



Information about the subject

Degree: Bachelor of Science Degree in Human Nutrition and Dietetics

Faculty: Faculty of Medicine and Health Sciences

Code: 1310401 **Name:** Dietotherapy

Credits: 6,00 **ECTS Year:** 4 **Semester:** 1

Module: Nutritional, Dietetic and Health Sciences Module

Subject Matter: Pathology and Therapy **Type:** Compulsory

Field of knowledge: Health Sciences

Department: Nutrition

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

1314A Sandra Carrera Julia (Responsible Lecturer)

sandra.carrera@ucv.es

131CAF5 Sandra Carrera Julia (Responsible Lecturer)

sandra.carrera@ucv.es



Module organization

Nutritional, Dietetic and Health Sciences Module

Subject Matter	ECTS	Subject	ECTS	Year/semester
Ethics and professional deontology	6,00	Social Morality. Deontological ethics	6,00	4/1
Dietetics	6,00	Dietetics	6,00	2/2
Fundamentals of Nutrition	18,00	Human Nutrition	6,00	2/1
		Nutrition in the Different Life Stages	6,00	3/1
		Parenteral and Hospital Nutrition	6,00	3/2
Pathology and Therapy	24,00	Dietotherapy	6,00	4/1
		Nutritional Pathology	6,00	3/2
		Pharmacology Applied to Nutrition	6,00	3/1
		Physiopathology	6,00	2/2
Documentation	6,00	Documentation and Research Techniques	6,00	4/1

Recommended knowledge

Previous knowledge of nutritional pathology, pathophysiology and dietetics is recommended.



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 Understands and assimilates the concepts included in the course content.
- R2 Shows ability to solve problems related to these contents using different resources.
- R3 Understands and presents data.
- R4 Collaborates with the teacher and colleagues throughout the learning process: Attendance to theoretical, practical or tutoring sessions; teamwork; respect in the treatment; compliance with the rules of organization of the subject for the benefit of all.



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
CB2	Students know how to apply their knowledge to their work or vocation in a professional way and possess the skills that are usually demonstrated through the elaboration and defense of arguments and the resolution of problems within their area of study.				X
CB3	Students have the ability to gather and interpret relevant data (usually within their area of study) to make judgements that include reflection on relevant social, scientific or ethical issues.				X

GENERAL		Weighting			
		1	2	3	4
CG13	Students integrate and evaluate the relationship between food and nutrition in health conditions and pathological situations.				X
CG14	Students apply scientific knowledge of physiology, physiopathology, nutrition and feeding to the planning and dietary advice in individuals and collectivities, along the life cycle, both healthy and sick.				X
CG26	Students elaborate, control and cooperate in the planning of menus and diets adapted to the characteristics of the collective to which they are destined.				X

SPECIFIC		Weighting			
		1	2	3	4
CE14	Students interpret and manage the databases and tables of food composition.		X		
CE25	Students apply Food and Nutrition Sciences to dietary practice.		X		



CE27	Students evaluate and calculate the nutritional requirements in health and disease situations at any stage of the life cycle.				X
CE29	To participate in the design of total diet studies.			X	
CE30	To know, detect early and evaluate the deviations by excess or defect, quantitative and qualitative, of the nutritional balance.				X
CE31	Students plan, carry out and interpret the evaluation of the nutritional status of subjects and/or groups, both healthy (in all physiological situations) and sick.				X
CE32	To know the physiopathological aspects of nutrition-related diseases.			X	
CE33	To identify the dietary and nutritional problems of the patient, as well as the risk factors and inadequate practices.			X	
CE35	Interpret and integrate clinical, biochemical and pharmacological data in the nutritional assessment of the patient and in his dietetic-nutritional treatment. Apply the bases of clinical nutrition to dietetic therapy.				X
CE36	Apply the bases of clinical nutrition to dietetic therapy.				X
CE37	Plan, implement and evaluate therapeutic diets for subjects and/or groups.				X
CE42	Plan and carry out programs of dietetic-nutritional education in healthy and sick subjects			X	
CE43	Understand clinical pharmacology and drug-nutrient interactions		X		
CE44	Students manage the basic tools in ICT, used in the field of Food, Nutrition and Dietetics.		X		
CE46	Prescribe the specific treatment, corresponding to the scope of competence of the dietitian-nutritionist.				X



Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R1, R4	5,00%	Evaluation of the use of the practical classes in the classroom, of problems or computers, seminars and tutorials. Through attendance, and participation in the different activities proposed.
R1, R2, R3	65,00%	Written evaluation of the knowledge and skills obtained. The test may consist of a series of open-ended or multiple-choice questions on the theoretical content of the subject and/or practical exercises (problem solving).
R2, R3, R4	15,00%	Assessment of practical laboratory work, or laboratory culinary techniques workshop, through which the competencies acquired must be demonstrated and that they are capable of being used to solve the different situations and problems that arise in a laboratory; this assessment may be carried out by 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 submission of an individual or group report on the work carried out in the laboratory
R2, R3, R4	15,00%	Evaluation of individual or group practices or activities, in which information related to each of the subjects must be sought and structured, and cases or problems resolved. This is done through a system of continuous evaluation throughout the course, which involves the delivery and / or exposure of work, whose objectives and content will be proposed by the teacher.

Observations

In the written evaluation of the knowledge and skills obtained, a minimum score of 5 out of 10 is required in order to be averaged with the rest of the evaluation instruments. This written evaluation



consists of test-type questions and a clinical case with related questions.

During the course, activities will be continuously evaluated through the resolution of clinical cases related to different topics taught in the subject. In addition, through the resolution of an activity derived from the seminar of the subject. The delivery of all these activities is mandatory.

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 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 Exposition of contents by the teacher, analysis of competencies, explanation and demonstration of capacities, skills and knowledge in the classroom. The blackboard, the computer and the cannon will be used to display texts, graphics, etc.
- M2 Resolution of practical exercises and case studies, analysis of evaluation procedures and procedural intervention. All this with the support of the teacher. This aspect can be controlled through attendance and active participation in the practical sessions.
- M3 Resolution of practical exercises and case studies, analysis of evaluation procedures and procedural intervention. All this with the support of the teacher. This aspect can be controlled through attendance and active participation in the practical sessions.
- M4 Monographic sessions throughout the course, oriented towards current aspects and applications of the subject.
- M5 Student study: individual preparation of readings, essays, problem solving, seminars, papers, reports, etc. for discussion or delivery in electronic format.



- M7 Personalised attention and in small groups. Period of instruction and/or orientation carried out by a tutor with the aim of reviewing and discussing the materials and topics presented in the classes, seminars, readings, completion of assignments, etc. The attendance of the student and his/her level of gradual development in the knowledge of the subjects will be evaluated.
- M8 A set of tests, written or oral, used in the evaluation of the student.
- M9 Group preparation of readings, essays, problem solving, seminars, papers, reports, etc... for discussion or delivery.



IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical lessons M1	R1, R2, R3	46,00	1,84
Practice lessons M2	R1, R2, R3, R4	4,00	0,16
Laboratory M5	R1, R2, R3, R4	4,00	0,16
Seminar M4	R1, R4	2,00	0,08
Office Hours M7	R1, R4	2,00	0,08
Evaluation M8	R1, R2, R3	2,00	0,08
TOTAL		60,00	2,40

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Autonomous work M5	R1, R2, R3, R4	60,00	2,40
Group work M9	R1, R2, R3, R4	30,00	1,20
TOTAL		90,00	3,60



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block

Contents

BLOCK 1: BASIS OF DIET THERAPY

Unit 1: Bases of diet therapy

- Importance of diet in relation to health
- Concept of diet therapy
- Objective and applicability of diet therapy

Unit 2: Guidelines in the assessment, preparation and monitoring of a dietary prescription

- Definition and objectives of a dietary prescription
- Aspects of clinical assessment
 - Assessment of nutritional needs and dietary habits
 - Intervention
 - Monitoring and evaluation



BLOCK 2: NUTRITIONAL STRATEGIES IN DIFFERENT PATHOLOGIES

Unit 3: Nutritional strategy in obesity

-Criteria of therapeutic intervention in the treatment of obesity according to its degree

Unit 4: Nutritional strategy in dyslipidemia and cardiovascular diseases

-Relation between alterations in lipid metabolism and cardiovascular diseases

-Dyslipidemia: definition, classification and physiopathology

-Influence of nutrients on the lipid profile

-Diet in dyslipidemia

-Cardiovascular diseases: definition and influence of diet

-Hypertension: characteristics of the low sodium diet

-Arteriosclerosis

- Ischemic heart disease

-Heart failure

Unit 5: Nutritional strategy in diabetes

-Characteristics of the diet in diabetes

Unit 6: Nutritional Strategy in the Metabolic Syndrome

-Characteristics of the diet in the Metabolic Syndrome

Unit 7: Nutritional support in other metabolic diseases

- Amino acid metabolism disorder: pathophysiology and characteristics of the diet

-Diet diet in: hyperphenylalaninurias, phenylketonuria, homocystinuria, metabolism disorders of methionine, deficiency of cystathionine β -synthetase.

- Fatty acid metabolism disorder: pathophysiology and characteristics of the diet

-Controlled diet in long chain fatty acids

-Controlled diet in medium chain fatty acids

-Hyperuricemia and gout: physiopathology and characteristics of the diet

Unit 8: Nutritional strategy in osteoporosis and rheumatic diseases

-Diet management in osteoporosis and rheumatic diseases

Unit 9: Nutritional strategy in thyroid diseases

-Diet management in thyroid diseases

Unit 10: Nutritional strategy in diseases of the digestive system

-Diet management in the main diseases of the digestive system

Unit 11: Nutritional strategy in liver, pancreatic and



biliary diseases

-Diagnostic management in: hepatic, pancreatic and biliary pathology

Unit 12: Nutritional strategy in kidney disease

-Diet management in chronic and acute renal failure

Unit 13: Nutritional strategy in diseases of the respiratory system

- Relationship between nutrition and pulmonary system

-Chronic Obstructive Pulmonary Disease (COPD): definition, pathophysiology and characteristics of diet

Unit 14: Nutritional Strategy in Eating Disorders (TCA)

-Diagnostic management in TCA: Anorexia Nervosa, Bulimia Nervosa

Unit 15: Nutritional strategy in metabolic stress diseases

-Cancer: definition, pathophysiology and characteristics of the diet

-AIDS: definition, pathophysiology and characteristics of the diet

-Hypermetabolism and protein-energy malnutrition: definition, pathophysiology and characteristics of the diet

Unit 16: Nutritional strategy in neurodegenerative diseases

-Dietary management in the main neurodegenerative diseases

Unit 17: Nutritional strategy in bariatric surgery

-Indications of bariatric surgery

-Surgical techniques

-Preparation of the patient for bariatric surgery

-Diet management after bariatric surgery

Unit 18: Nutritional strategy in lymphedema and lipedema

-Lymphedema and Lipedema: definition, pathophysiology and dietary management

Unit 19: Nutritional strategies in taste and salivation disorders

-Alterations of taste: ageusia, hypogeusia, dysgeusia

-Salivation of salivation: sialorrhea, hyposialia, asialia, xerostomia



BLOCK 3: SPECIFIC DIETS

Unit 20: Food intolerances and adverse reactions

- Celiac Disease
- Controlled diet in lactose
- Controlled diet in fructose and sorbitol
- Controlled diet in sucrose
- Controlled diet in galactose

Unit 21: Diets controlled in waste

- Diet rich in waste, astringent diet

SEMINAR

Seminar in class.

PRACTICAL LESSONS

Practical lessons.

Temporary organization of learning:

Block of content	Number of sessions	Hours
BLOCK 1: BASIS OF DIET THERAPY	2,00	4,00
BLOCK 2: NUTRITIONAL STRATEGIES IN DIFFERENT PATHOLOGIES	17,00	34,00
BLOCK 3: SPECIFIC DIETS	6,00	12,00
SEMINAR	1,00	2,00
PRACTICAL LESSONS	4,00	8,00



References

BASIC BIBLIOGRAPHY

- Alpers, D., Stenson, W., Taylor, B., & Bier, D. (2008). *Manual of Nutritional Therapeutics*. (5^o Ed.). Philadelphia, United States: Wolters Kluwer.
- Cuervo, M., & Ruiz de las Heras, A. (2004). Hospital supply. 2. Hospital Diets. (1st Ed.). Madrid, Spain: Díaz de Santos.
- De Luis, D.A., Bellido, D., García, PP., Oliveira, F. *Diet therapy, clinical nutrition and metabolism*. (2017). (3^o Ed). Toledo, España: Aula Médica Formación en Salud
- Escott-Stump, S. (2005). *Nutrition, diagnosis and treatment*. (5^o Ed.). México: McGraw-Hill, Interamericana.
- Gil, A. (2017). *Nutrition Treaty. Volume V. Nutrition and disease*. (3^o Ed.). Madrid, España: Panamericana.
- Jáuregui, I. (2016). *Manual of Nutritional Pathology of the Adult for Dieticians and Nutritionists*. (1st Ed.). Toledo, Spain: Grupo Aula Médica.
- Kathleen, L., Escott-Stump, S., & Raymond J.L. (2013). *Krause Diet therapy*. (13^o Ed.). Barcelona, Spain: Elsevier.
- Mataix, J. (2002). *Nutrition and Human Feeding. Physiological and pathological situations*. Madrid, Spain: Ergon.
- Planas, M., & Pérez, C. (2006). *Pathophysiology applied to nutrition*. (2^o Ed.). Barcelona, Spain: Mayo.
- Rodotà, P.L. & Castro, M.E. (2019). *Clinical Nutrition and Diet Therapy*. (2^o Ed.). Editorial Médica Panamericana.
- Rodriguez-Pozo, A. (2017). *Introduction to clinical nutrition and dietetics*. Editorial Universitat de Lleida.
- Salas-Salvadó, J. (2014). *Nutrition and clinical dietetics*. Editorial Elsevier Masson.
- Savino-Lloreda, P., Posada-Álvarez, C., & Lopez-Daza, D. (2019). *Applied nutrition in chronic pathologies*. CELAN. Centro Latinoamericano de nutrición.



Shils, M.E. (2002). *Nutrition in health and disease*. (9^o Ed.). Vol I. México. McGraw-Hill, Interamericana.

Shils, M.E. (2002). *Nutrition in health and disease*. (9th Ed.). Vol II. Mexico. McGraw-Hill, Interamericana.

Vidal, E. (2009). *Practical manual of nutrition and diet therapy*. (1st Ed.). A Coruña, Spain: Monsa Prayma.

COMPLEMENTARY BIBLIOGRAPHY

Bellido, D., & De Luis, D.A. (2006). *Manual de nutrición y metabolismo*. Madrid, España: Díaz de Santos.

Campillo, J.E. (2007). *El mono obeso*. (2^o Ed.). Barcelona, España: Drakontos Bolsillo.

Casanueva, E., Kaufer, M., Pérez, A.B., & Arroyo, P. (2015). *Nutriología médica*. (4^o Ed.). México: McGraw-Hill, Interamericana.

González Svatetz, C.A. (2016). *Nutrición y cáncer. Lo que la ciencia nos enseña*. (1^o Ed.). Madrid, España: Editorial Médica Panamericana.

Hernández, F. (2012). *Que tus alimentos sean tu medicina. El poder terapéutico de la alimentación inteligente*. Barcelona, España: RBA Integral.

Herrero, G., & Andrades, C. (2019). *Psiconutrición. Aprende a tener una relación saludable con la comida*. (4^o Ed.). Arcopress ediciones.

Jiménez, L. (2014). *El cerebro obeso*. (1^o Ed.). CreateSpace Independent Publishing Platform.

Matarese, L.E., & Gottschlich, M.M. (2004). *Nutrición Clínica Práctica*. (2^o Ed.). Madrid, España: Elsevier.

Ortega, R. (2015). *Nutriguía. Manual de Nutrición Clínica*. (2^o Ed.). Madrid, España: Editorial Médica Panamericana.

Rodota, L.P., & Castro, M.E. (2019). *Nutrición Clínica y Dietoterapia*. (2^o Ed.). Madrid, España: Editorial Médica Panamericana.

Ruiz de las Heras, A., & Martínez, J.A. (2010). *Elementos de dietoterapia*. (1^o Ed.). Pamplona, Navarra (España). Editorial: Eunsa. Astrolabio. Salud.



JOURNALS IN SPANISH

Endocrinología, diabetes y nutrición
Nereis. Revista iberoamericana interdisciplinar de métodos, modelización y simulación
Nutrición Clínica y Dietética Hospitalaria
Nutrición Hospitalaria
Revista de la Sociedad Valenciana de Patología Digestiva
Revista Española de Nutrición Humana y Dietética
Revista Española de Obesidad
Revista Española de Nutrición Comunitaria
Terapeía. Estudios y propuestas en Ciencias de la Salud.

JOURNALS IN ENGLISH

Advances in nutrition
American Journal of Clinical Nutrition
Annual Review of nutrition
British journal of nutrition
Canadian Journal of dietetic practice and research
Clinical Nutrition
Critical reviews in food science and nutrition
European journal of clinical nutrition
Frontiers in Nutrition
International Journal of Behavioral Nutrition and Physical Activity
International Journal of Food Science and Nutrition
Journal of eating disorders
Journal of Human Nutrition and Dietetics
Journal of nutrition
Journal of nutrition biochemistry
Journal of renal nutrition
Nature
Nutrients
Nutrition and Diabetes
Nutrition in clinical practices
Nutrition & Metabolism
Nutrition, Metabolism and Cardiovascular Diseases
Nutritional Neuroscience
Nutrition Research reviews
Nutrition reviews
Obesity Journal
Proceedings of the Nutrition Society
The Lancet



Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

Microsoft Teams

Kaltura



Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

Microsoft Teams

Kaltura

Explanation about the practical sessions:



2. System for Assessing the Acquisition of the competences and Assessment System

ONSITE WORK

Regarding the Assessment Tools:

The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.

The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

Comments to the Assessment System: