



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

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