

**COURSE DATA****DATA SUBJECT****Code:** 34110**Name:** Clinical Nutrition**Cycle:** Undergraduate Studies**ECTS Credits:** 4.5**Academic year:** 2026-27**STUDY (S)**

Degree	Center	Acad. year	Period
1201 - Degree in Pharmacy	Facultat de Farmàcia i Ciències de l'alimentació	3	Second quarter

**SUBJECT-MATTER**

Degree	Subject-matter	Character
1201 - Degree in Pharmacy	Human feeding	COMPULSORY

**COORDINATION**

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**SUMMARY**

Dietary Therapy course is a compulsory subject taught in the second half in the third year of the Pharmacy degree. In the existing curriculum (2009 Plan) consists of a total of 4.5 credits (1 credit ECTS = 25 h). This course is part, along with "Nutrition and Food Science" of the subject "Human nutrition", taught in the module of Medicine and Pharmacology. This course aims to the pupil to dominate the incidence of nutrition in different diseases and/or physiopathological situations. It must also be able to develop dietary guidelines for hospital and outpatient treatment, as well as to develop plans for nutritional care for various diseases. Finally, it will be tracked and dietary control of the patient. As professionals in the area of Health Sciences, graduates not may escape in their future professional employment of these concepts of huge news.

**PREVIOUS KNOWLEDGE****RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE**

There are no specified enrollment restrictions with other subjects of the curriculum.

**OTHER REQUIREMENTS**



The study of the subject of "Dietary Therapy" is based on the practical implementation of many of the knowledge gained in courses in the first cycle "Physiology", "Anatomy", "Biochemistry" and "Pathophysiology", "Nutrition and Food Science".

## COMPETENCES / LEARNING OUTCOMES

### 1201 - Degree in Pharmacy

Acquire the necessary knowledge to assess the suitability of food for consumption.

Act with autonomy in learning, making informed decisions in different contexts, issuing judgements based on experimentation and analysis, and transferring knowledge to new situations.

Apply such knowledge to the professional world, contributing to the development of human rights, democratic principles, principles of equality between women and men, solidarity, environmental protection and promotion of a culture of peace with a gender pe

Apply the scientific method and acquire skills in handling legislation, information sources, bibliography, drafting of protocols and other aspects considered necessary for the design and critical evaluation of preclinical and clinical trials.

Collaborate effectively in work teams, assuming responsibilities and leadership roles and contributing to collective improvement and development.

Contribute to the design, development and implementation of solutions that respond to social demands, taking into account the Sustainable Development Goals as a reference.

Demonstrate critical and self-critical thinking in the field of the degree programme, considering aspects such as professional ethics, moral values and the social implications of the different activities carried out.

Develop communication and information skills, both oral and written, to deal with patients and other health professionals in the centre where professional activity is carried out. Promote teamwork and collaboration skills in multidisciplinary teams and wi

Develop skills to update knowledge and undertake further studies, including pharmaceutical specialisation, scientific research, technological development and teaching.

Know and apply basic bromatological analyses to assess the composition and nutritional value of the different food groups that form part of the normal diet.

Know and manage the basic terminology of nutrition, bromatology, dietetics and diet therapy.

Know and understand, within the field of the degree programme, gender inequalities in society; integrate different needs and preferences based on sex and gender into the design of solutions and problem solving.

Know how to communicate effectively, both orally and in writing, adapting to the characteristics of the situation and the audience.

Know how to interpret, evaluate and communicate relevant data in the different areas of pharmaceutical activity, using information and communication technologies.



Know nutrients and other components of nutritional interest, as well as sources, recommendations and health implications of their deficiencies and/or excesses.

Module: Medicine and Pharmacology. Acquire the necessary skills to provide therapeutic advice in pharmacotherapy and diet therapy, as well as nutritional and dietary advice to users of the establishments where service is provided.

Module: Medicine and Pharmacology. Understand the relationship between diet and health, and the importance of diet in the treatment and prevention of diseases.

Possess and understand knowledge in the different areas of study included in pharmacist training.

Propose creative and innovative solutions to complex situations or problems within the field of knowledge, to respond to diverse professional and social needs.

Recognise one's own limitations and the need to maintain and update professional competence, placing particular emphasis on self-learning of new knowledge based on available scientific evidence.

Transmit ideas, analyse problems and solve them with critical spirit, acquiring teamwork skills and assuming leadership when appropriate.

Understand the relationship between food and health and the importance of diet in the treatment and prevention of disease, considering gender biases.

## DESCRIPTION OF CONTENTS

### 1. Introduction

1.1. Relationship between diet and disease. Objectives of diet therapy. Types of therapeutic diets and factors to be considered in its elaboration.

1.2. Artificial nutrition. Enteral and parenteral nutrition. Objectives, indications and features.

1.3. Diet prior to certain diagnostic tests. Tests and indications. Applicable dietary modifications and precautions.

### 2. Modified diets

In this unit explore various modifications of the diet both in its composition and in its texture. How to act through the diet to treat illnesses and/or improve the quality of life of patients

2.1. Diets with modified texture: types. Nutritional objectives. Indications, contraindications and adverse effects. Features. Practical aspects of its implementation. Progressive diets.

2.2. Diet poor and rich in fiber. Objectives and directions. Preparation, characteristics and precautions. Adverse effects and contraindications. Astringent diets.

2.3. High protein and energy diet: dietary goals and main indications. Characteristics and realization of the diet.



2.4. Low-protein diet for kidney patients. Nutritional objectives. Characteristics of the diet in each clinical situation.

2.5. Controlled mineral diet. Features and realization. Dietary recommendations.

2.6. Food allergy diet. Types, characteristics and prevalence of food hypersensitivity. False allergies. Clinical manifestations. Most frequently involved foods. Prevention and dietetic treatment.

2.7. Diet on food intolerances. Controlled in lactose, fructose, sucrose and galactose diets. Gluten-free diet. Indications, nutritional objectives and characteristics of the diet.

### **3. Metabolic syndrome**

This unit considers the dietary treatment of metabolic diseases of higher prevalence.

3.1. Metabolic syndrome

3.2. Diet of patients with overweight and/or obesity. Low-calorie diets. Types. Nutritional objectives. Characteristics and development. Indications, precautions and adverse effects. Education and practical recommendations for the control of body weight.

3.3. The diet of the diabetic patient: objectives and characteristics depending on the type of diabetes and the prescribed medical treatment. Nutritional education. Follow-up and monitoring of patients in various situations.

3.4. Diet of the patient with dyslipidemia. Types, possibilities of treatment and associated pathology. Influence of the components of the diet on lipid profile. General and specific recommendations.

3.5. Diet of the hypertensive patient. Diet with low sodium. Nutritional goals and directions. Characteristics of the diet. Adverse nutritional goals and directions. Characteristics of the diet. Adverse effects and contraindications. Nutritional education of the hypertensive patient.

### **4. Laboratory class**

4.1. Classification and Clinical Application of Foods for Special Medical Purposes.

4.2. Design of diets from medical prescriptions.

4.3. Calculation of dietary iron intake and its bioavailability.

4.4. Evaluation of nutritional status through anthropometric measures.

4.5. Evaluation of nutritional status through biochemical analysis.

**WORKLOAD****PRESENCIAL ACTIVITIES**

Activity	Hours
Tutorials	2,00
Theory	23,00
Seminar	4,00
Laboratory	8,00
Computer classroom practice	8,00
<b>Total hours</b>	<b>45,00</b>

**NON PRESENCIAL ACTIVITIES**

Activity	Hours
Attendance at other activities	0,00
Individual or group project	12,50
Independent study and work	42,50
Preparation of lessons	9,50
Preparation for assessment activities	0,00
Resolution of case studies	3,00
<b>Total hours</b>	<b>67,50</b>

**TEACHING METHODOLOGY**

The development of the course is structured in:

**Theory classes:** Master class will basically be used in theory classes. The teacher will present the most relevant content on the subject, using audiovisual media necessary for quick and consistent development of the same. The teacher will leave accessible in advance on the platform of teaching "Virtual Classroom", the necessary material support for proper follow-up of theory classes. The theoretical classes enable notably the acquisition of knowledge, and to a lesser extent contribute to the acquisition of procedures and attitudes. The Professor will monitor the assistance to them.

**Practical laboratory sessions:** are compulsory. Carried out in four sessions of 4 hours (2 in the laboratory and 2 to the computer room). During the session will have to make a script of the "Notebook of practices" sessions, with a short theoretical introduction of them and the detailed protocol. During each session students will have to fill the practice workbook, including the mathematical calculations needed to obtain the results and the final solution. The notebook of practices will be delivered during the week following the completion of the practices and will be corrected by the teacher. The most representative calculations made previously by the student in their time of study will be reviewed during classes. Practical classes contribute primarily to the acquisition of skills, and to a lesser extent to the attitudes and knowledge.

**Seminars:** Seminars are compulsory attendance. They must be prepared in groups of 4 or 5 students, each of which will present a topic to be held during the seminar (oral presentation and written work). The exhibitions will be held in days of seminars. Concerning the seminar dates and deadlines appear published on Virtual Classroom of the subject in advance. The work shall be submitted in electronic format and on paper guardian and shall consist of the following documents:



- a) Written work with a bibliography.
- b) Oral presentation. The work will be publicly showcased during the seminars. At the end it will engage a discussion involving all participants in the seminar.

Seminars can also be held with current scientific articles related to the subject, completing the tasks requested on them.

The assessment of this activity will cover both the scientific contents treated as the way in which they have been submitted, particularly assessing the ability of communication and transmission of ideas and concepts, as well as the ability to join a working group.

**Tutorials:** Attendance is compulsory. The duration of these tutorials will be 1 hour. In them, the Professor will evaluate the learning process of students in a global manner and guide students on the methods of work more useful for the resolution of problems that might arise. Equally, the tutorials will serve to resolve all doubts that have been able to arise over the theoretical and practical classes.

The contents of the course will be related to the Sustainable Development Goals (SDG). This is intended to provide the student with knowledge, skills and motivation to understand and address these SDGs, while promoting reflection and critical.

## EVALUATION

The evaluation of learning of the knowledge, competitions and skills will be carried out along the course. There will be considered to be parameters evaluables: a) theoretical-practical final written test in which there will be evaluated the grade of general knowledge of theoretical concepts and procedures presented for every topic; b) achievement of individual and/or collective memoirs of exercises relative to the different activities in classroom, in that ad will evaluate the acquisition of skills and definite attitudes *ad hoc* for the matter; c) preparation and participation in seminars: written work and exhibition (the scientific content of the work will be evaluated, and the capacity of exhibition and debate with the teachers and partners; d) other tasks proposed along the course, whose(which) achievement he(she) will announce the students to himself with enough advance.

The activities of continuous assessment, which in this subject are practices, tutorials and seminars, are of MANDATORY ATTENDANCE and, therefore, NOT RECOVERABLE, in accordance with the provisions of Article 6.5 of the Regulation of Evaluation and Qualification of the UV for Bachelor and Master degrees. If it is not possible to attend any of these activities for justified reasons, it must be communicated in advance. In this way, the person in charge of the subject may assign the student a session in another group.

**Evaluation of the theoretical contents through theoretical questions of the final exam:** the result of this evaluation will represent **6.5 points** from the final grade for the course.

**Evaluation of the practical lab classes:** the qualification obtained in this evaluation will represent **2.0 points** of the final grade for the course. Practical classes will be assessed through realization of practical issues in



the final exam.

**Evaluation of tutoring and tasks:** the evaluation of this section will represent **0.5 points**. In this qualification will take into account the resolution of the tasks proposed, different laboratory practices and seminars and tutoring assistance.

**Evaluation of the seminars:** the seminar held will contribute a maximum of **1.0 point** to the final note of this subject. You will be assessed the work performed, both the scientific content of the work, like the work of preparation of the same and the ability to expose it in public and discuss it with the teacher and classmates, as well as its integration into the group.

**To pass the course**, it is necessary to have earned a minimum overall score of 5 out of 10 in the **the final exam**.

**In the case of suspending the course in second call**, laboratory practices must not repeat them during the two following years.

**In the first call** they will be qualified as **not presented**:

1 ° The students who were not submitted to the written theory examination, but who have participated and have note somewhere/s of activities (seminars, laboratory, computer science tutorials,...).

2° Students who were not submitted to the written theory exam or have participated or retrieved note in the rest of the activities of the course.

**In the second call** will be rated as **not presented**, only the students that were not submitted to the written theory exam or have participated or retrieved note in the rest of the activities of the course. Instead, which is presented to the theory test but have a score of other kinds of activities, they will be qualified as **suspense**.

In exceptional circumstances, the assessment may be carried out orally.

Evidence of copying or plagiarism in any of the assessable tasks will result in failure to pass the subject and in appropriate disciplinary action being taken. Please note that, in accordance with article 13. d) of the Statute of the University Student (RD 1791/2010, of 30 December), it is the duty of students to refrain from using or participating in dishonest means in assessment tests, assignments or university official documents.

In the event of fraudulent practices, the "Action Protocol for fraudulent practices at the University of Valencia" will be applied (ACGUV 123/2020): <https://www.uv.es/sgeneral/Protocols/C83sp.pdf>

## REFERENCES



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- Soriano JM. Nutrición básica humana. Universitat de València 2006.
- Gibney, M.J.; Elia, M.; Ljungqvist, O.; Dowset, J. Nutrición Clínica. Acribia. Zaragoza. 2007.
- Mahan K, Escott-Stump S, Raymond JL. Krause's food & the nutrition care process (13ª ed.) Mc Graw- Hill Interamericana. 2011.
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