

Nutrition

Code: 106099
ECTS Credits: 6

2025/2026

Degree	Type	Year
Nursing	FB	1

Contact

Name: Monica Amado Sanjuan

Email: monica.amado@uab.cat

Teachers

Jose Rodriguez Alvarez

Montserrat Solé Piñol

Jose Manuel Lopez Blanco

Victor Jose Yuste Mateos

Maria Antonia Baltrons Soler

Alfredo Jesús Miñano Molina

Jordi Puig Pla

Teaching groups languages

You can view this information at the [end](#) of this document.

Prerequisites

Non aplicable

Objectives and Contextualisation

This course aims to provide the necessary knowledge of biochemistry and nutrition in order to help people manage the need to eat by consensus and agree on a balanced diet or therapeutic diet that they need according to the health situation, age, gender, social and cultural factors.

The knowledge of this subject is built on the bases provided by the Structure of the Human Body, Function of the Human Body, Ethical and Methodological Bases of Nursing and Culture, Society and Health. The theoretical contents of this subject are taught during the second semester of the first academic year.

At the same time, this subject serves as a theoretical basis for other subjects of higher courses such as: Pharmacology, Nursing Care in Adults I and II, Nursing Care in the Process of Aging, Nursing Care in Childhood, Adolescence and Women and Nursing Care in Complex Situations.

Competences

- Offer technical and professional health care and that this adequate for the health needs of the person being attended, in accordance with the current state of scientific knowledge at any time and levels of quality and safety established under the applicable legal and deontological rules.
- Protect the health and welfare of people or groups attended guaranteeing their safety.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Take sex- or gender-based inequalities into consideration when operating within one's own area of knowledge.

Learning Outcomes

1. Analyse differences by sex and gender inequality in ethiology, anatomy, physiology. Pathologies, differential diagnosis, therapeutic options, pharmacological response, prognosis and nursing care.
2. Describe the nutritional needs of healthy people and those with health problems throughout the life cycle, to promote and reinforce the steps to take for healthy eating behaviour.
3. Design diets appropriate for healthy people and those with the most common health problems.
4. Identify the most common nutritional problems and select the appropriate diet recommendations.
5. Identify the most frequent problems that occur when people with health problems do not follow the planned therapeutic diet, proposing effective interventions to get them to do so.
6. Recognise the nutrients and food products which contain or allow the nutritional requirements of healthy people and those with health problems.
7. Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.

Content

The content of the subject is taught by teachers from the nursing and biochemistry departments of the Faculty of Medicine. The subject is coordinated by Mònica Amado Sanjuan from the Nursing Department.

Unit I. Energy and nutrients

- Structure and properties of nutrients. General requirements and recommendations
- Simple and complex carbohydrates. Vegetal fiber
- Lipids: saturated and unsaturated fats; essential lipids
- Proteins and amino acids
- vitamins
- Minerals and trace elements
- Water

Unit II. Macronutrients metabolism

- Introduction to the metabolism and homeostasis of energy
- Digestion, absorption and metabolism of nutrients

- Carbohydrates
- Lipids. Transport of lipids in the blood
- Proteins and other nitrogen compounds. Nitrogenous balance
- Metabolic interrelationships between tissues in the fasting-feeding cycle

Unit III. Assessment of nutritional status

- Anthropometry. Body mass index, waist and hip perimeters, skin folds
- Vegetable fiber
- Homeostasis of energy
- Biochemistry of energy transfers
- Energy expenditure
- Individual energy requirements
- Caloric value of nutrients

Unit IV. Food groups: composition, characteristics and importance for health

- Foods rich in carbohydrates and fibre: Group of cereals, tubers and pulses. Group of fruits, vegetables and vegetables
- Foods rich in protein and lipids: Milk group and derivatives. Group of meats, fish and eggs
- Other foods: Miscellaneous group: alcohol, additives, pollutants

Unit V. Nutritional balance

- Characteristics of nutritional balance.
- The need for healthy eating at every stage of life. Biological, psychological, social and cultural factors that influence eating behavior.
- Food composition tables. Food rations. Eating behavior. Feeding assessment.
- Oral, enteral and parenteral route. Dysphagia
- Nutritional Assessment scales.

Unit VI. Therapeutic diets

- Introduction to diet therapy.
- Diet characteristics. Assessment, Problems identification. Objectives formulation. Propose and justify educational interventions for the assisted person and the family. Prepare the diet with the person. Carrying out a diet. Problems of the performance of therapeutic diets. Evaluation. Continuity of care of the person served to maintain adherence to the diet.
- The need for food for people with more prevalent and/or high impact health problems.
- Oral, enteral and parenteral route. Dysphagia.
- Food handling and regulation: most prevalent problems

Activities and Methodology

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
SEMINARIES (SEM)	25	1	1, 2, 5, 3, 4, 7, 6
THEORY (TH)	24.5	0.98	2, 5, 3, 4, 7, 6
Type: Supervised			
TUTORIES	1	0.04	1, 2, 5, 3, 4, 7, 6
Type: Autonomous			
COURSEWORKS/PERSONAL STUDY/ RESEARCH REVIEWS	95	3.8	1, 2, 5, 3, 4, 7, 6

THEORY AND SEMINARS

The content of module I, II and III and IV is taught by professors from the Biochemistry department through participative theoretical classes and, in parallel, case discussion seminars are held in order to mobilize the necessary knowledge according to each case.

The content of modules V and VI is taught by the Nursing Department through participatory theory classes and seminars that work on balanced diets and therapeutic diets.

Recording sessions, taking photos, or disseminating any theoretical or seminar content is prohibited without the faculty's permission.

TUTORIES

Individualized tutorials can be arranged by previously contacting the teachers through the Virtual Campus.

For Biochemistry tutoring, contact Professor José Manule López Blanco.

For Dietetics tutoring, contact Professors Caterina Checa and/or Mònica Amado.

USE OF AI:

Restricted use:

For this subject, the use of Artificial Intelligence (AI) technologies is permitted exclusively in support tasks, such as bibliographic or information searches, text correction or translations, infographics, concept map design, etc. The student must clearly identify which parts have been generated with this technology, specify the tools used and include a critical reflection on how these have influenced the process and the final result of the activity.

The lack of transparency in the use of AI in this assessable activity will be considered a lack of academic honesty and may lead to a partial or total penalty in the grade of the activity, or greater sanctions in serious cases.

Single Assessment:

This subject/module does not provide for the single assessment system.

Annotation: Within the schedule set by the centre or degree programme, 15 minutes of one class will be reserved for students to evaluate their lecturers and their courses or modules through questionnaires.

Assessment

Continous Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
EVALUATION THROUGH CASES RESOLUTION (SEMINARS)	15%	1.2	0.05	1, 2, 5, 3, 4, 7, 6
EVALUATION THROUGH OBJECTIVE TESTS	10%	0.5	0.02	1, 2, 5, 3, 4, 7, 6
EVALUATION THROUGH OBJECTIVE TESTS	25%	1.5	0.06	1, 2, 5, 3, 4, 7, 6
EVALUATION THROUGH OBJECTIVE TESTS	50%	1.3	0.05	1, 2, 5, 3, 4, 7, 6

CONTINUOUS ASSESSMENT CRITERIA:

The average grade for the course will be calculated from the grades obtained in four assessable activities:

Exam 1, which assesses the theory and seminar of Unit 1. This consists of a written exam using objective multiple-choice item tests and/or objective essay tests, which can represent 10% of the final grade. The continuous assessment grade will only be considered when it is higher than the grade for Exam 2 and, therefore, can be used to increase the final grade. The person responsible for this section will be responsible for the entire assessment process.

Exam 2, which assesses all the theory and seminars of Units I, II, III, and IV, and which can represent 50% of the final grade. The person responsible for this section will be responsible for the entire assessment process. Exam 3, which assesses Units V and VI. It consists of a written exam using objective multiple-choice items and/or objective essay tests, with a total weight of 20% of the final grade. The person responsible for this section will be responsible for the entire assessment process.

Five diet seminars (group work, information search, and presentation of PPTs with classmates), with a total weight of 15% of the final grade. Attendance is mandatory for all five seminars, as assessments for each will be conducted at the same time. Non-attendance, whether justified or unjustified, for two seminars will be considered as NOT ASSESSABLE.

Once the seminars have begun, changing groups or subgroups is not permitted.

Late submission of seminar assignments will be penalized in the final grade.

PASSING REQUIREMENTS:

To pass the continuous assessment course, the final grade resulting from the corresponding percentages applied to exams 1 and 2 must be equal to or greater than 5.0 out of 10. Likewise, the final grade for exam 3 must be equal to or greater than 5.0 out of 10.

To pass the diet seminars, the student must obtain a grade equal to or greater than 5.0 out of 10.

The final grade will be calculated using the following formula:

Final grade calculation: Exam 1 grade (or make-up exam) (10%) + Exam 2 grade (or make-up exam) (50%) + Exam 3 grade (or make-up exam) (25%) + Diet seminar grade (15%).

MAKE-UP TEST:

Students who do not obtain a grade equal to or higher than 5.0 after applying the corresponding percentages in Exams 1 and 2 may make up this part of the course (Topics I, II, III, and IV) in an exam that will represent 60% of their grade. Students who do not obtain a grade equal to or higher than 5.0 in Exam 3 may make up this part of the course in a make-up exam. Make-up exams will consist of objective tests with multiple-choice items and/or essay tests of the failed part(s).

Students who do not appear for Exams 2 and 3, or the make-up exam, and miss two or more seminars will be considered NOT ASSESSABLE.

Students who fail both parts of the subject will take a final exam where the first part (topics I-IV) represents 60% of the grade while the second part of the exam represents 25% of the grade of the theoretical exam. If students pass the objective test with a 5.0 or higher, the average will be made with the seminars (15%).

When the student does not present sufficient evidence of evaluation, this subject will be classified as NOT ASSESSABLE.

Bibliography

Biochemistry:

- Feduchi. Bioquímica. Conceptos esenciales. 2015. 2ª edición. Editorial Médica Panamericana. Enllaç al texte/líbre
- Denise R Ferrier Bioquímica. 2018. 7ª edición Lippincott Williams & Wilkins. Enllaç al texte/líbre
- Angel Gil. Tratado de Nutrición Tomo 1. Bases fisiológicas y bioquímicas de la nutrición. 2017. 3ª edición. Editorial Médica Panamericana. Enllaç al texte/líbre · Grimm P. Nutrición. Texto y atlas. 2021. 8ª edición. Editorial Elsevier. Enllaç al texte/líbre
- Thomson JL, Manore MM, Vaughan LA. Nutrición. 2008. Editorial Pearson Educación. Enllaç al texte/líbre

Diets and feeding:

- F.R. Greer. Committee on Nutrition American Academy of Pediatrics. Diagnosis and prevention of iron deficiency and iron-deficiency anemia in infants and young children (0-3years of age).Pediatrics, 126 (2010), pp. 1040-105. m hppt: [dx.doi.org/10.1542/peds.2010-2576](https://doi.org/10.1542/peds.2010-2576) | Medline
- www.aepap.org/sites/default/files/curvas_oms.pdf Guia recomancions per a l'alimentació en la primera infància (de 0 a 3 anys)
- www.aesan.gob.es/AECOSAN/docs/documentos/publicaciones/seguridad_alimentaria/RECOMENDACIONES
- Gloria colli-pediatra. www.gloriacolli-pediatra.com/alergia-a-leche-de-vaca-nunca-podra-tomar-leche/
- <https://canalsalut.gencat.cat/ca/salut-a-z/e/embaras-part-i-postpart/alimentacio/>
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- <https://nutricion360.es/nutricion-salud/diabetes/dieta-para-diabeticos-tipo-2>
- <https://www.cancer.gov/espanol/publicaciones/educacion-para-pacientes/consejos-de-alimentacion>
- https://seedo.es/images/site/version_completa_POSICIONAMIENTO_SEEDO_16_05_2016.pdf
- <https://www.sediabetes.org/> (sociedad española diabetes)
- <https://www.cancer.gov/espanol/publicaciones/educacion-para-pacientes/consejos-de-alimentacion>
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- https://www.aesan.gob.es/AECOSAN/web/para_el_consumidor/seccion/informacion_Nutri_Score.htm
- <https://www.argentina.gob.ar/justicia/derechofacil/leysimple/salud/ley-de-etiquetado-frontal>

Software

Non aplicable

Groups and Languages

Please note that this information is provisional until 30 November 2025. You can check it through this [link](#). To consult the language you will need to enter the CODE of the subject.

Name	Group	Language	Semester	Turn
(SEM) Seminars	101	Catalan/Spanish	second semester	morning-mixed
(SEM) Seminars	102	Catalan/Spanish	second semester	morning-mixed
(SEM) Seminars	103	Catalan/Spanish	second semester	morning-mixed
(SEM) Seminars	104	Catalan/Spanish	second semester	morning-mixed
(SEM) Seminars	105	Catalan/Spanish	second semester	morning-mixed
(SEM) Seminars	106	Catalan/Spanish	second semester	morning-mixed
(SEM) Seminars	107	Catalan/Spanish	second semester	morning-mixed
(SEM) Seminars	108	Catalan/Spanish	second semester	morning-mixed

(SEM) Seminars	109	Catalan/Spanish	second semester	afternoon
(SEM) Seminars	110	Catalan/Spanish	second semester	afternoon
(SEM) Seminars	111	Catalan/Spanish	second semester	afternoon
(SEM) Seminars	112	Catalan/Spanish	second semester	afternoon
(TE) Theory	101	Catalan/Spanish	second semester	morning-mixed
(TE) Theory	102	Catalan/Spanish	second semester	morning-mixed
(TE) Theory	103	Catalan/Spanish	second semester	afternoon