

MODULE	SUBJECT MATTER	YEAR	SEMESTER	CREDITS	TYPE
Health Nutrition	Health Nutrition	2º	2º	6	Optative
TEACHING STAFF ⁽¹⁾			ADDRESS, TELEPHONE NUMBER, EMAIL, ETC. DIRECCIÓN COMPLETA DE CONTACTO PARA TUTORÍAS (Dirección postal, teléfono, correo electrónico, etc.)		
<ul style="list-style-type: none"> Rafael Giménez Martínez: Part I “Dpt. Nutrition and Food Science” Miguel Mariscal Arcas: Part II “Dpt. Nutrition and Food Science” 			DEPT. Nutrition and Food Science”, School of Pharmacy. Email: rafaelg@ugr.es , mariscal@ugr.es		
			TIMETABLE FOR TUTORIALS OR LINK TO WEBSITE		
			Dr Giménez: https://directorio.ugr.es/static/PersonalUGR/*/show/682114046448d125a4c7ee97caf9ba45 Dr. Mariscal: https://directorio.ugr.es/static/PersonalUGR/*/show/725643378c5a617af6988b755d7ef7ae		
BELONGS TO UNDERGRADUATE DEGREE PROGRAMME			AND ALSO TO OTHER UNDERGRADUATE DEGREE PROGRAMMES		
<i>Grade in Physiotherapy</i>					
PREREQUISITES OR RECOMMENDATIONS (where applicable)					
Knowledge in Biochemistry, Physiology, Pathophysiology, Nutrition and Food Science					
BRIEF DESCRIPTION OF CONTENT (ACCORDING TO OFFICIAL VALIDATION REPORT)					
Energy and nutritional requirements. Nutrients. Dietetics. Food safety					
GENERAL AND SPECIFIC COMPETENCES					

¹ Consult any updates in Acceso Identificado > Aplicaciones > Ordenación Docente

(∞) This course guide should be filled in according to UGR regulations on assessment of student learning: ([http://secretariageneral.ugr.es/pages/normativa/fichasugr/ngc7121/!](http://secretariageneral.ugr.es/pages/normativa/fichasugr/ngc7121/))



A. general skills

- 1.2. Troubleshooting.
- 1.4. Capacity for analysis and synthesis.
- 1.6. Ability to manage information.
- 1.7. Teamwork.
- 1.8. Critical Thinking.
- 1.9. Self-learning

B. Specific skills

- 2.6. Understand learning theories applied in health education and the learning process throughout life
- 2.17. Understand the fundamental concepts of health and function performed by the therapist in the health system. Promoting healthy lifestyles through health education.

OBJECTIVES (EXPRESSED AS EXPECTED LEARNING OUTCOMES)

- To Know the preventative effect on health of optimal nutrition.
- To know the energy and nutrient necessary to maintain an optimal health.
- To study the nutritional aspects, sources and recommended intakes of different nutrients.
- To define the nutritional needs at different stages of life, and physiological states in sports.
- To consider food as a vehicle of pollutants
- To distinguish between the recommendations set out in the food pyramid, dietary reference intakes and nutritional goals.
- To study the healthy Mediterranean food

DETAILED SYLLABUS

A. THEORETICAL PROGRAM

1. GENERAL. Nutrition and food science: definitions. Concept of food and nutrient. Objectives. Historical evolution. Relation to other sciences. Current status and prospects. Bibliographical sources.
2. NUTRITIONAL NEEDS I. Cellular energy transformations. Minimum energy requirements and totals. Factors that modify them. Specific dynamic effect.
3. NUTRITIONAL NEEDS II. Energy value of foods. Tables of food composition. Nutrient and energy needs of the human organism: food pyramid, recommended intakes and nutritional goals
4. NUTRITIONAL ASPECTS OF CARBOHYDRATES. Classification, functions and sources. Digestion, absorption, metabolism and regulation. Dietary Fiber. Dietary recommendations.
5. NUTRITIONAL ASPECTS OF LIPID. Classification, functions and sources. Digestion, absorption, metabolism and regulation. Essential fatty acids. Dietary recommendations.
6. NUTRITIONAL ASPECTS OF PROTEIN. Classification, functions and sources. Digestion, absorption, metabolism and regulation. Essential amino acids. Evaluation of protein quality. Supplementation and complementation. Dietary recommendations.
7. NUTRITIONAL ASPECTS OF MINERAL. Classification, functions and sources. Digestion, absorption, metabolism and regulation. Bioavailability. Factors influencing the content of minerals in food. Dietary



recommendations.

8. NUTRITIONAL ASPECTS OF VITAMIN. Classification, functions and sources. Digestion, absorption, metabolism and regulation. Factors influencing the vitamin content in food. Dietary recommendations.

9. NUTRITIONAL IMPORTANCE OF WATER. Water balance. Nutritional requirements. Sources. Regulation.

10. COMPOSITION AND NUTRITIONAL VALUE OF MAJOR FOOD GROUPS. Animal foods: meat, seafood, eggs and milk derivatives. Edible fats. Plant foods: grains, legumes, and vegetables, and fruits. Drinks.

11. HUMAN NUTRITION DURING PREGNANCY AND BREASTFEEDING. Nutritional needs during pregnancy. Nutritional needs during lactation. Recommended food groups.

12. HUMAN NUTRITION DURING THE FIRST YEAR OF LIFE. Nutritional needs in the infant. Milk. Milk formula. Evolution of feeding during the first year of life: Beikost.

13. HUMAN NUTRITION IN CHILDHOOD. Nutritional requirements in infancy. Education infant nutrition.

14. Human Nutrition in Adolescence. Physiological changes and nutritional needs of the adolescent. Nutritional problems.

15. HUMAN NUTRITION IN HEALTHY ADULT. Physiological and psychosocial changes. Nutritional needs in the healthy adult. Recommended food groups.

16. HUMAN NUTRITION IN THE ELDERLY. Concept of aging: associated pathologies. Physiological changes related to nutrition. Nutritional Needs. Recommended Foods.

17. SPORTS NUTRITION IN PRACTICE. Nutritional needs of the athlete. Diets training, pre-competition and post-competition. Ergogenic substances. Alcohol and sport. Café sport.

18. NUTRITION AND DISEASE PREVENTION. Nutrition and the prevention of obesity, cardiovascular disease, hypertension, osteoporosis, anemia, cancer and dental caries.

19. NUTRITIONAL STATUS. Assessments of psychosocial information, food consumption, clinical, anthropometric and biochemical. Subjective assessment of nutritional status.

20. ALTERNATIVE FORMS SUPPLY. Vegetarian Food. Macrobiotic Food. Food hygienist: dissociated diet concept. Mediterranean Food. Advantages and disadvantages.

B. PRACTICAL PROGRAM

1. Calculation of baseline energy requirements and / or full of healthy individuals, athletes, according to the physiological state, etc... Calculation of the energy value of a ration or diet by using food composition tables.

2. Dietary assessment of nutritional status. 24 hrs-dietary recall for 3 consecutive days including weekend 1, using a packet data processing computer.

3. Balanced menu planning for 1-2 weeks.

BIBLIOGRAPHY

- M. Requejo, R. M. Ortega : "NUTRIGUÍA: MANUAL DE NUTRICIÓN CLÍNICA EN ATENCIÓN PRIMARIA". Complutense. Madrid, 2003.
- Angel Gil Hernández : "TRATADO DE NUTRICIÓN". Editorial Médica Panamericana. Madrid, 2017.
- E. Casanueva, M. Kaufer-Hortwitz, A. B. Pérez-Lizauz, P. Arroyo : "NUTRIOLOGÍA MÉDICA, 2ª edición". Panamericana Medica. Buenos Aires, 2001.



- J. Mataix Vedú : "NUTRICIÓN Y ALIMENTACIÓN HUMANA". Ergon. Madrid, 2002.

RECOMMENDED LINKS

- Ingestas dietarias de referencia (DRIs): <http://www.nal.usda.gov/fnic/etext/000105.html>
- Organización de Naciones Unidas para la agricultura y alimentación. www.fao.org
- Agencia Española de Consumo, Seguridad Alimentaria y Nutrición (AECOSAN): http://www.aecosan.msssi.gob.es/AECOSAN/web/home/aecosan_inicio.htm
- Guía de la alimentación y salud UNED: <http://www.uned.es/pea-nutricion-y-dietetica-l/guia/>
- Federación española de sociedades de nutrición, alimentación y dietética. <http://www.fesnad.org/>

TEACHING METHODOLOGY

- Participatory Lecture
- Learning based on problem solving and case studies

ASSESSMENT (ASSESSMENT INSTRUMENTS, CRITERIA AND PERCENTAGE VALUE OF FINAL OVERALL MARK, ETC.)

A. Continuous Evaluation:

- Evaluation of the theoretical contents: one or two eliminatory partial controls will be carried out (one for each part of the subject) and a final. Said note of theoretical knowledge, will count with 60% in the final grade, and which may include a test type part and another with questions of development of theoretical knowledge of the subject.
In the case of written exams (partial and final) it is necessary for the arithmetic mean between them to have been obtained, having obtained a minimum grade of 4 (out of 10) in each of the written tests.
- Autonomous work and assistance. These works will consist of delving into program themes, or related to the subject, and that have a current interest, the main objective is to promote group work, and contact the teacher who will specifically solve the problems that the students ask him. The presentation of these works will be compulsory and will be done in a summarized way in the face-to-face classes, in order to initiate the student in teaching tasks.
The qualification of the autonomous work will contribute with 15% and the attendance and active participation in class, with a maximum of 5% to the final grade.
- The evaluation of the knowledge and practical skills of the subject
The qualification of the practices will contribute with 20% For the evaluation of the practices it will be taken into account:
 - The development and interest shown during the execution of the practices.
 - The daily preparation of reports corresponding to each practice.
 - A practical assumption regarding a food and a theoretical exercise on the foundations of the practices carried out and corresponding calculations.

To pass the course it is necessary to pass the three parts of it that are evaluated (theoretical exam, practical exam and work)



To be able to apply this evaluation system it is necessary that the note of the theoretical and practical knowledge is at least 4.0 out of 10.0 in both cases. In addition, self-employment will be mandatory

B. Extraordinary evaluation:

In the extraordinary evaluation, the marks of attendance, autonomous work and practices will be kept, so that the sum of all the sections is 10.0.

DESCRIPTION OF THE EXERCISES WHICH WILL CONSTITUTE SINGLE FINAL ASSESSMENT AS ESTABLISHED IN UGR REGULATIONS

- It will be carried out in a single academic act consisting of a theoretical-practical exam. Students who wish to take advantage of this evaluation modality will have to request it to the Director of the Department in the first two weeks from the student's enrolment in the subject, citing and accrediting the reasons that assist him or her for not being able to follow the continuous evaluation system.

SCENARIO A (ON-CAMPUS AND REMOTE TEACHING AND LEARNING COMBINED)

TUTORIALS

TIMETABLE

(According to Official Academic Organization Plan)

<https://www.ugr.es/~nutricion/index.php>
Exclusively by appointment

TOOLS FOR TUTORIALS

(Indicate which digital tools will be used for tutorials)

Email and PRADO messages
The tutorial attention will be in Tutoring hours

MEASURES TAKEN TO ADAPT TEACHING METHODOLOGY

- PRADO platform to provide teaching material to students.
- PRADO platform for managing tasks and activities carried out by students.
- PRADO messages for the delivery and review of tasks proposed to students.
- Face lessons adapted to PRADO resources.
- Hands-on classes and classroom exhibitions and synchronous streaming classes with Google Meet

MEASURES TAKEN TO ADAPT ASSESSMENT (Instruments, criteria and percentage of final overall mark)

Ordinary assessment session

- Theoretical exam: 55%
- Practical exam: 20%
- Attendance and participation in class: 5%
- Autonomous work of the student: 20%

Extraordinary assessment session

- Theoretical exam: 55%
- Practical exam: 20%
- Attendance and participation in class: 5%
- Autonomous work of the student: 20%



Single final assessment

- Theoretical exam: 60%
- Practical exam: 20%
- Autonomous work of the student: 20%

SCENARIO B (ONCAMPUS ACTIVITY SUSPENDED)

TUTORIALS

TIMETABLE

(According to Official Academic Organization Plan)

TOOLS FOR TUTORIALS

(Indicate which digital tools will be used for tutorials)

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Exclusively by appointment

Email and PRADO messages
The tutorial attention will be in Tutoring hours

MEASURES TAKEN TO ADAPT TEACHING METHODOLOGY

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MEASURES TAKEN TO ADAPT ASSESSMENT (Instruments, criteria and percentage of final overall mark)

Ordinary assessment session

- Theoretical exam: 50%
- Practical exam: 20%
- Attendance and participation in class: 5%
- Autonomous work of the student: 25%

Extraordinary assessment session

- Theoretical exam: 50%
- Practical exam: 20%
- Attendance and participation in class: 5%
- Autonomous work of the student: 25%

Single final assessment

- Theoretical exam: 60%
- Practical exam: 20%
- Autonomous work of the student: 20%

ADDITIONAL INFORMATION (if necessary)



Regulations for the evaluation and qualification of the students of the University of Granada.

Firma (1): MIGUEL MARISCAL ARCAS
En calidad de: Secretario/a de Departamento



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Page 7

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Pág. 7 de 7