



Universitat de Lleida

DEGREE CURRICULUM

BIOLOGICAL BASIS FOR THE ATTENTION TO THE PERSON: PHYSIOLOGY

Coordination: MARTIN GARI, MERITXELL

Academic year 2023-24

Subject's general information

Subject name	BIOLOGICAL BASIS FOR THE ATTENTION TO THE PERSON: PHYSIOLOGY			
Code	100651			
Semester	1st Q(SEMESTER) CONTINUED EVALUATION			
Typology	Degree	Course	Character	Modality
	Grau en Infermeria	1	COMMON/CORE	Attendance-based
Course number of credits (ECTS)	6			
Type of activity, credits, and groups	Activity type	PRALAB	PRAULA	TEORIA
	Number of credits	0.8	1	4.2
	Number of groups	4	4	2
Coordination	MARTIN GARI, MERITXELL			
Department	NURSING AND PHYSIOTHERAPY			
Teaching load distribution between lectures and independent student work	Lectures: 60h Independent student work: 100h			
Important information on data processing	Consult this link for more information.			
Language	Catalan, Spanish, English			
Distribution of credits	Theoretical classes (42h) Practical classes (8h) Seminars (10h)			

Teaching staff	E-mail addresses	Credits taught by teacher	Office and hour of attention
MARTÍN GARI, MERITXELL	meritxell.martin@udl.cat	2,6	
MOTA MARTORELL, NATALIA	natalia.mota@udl.cat	13	Friday 11 to 12h, place to determine

Subject's extra information

This subject provides scientific knowledge of the human body based on the study of its function from the molecular level to the organism as a whole, applicable to human health.

Learning objectives

The main learning objectives to be achieved through the scheduled activities are:

- Think clearly and critically, merging experience, knowledge, and reasoning.
- Identify, interpret, and respond to problems effectively.
- Use oral and written communication skills appropriately and effectively.

Competences

Basic:

CB1. Students have demonstrated that they possess and understand knowledge in an area of study that starts from the base of general secondary education and is usually found at a level that, although supported by advanced textbooks, also includes some aspects that involve knowledge from the forefront of their field of study.

CB2. Students know how to apply their knowledge to their work or vocation in a professional manner and possess the competencies that are usually demonstrated through the development and defence of arguments and the resolution of problems within their field of study.

Specific:

CE1. Understand and identify the structure and function of the human body.

CE2. Understand the molecular and physiological bases of cells and tissues.

Transversal:

CT1. Acquire adequate oral and written comprehension and expression in Catalan, Spanish, and English.

CT3. Acquire competence in the use of new technologies and information and communication technologies.

CT5. Acquire essential notions of scientific thinking.

Subject contents

The content of the course is organized into modules (M). Within each module, the content is taught using different teaching modalities, including theoretical classes, practical classes, and seminars.

M1. Introduction to Physiology.

M2. Cellular Physiology.

M3. Physiology of Blood.

M4. Digestive Physiology.

M5. Respiratory Physiology.

M6. Cardiovascular Physiology.

M7. Renal Physiology.

M8. Reproductive Physiology.

M9. Endocrine Physiology.

M10. Skin Physiology.

M11. Nervous System Physiology.

M12. Introduction to Biophysics *

M13. Practical Classes and Seminars (Digestive, Respiratory, Blood, Renal, Endocrine, and Metabolism, Cardiovascular) *

*M12 and M13 are taught integrally during the development of M1-M11.

Methodology

The content of each module is taught using different methodologies:

- **Theoretical classes:** Lectures that define the physiological processes of the human body in a state of health (homeostasis).
- **Practical classes:** Laboratory work and/or the use of virtual simulators, allowing for a deeper understanding of the physiological processes that regulate individual homeostasis.
- **Seminars:** Resolution of clinical cases.
- **Self-evaluation:** Completion of questionnaires and activities that allow students to monitor their self-learning progress.

Development plan

The content is taught by alternating the different teaching methodologies. In general terms, practical classes, seminars, and self-evaluation activities are carried out after the theoretical content has been taught.

- Theory (Lectures: M1-M12)
- Practical classes (Laboratory work or using virtual simulators: M3, M4, M6, and M9)
- Seminars (Clinical cases: M5, M7, M8, M10, and M11)
- Self-evaluation activities (Questionnaire resolution: M1-M12)

Evaluation

The evaluable activities are:

1. **Questionnaire:** theoretical content, practical classes, and seminars (20%)

2. **Final exam:** theoretical content, practical classes, and seminars (50%)
3. **Practical classes and seminars:** attendance and exercise and clinical case submission (15%)
4. **Self-evaluation activities:** completion and submission (15%)

Other evaluation requirements

- To pass the course, it is essential to pass the final exam with a grade equal to or higher than 5 out of 10. It will be conducted during the assessment period (as established in the academic calendar).
- The final exam is the only recoverable assessable activity that allows for recovery when a student obtains a grade lower than 5 or does not take it. It will be conducted during the recovery period (as established in the academic calendar), and the grade obtained will account for 40% instead of 50%.
- Completion and submission of all assessable activities are essential in order to evaluate and pass the course.

The evaluation system for those opting for **alternative assessment** is as follows:

1. Final exam: theoretical content (85%)
2. Completion and submission of clinical cases, exercises, and self-evaluation activities.

Bibliography

Books

Tortora GJ, Derrickson B. Principios de anatomía y fisiología (15a ed). Buenos Aires: Editorial Médica Panamericana, 2013 (available at the Campus Health Library as an online resource)

Patton K, Thibodeau GA. Anatomía y fisiología (8a ed). Barcelona: Elsevier, 2013.

Guyton AC, Hall JE. Tratado de fisiología médica (13a ed). Barcelona: Elsevier, 2006.

Dorland. Diccionario enciclopédico ilustrado de medicina (30a ed). Barcelona: Elsevier, 2005

Constanzo LS. Fisiología (4a ed). Barcelona: Elsevier, 2011.

Mulroney SE, Myers AK. Netter, fundamentos de fisiología (2a ed). Barcelona: Elsevier, 2011.

Tortora GJ, Derrickson B. Introducción al cuerpo humano. Fundamentos de anatomía y fisiología (7a ed). Buenos Aires: Editorial Médica Panamericana, 2008.

Barret KG. Fisiología médica (23a ed). Madrid: Mc Graw-Hill, 2010.

Fox SI. fisiología humana. (12a ed). Madrid: Mc Graw-Hill, 2011.

Thibodeau FA, Patton KT, Berne RM, Levy MN. Fisiología (6a ed). Barcelona: Elsevier, 2009.

On-line resources:

Zao P. PhysioEx. <https://www.physioex.com/>

BioMan Biology. <https://biomanbio.com/index.html>

University of Colorado. PhET: Simulaciones interactivas de ciencias y matemáticas. (<https://phet.colorado.edu/es/simulations/browse>)

Jones TC. Virtual Biology Lab. <https://virtualbiologylab.org/>