

**Nutrition**

Code: 101821  
ECTS Credits: 6

Degree	Type	Year	Semester
2500891 Nursing	FB	1	2

**Contact**

Name: Nina Granel Gimenez  
Email: Nina.Granel@uab.cat

**Use of Languages**

Principal working language: catalan (cat)  
Some groups entirely in English: No  
Some groups entirely in Catalan: Yes  
Some groups entirely in Spanish: No

**Teachers**

José Rodríguez Álvarez  
Miguel Jiménez Pera  
Victor Jose Yuste Mateos  
Jose Ramon Bayascas Ramirez  
Maria Antonia Baltrons Soler  
Antonia Arreciado Marañón

**Prerequisites**

None applicable

**Objectives and Contextualisation**

This subject aims to provide to the students the skills in order to offer care services efficiently and effectively. It provides knowledge of biochemistry, nutrition and food to help people manage the need to feed, and establish a the balanced diet or a therapeutic diet according to the health situation, gender, gender and social and cultural factors.

It also provides basic knowledge about therapeutic diets so that the nurse can care for and facilitate the learning processes of people with health problems.

Knowledge of this subject is built on the foundations provided by the Human Body Structure, Human Body Function and Culture, Society and Health.

The theoretical contents of this subject are taught during the second semester of the first year and are integrated with the subject of Ethical Bases, Management and Quality of Nurse Care through problem based learning (PBL). This content continues being worked on the subject Methodological Bases in Nursing in the seconds year of the degree.

At the same time this subject serves as the theoretical basis for other subjects such as Pharmacology, Adult Nurse Care I and II, Nursing Care during the Aging Process, Nursing Care in Childhood, Adolescence and Women's And Nurse Care in Complex Situations. The contents are applied during the clinical placements.

## Competences

- Analyse and synthesise complex phenomena.
- Develop independent learning strategies.
- Identify, analyse and choose the most suitable option to respond efficiently and effectively to problems in the professional context.
- 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.
- Respect the environment and promote sustainable development.

## Learning Outcomes

1. Analyse and synthesise complex phenomena.
2. Design diets appropriate for healthy people and for the most frequent pathologies.
3. Determine the problems that occur most frequently when people with health problems do not follow the therapeutic diet planned and propose effective actions for ensuring that they follow they diet.
4. Develop independent learning strategies.
5. Explain the dietetic principles involved in the nursing activities aimed at food health education.
6. Explain the nutritional principles involved in nursing activities aimed at food health education.
7. Identify the nutritional needs of healthy people and/or those with health problems.
8. Identify, analyze and make the right choice paragraphs to address problems professionally, efficiently and effectively.
9. Respect the environment and promote sustainable development.
10. Select appropriate diet recommendations for the treatment of people according to their health problems.

## Content

### Unit I. Energy and Nutrients

- Structure and properties of the nutrients. General Requirements and recommendations.

- Simple and complex carbohydrates
- Lipids: saturated and unsaturated fats; Essential Lipids
- Proteins and aminoacids
- Vitamins
- Minerals and trace elements
- Water
- Vegetable fiber

- Energy homeostasis

- Biochemistry of energy transfers
- Energy expenditure
- Individual energy requirements
- Caloric value of nutrients

### Unit II. Digestion, absorption and metabolism of nutrients

- Carbohydrates
- Lipids. Blood lipid Transport
- Proteins and other nitrogen compounds. Nitrogen balance
- Metabolic interrelations in different nutritional states (food-fasting cycle), exercise, Diabtetis.

### Unit III. Evaluation of the nutritional state

- Anthropometry. Body mass index, waist and hip perimeters, cutaneous folds

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

- Foods rich in protein and lipids: Group of milk and derivatives. Group of meat, fish and eggs
- Foods rich in carbohydrates and fiber: Group of cereals, tubers and legumes. Fruit, vegetable and vegetables Group
- Other foods: Miscellany group: Alcohol, additives, pollutants

#### Unit V. Healthy Eating

- Characteristics of nutritional balance.
- Qualitative and quantitative food balance. Food composition tables. Food portions. Eating behaviour. Evaluation of the diet.
- The need for a healthy diet in every stage of life. Biological, psychological, social and cultural Factors that influence eating behaviour. Valuation and recommendations.

#### Unit VI. Therapeutic Diets

- Introduction to Dietotherapy.
- Each diet is structured as follows: Diet characteristics. Evaluation of needs, identification of the problems. Formulation of objectives. Proposing and justifying the educational interventions for the assisted person and the family. Prepare the diet with the person. Making a diet. Problems related to the performance of therapeutic diets. Evaluation. Continuity of the patient in the care to maintain the adherence to the diet.
- The need to feed people with more prevalent and/or high-impact health problems
- Food manipulation and regulation: most prevalent problems
- Food Preservation: Objectives, treatments, food containers. Sustainable environment: strategies.

## Methodology

### Module 1:

The content of this course is taught with theoretical classes and parallel workshops are held to discuss cases in order to work on the knowledge needed in each case.

### Module 2:

The student participates in problem-based learning sessions (PBL) in group of students (groups of 20-25 students) and a teacher/tutor. Through this situation/problem, the student acquires skills to tackle problems, prioritize and seek information, make decisions and evaluate their activity. The role of the student is active because he is responsible for the learning process. The teacher's role is to facilitate and guide this process in which three stages are contemplating:

#### First session

Choosing a scenario or situation by consensus: Students are given abstracts of situations that they will need to work along the unit. They illustrate something that happens to a person, group or community in a real situation. Exploration of the situation: Students using brainstorm identify the problem and the relevant aspects that are related to it. They also identify the previous knowledge that they have of this problem and the areas that need to study further in order to understand and be able to cope with it. By means of a reasoning and analysis of the data, students are asked questions to come to formulate hypotheses; Identify the objectives and learning outcomes to be attained. With these elements the Group should guide their study plan for the second session. Agreed a work plan.

#### Second session

The students explain briefly the literature in the search period, the sources and the resources used to study. The group discusses individual search strategies and the query sources used to critically assess the collected information (the authors' reputations, methods of research used, statistical methods applied...). , where all members of the group are discussed the planned work plan should have the opportunity to explain the information they have studied. With this sharing, students are making a qualification for critical evaluation and correction of their previous knowledge, at the same time developing the ability to critically evaluate their

reasoning. As a result of the discussion, a summary of knowledge and abstraction of the principles and concepts that could be applied to other analogous situations should be extracted. The situation must be returned to evaluate for and justify the hypothesis list to review the learning plan see whether they are accepted, modified or deleted.

Third session

In this session analyses the situation of the problem worked and synthesis of the learning acquired answering the following questions: What has been learned? How does this learning relate to the objectives? What new principles or concepts have been discussed? What has been learned will help to understand different problems or situations in the future? What areas of learning were identified but did not work? All questions that allow identifying the knowledge reached and what still remains pending.

This third session is finished with self-assessment, peer assessment and teacher evaluation.

## Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
SEMINARS (SEM)	32	1.28	1, 4, 3, 2, 5, 6, 7, 8, 9, 10
THEORY (TH)	20	0.8	1, 2, 5, 6
Type: Autonomous			
COURSEWORKS/ PERSONAL STUDY/ ARTICLES REVIEW	89.5	3.58	1, 4, 2, 5, 6, 8

## Assessment

Evaluation system

This subject has an assessment by modules, each of which is assigned a specific value in the final grade:

Module 1: Evaluation of the I-IV units: (50% of the final grade of the subject)

- The overall note of sections I-IV constitutes 50% of the final grade of the course and will be obtained from: the average of the grades obtained in two small written tests of continuous evaluation, which will take place during the seminars (30%) And the mark obtained in the written test of the global content of this module (70%).
- The two tests of continuous evaluation, with a value of 15% each, in which will evaluate the problems worked at class and discussed in each seminar in form of proofs of essays and the corresponding theoretical contents in format of multiple selection of items test.
- The global test, with a value of 70% (biochemistry), which will also assess the problems worked on in the seminars in the form of test and the corresponding theoretical contents in the format of questions of multiple selection items. The exam date will be determined by the UAB exam calendar for the current year.

Module 2: Evaluation of the V-VI units: (50% of the final grade of the course)

The overall mark of sections V-VI constitutes 50% of the final grade of the course and is obtained from the PBL seminars (40%) and oral presentation of courseworks (10%). This module is integrated with the subject "Ethical Bases, management and quality of nursing services ". The seminars will be carried out by applying the problem-based learning (ABP) through the student's participation in the resolution of 4 cases and the attendance in class. In small groups students must perform a small oral presentation.

Final mark:

A mark of 5 must be taken in each module to pass the subject:

Module 1: Units I, II, III and IV

Module 2: Units V and VI

The final grade results from the average of the 2 modules assessments, each module must be approved with a

5 on the 0-10 scale.

Test review: The results of the assessments will be posted on the website, as well as the day and time when the student can revise the assessment tests with the teaching staff.

Definition of non-evaluable: When the student has not attended to one of the modalities of evaluation exposed. For the PBL seminars of the module 2 It is considered non-evaluable when the student has missed 3 or more PBL sessions.

Student with particular situations: in the event of any specific case, a evaluating committee will be set up for this purpose.

Students who have not passed the subject through the continuous assessment a final exam will be offered.

## Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Attendance and active participation in class and seminars	40%	2	0.08	1, 4, 3, 2, 5, 6, 7, 8, 9, 10
Oral presentation of courseworks	10%	1.5	0.06	1, 4, 3, 2, 5, 6, 7, 8, 9, 10
Written assessments by objective tests: items selection and essay tests	50%	5	0.2	1, 4, 2, 5, 6

## Bibliography

### Reference List

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#### Units V-VI

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Serra Majem L, Aranceta Bartrina J. Nutrición y salud pública: métodos, bases científicas y aplicaciones. Barcelona: Masson; 2006.

Sociedad Española de Dietética y Ciencias de la Alimentación. Madrid: SEDCA <http://www.nutricion.org/>

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