lab work	19 h
Group activities	10 h
Online tutorials	19 h
Independent working	49 h
Written reports and strategies	10.5 h
Knowledge test	5h

## 7. ASSESSMENT

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

### On campus:

Assessment method	Weight (%)
<b>Activity 1:</b> Submission of reports and essays	10%
<b>Activity 2:</b> Laboratory work	20%
<b>Activity 3:</b> Participation in debates	10%
<b>Activity 4:</b> Performance observation	10%
<b>Activity 5:</b> Knowledge test	50%

### Blended:

Assessment method	Weight (%)
<b>Activity 1:</b> Submission of reports and essays	10%
<b>Activity 2:</b> Laboratory work	20%
<b>Activity 3:</b> Participation in debates	10%
<b>Activity 4:</b> Performance observation	10%
<b>Activity 5:</b> Knowledge test	50%

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 reference works for the subject area are as follows:

- Coordinado por JI Ulibarri. Ed: A. García de Lorenzo; P. P. García Luna; P. Marsé; M. Planas. Libro Blanco de la Desnutrición Clínica en España. Acción Médica, Madrid, 2004.
- Gil A, Gil Campos M, Maldonado Lozano J, Martínez de Victoria Muñoz E. Tratado de nutrición. Tomo 5, capítulos 25-30. Madrid: Médica Panamericana; 2017.

The additional recommended bibliography is as follows:

- Salas Salvado J. Nutrición y Dietética Clínica. 3ª Edición. Barcelona: Ed. Masson; 2014.
- Pérez-Flores JE, Chávez-Tostado M, Larios-Del-Toro YE, García-Rentería J, Rendrón-Félix J, Salazar-Parra M et al. Evaluación del estado nutricional al ingreso hospitalario y su asociación con la morbilidad y mortalidad en pacientes mexicanos. Nutr Hosp. 2016 Jul 19;33(4):386.
- Torresani ME, Somoza MI. Lineamientos para el cuidado nutricional. Ed. Eudeba; 2010.
- Martínez Hernández JA. Alimentación hospitalaria. Tomos I. Fundamentos Ed. Díaz de Santos; 2004.
- Cuervo Zapatel M, Ruiz de las Heras A, Tomo II. Dietas Hospitalarias. Ed. Díaz de Santos; 2004.

A specific bibliography will be provided for each of the topics covered in this subject area. These will be available to download and read on the virtual campus.