



Information about the subject

Degree: Bachelor of Science Degree in Human Nutrition and Dietetics

Faculty: Faculty of Medicine and Health Sciences

Code: 1311106 **Name:** Physiology

Credits: 6,00 **ECTS Year:** 1 **Semester:** 2

Module: Basic Science Module

Subject Matter: Physiology **Type:** Basic Formation

Field of knowledge: Health Sciences

Department: -

Type of learning: Classroom-based learning

Languages in which it is taught: Spanish

Lecturer/-s:

131A Francisco Jose Revert Ros (**Responsible Lecturer**) fj.revert@ucv.es



Module organization

Basic Science Module

Subject Matter	ECTS	Subject	ECTS	Year/semester
Biology	6,00	Biology and Genetics	6,00	1/1
Biochemistry	6,00	Biochemistry	6,00	1/2
Chemistry	12,00	Basic Fundamentals of Chemistry	6,00	1/1
		Organic Chemistry	6,00	1/2
Physiology	12,00	Physiology	6,00	1/2
		Physiology II	6,00	2/1
Statistics	6,00	Biostatistics	6,00	1/1
Human Anatomy	6,00	Human Anatomy	6,00	1/1
Psychology	6,00	Psychology	6,00	2/1
Anthropology	12,00	Anthropology	6,00	1/1
		Food and Culture	6,00	4/1

Recommended knowledge

Not specified.



Learning outcomes

At the end of the course, the student must be able to prove that he/she has acquired the following learning outcomes:

- R1 Understands and assimilates the concepts included in the content of the course.
- R2 Shows ability to solve problems related to these contents using different resources.
- R3 Shows ability to work in a laboratory performing correctly the basic operations and observing the corresponding security rules. As well as a correct understanding of the planning, development and purpose of the experience.
- R4 Understands and adequate uses language, as well as correct writing and presentation of data.



Competencies

Depending on the learning outcomes, the competencies to which the subject contributes are (please score from 1 to 4, being 4 the highest score):

BASIC		Weighting			
		1	2	3	4
CB1	Students demonstrate knowledge and understanding in an area of study that is at the core of general secondary education, and is often at a level that, while supported by advanced textbooks, also includes some aspects that involve knowledge from the cutting edge of their field of study.			X	

GENERAL		Weighting			
		1	2	3	4
CG14	Students apply scientific knowledge of physiology, physiopathology, nutrition and feeding to the planning and dietary advice in individuals and collectivities, along the life cycle, both healthy and sick.			X	

SPECIFIC		Weighting			
		1	2	3	4
CE02	Students know the structure and function of the human body from the molecular level to the complete organism in the different stages of life.				X



Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
R1, R2	5,00%	Evaluation of the use of the practical classes in the classroom, of problems or computers, seminars and tutorials. Through attendance, and participation in the different activities proposed.
R1, R4	65,00%	Written evaluation of the knowledge and skills obtained. The test may consist of a series of open-ended or multiple-choice questions on the theoretical content of the subject and/or practical exercises (problem solving).
R3, R4	15,00%	Assessment of practical laboratory work, or laboratory culinary techniques workshop, through which the competencies acquired must be demonstrated and that they are capable of being used to solve the different situations and problems that arise in a laboratory; this assessment may be carried out by one of the following methods, or a combination of several of them: an individual written test, the individual or group performance of a laboratory experience, the submission of an individual or group report on the work carried out in the laboratory
R2, R3	15,00%	Evaluation of individual or group practices or activities, in which information related to each of the subjects must be sought and structured, and cases or problems resolved. This is done through a system of continuous evaluation throughout the course, which involves the delivery and / or exposure of work, whose objectives and content will be proposed by the teacher.

Observations

A minimum grade of 5 is required in both the **Written Assessment of Knowledge** and the **Assessment of Practical Laboratory Work** in order to average. Attendance to laboratory



practices is compulsory.

Criteria for granting honors: The honors may be awarded to the best students, who must have obtained a minimum grade of 9. If circumstances require, a special test may be established to determine those students deserving of the honors, given the limitation of the 5% of enrolled students. In second and subsequent calls, only the honors that could be subtracted after the first call may be granted.

MENTION OF DISTINCTION:

According to Article 22 of the Regulations governing the Evaluation and Qualification of UCV Courses, the mention of "Distinction of Honor" may be awarded by the professor responsible for the course to students who have obtained, at least, the qualification of 9 over 10 ("Sobresaliente"). The number of "Distinction of Honor" mentions that may be awarded may not exceed five percent of the number of students included in the same official record, unless this number is lower than 20, in which case only one "Distinction of Honor" may be awarded.

Learning activities

The following methodologies will be used so that the students can achieve the learning outcomes of the subject:

- M1 Exposition of contents by the teacher, analysis of competencies, explanation and demonstration of capacities, skills and knowledge in the classroom. The blackboard, the computer and the cannon will be used to display texts, graphics, etc.
- M3 Resolution of practical exercises and case studies, analysis of evaluation procedures and procedural intervention. All this with the support of the teacher. This aspect can be controlled through attendance and active participation in the practical sessions.
- M4 Monographic sessions throughout the course, oriented towards current aspects and applications of the subject.
- M5 Student study: individual preparation of readings, essays, problem solving, seminars, papers, reports, etc. for discussion or delivery in electronic format.
- M6 Application and sharing of multidisciplinary knowledge This is the resolution of a problem that in its subsequent professional practice would require the application of skills acquired through the development of the modules and that would produce synergies in the assimilation of transversal and specific skills. Group work competences will be specifically evaluated.



- M7 Personalised attention and in small groups. Period of instruction and/or orientation carried out by a tutor with the aim of reviewing and discussing the materials and topics presented in the classes, seminars, readings, completion of assignments, etc. The attendance of the student and his/her level of gradual development in the knowledge of the subjects will be evaluated.
- M8 A set of tests, written or oral, used in the evaluation of the student.
- M9 Group preparation of readings, essays, problem solving, seminars, papers, reports, etc... for discussion or delivery.

IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical lessons M1, M3, M4, M5, M6, M7, M8, M9	R1, R2, R4	42,00	1,68
Laboratory M1, M3, M4, M5, M6, M7, M8, M9	R3, R4	10,00	0,40
Group work presentation M4, M5	R4	4,00	0,16
Office Hours M1, M7, M9	R1	2,00	0,08
Evaluation M1, M3, M4, M5, M6, M7, M8, M9	R1, R2, R4	2,00	0,08
TOTAL		60,00	2,40

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Autonomous work M3, M5, M6	R1, R2, R3, R4	80,00	3,20
Group work M1, M3, M4, M6, M7, M9	R3	10,00	0,40
TOTAL		90,00	3,60



Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
BLOCK I: INTRODUCTION TO PHYSIOLOGY. HOMEOSTASIS.	INTRODUCTION TO PHYSIOLOGY. HOMEOSTASIS.
BLOCK II: NERVOUS SYSTEM	<ol style="list-style-type: none">1. Organization of the nervous system.2. Central nervous system.3. Peripheral nervous system.4. Autonomic nervous system.
BLOCK III: SENSORY PHYSIOLOGY.	SENSORY PHYSIOLOGY.
BLOCK IV: PHYSIOLOGY OF THE MUSCULAR SYSTEM.	PHYSIOLOGY OF THE MUSCULAR SYSTEM.
BLOCK V: TRANSPORTATION AND DEFENSE.	<ol style="list-style-type: none">1. Blood, heart and circulation.2. Cardiac output, blood flow, blood pressure.3. Lymphatic system.



Temporary organization of learning:

Block of content	Number of sessions	Hours
BLOCK I: INTRODUCTION TO PHYSIOLOGY. HOMEOSTASIS.	3,00	6,00
BLOCK II: NERVOUS SYSTEM	10,00	20,00
BLOCK III: SENSORY PHYSIOLOGY.	6,00	12,00
BLOCK IV: PHYSIOLOGY OF THE MUSCULAR SYSTEM.	7,00	14,00
BLOCK V: TRANSPORTATION AND DEFENSE.	4,00	8,00

References

1. Berne y Levy. Fisiología, Séptima edición Koeppen, Bruce M., MD, PhD. 2018 Elsevier España, S.L.U.
2. Costanzo, Linda S., PHD. Fisiología, Séptima edición. 2023 Elsevier España, S.L.U
3. Hall, John E., PhD. Guyton y Hall. Compendio de fisiología médica, Decimocuarta edición. 2022 Elsevier España, S.L.U.



Addendum to the Course Guide of the Subject

Due to the exceptional situation caused by the health crisis of the COVID-19 and taking into account the security measures related to the development of the educational activity in the Higher Education Institution teaching area, the following changes have been made in the guide of the subject to ensure that Students achieve their learning outcomes of the Subject.

Situation 1: Teaching without limited capacity (when the number of enrolled students is lower than the allowed capacity in classroom, according to the security measures taken).

In this case, no changes are made in the guide of the subject.

Situation 2: Teaching with limited capacity (when the number of enrolled students is higher than the allowed capacity in classroom, according to the security measures taken).

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject will be made through a simultaneous teaching method combining onsite teaching in the classroom and synchronous online teaching. Students will be able to attend classes onsite or to attend them online through the telematic tools provided by the university (videoconferences). In any case, students who attend classes onsite and who attend them by videoconference will rotate periodically.

In the particular case of this subject, these videoconferences will be made through:

☒ Microsoft Teams

☐ Kaltura



Situation 3: Confinement due to a new State of Alarm.

In this case, the following changes are made:

1. Educational Activities of Onsite Work:

All the foreseen activities to be developed in the classroom as indicated in this field of the guide of the subject, as well as the group and personalized tutoring, will be done with the telematic tools provided by the University, through:

☒ Microsoft Teams

☐ Kaltura

Explanation about the practical sessions:

The practices will be carried out as established in the teaching guide.

Practice 1. Reflex exploration.

Practice 2. Sensory exploration.

Practice 3. Muscular physiology. Electromyography.

All practices will be done through TEAMS. This medium will be used to explain the practice, watch videos and resolve any doubts that may arise in the time established for its preparation. The delivery of the dossiers will be carried out as planned at the beginning of the course.



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Course guide

Year 2023/2024
1311106 - Physiology





2. System for Assessing the Acquisition of the competences and Assessment System

ONSITE WORK

Regarding the Assessment Tools:



The Assessment Tools will not be modified. If onsite assessment is not possible, it will be done online through the UCVnet Campus.



The following changes will be made to adapt the subject's assessment to the online teaching.

Course guide		Adaptation	
Assessment tool	Allocated percentage	Description of the suggested changes	Platform to be used
Individual laboratory test	15	Exam-queationary	UCVNet
Figures exam	5	Exam-queationary	UCVNet
Individual written test	65	Open answer exam	UCVNet
		Multiple choice test	

The other Assessment Tools will not be modified with regards to what is indicated in the Course Guide.

Comments to the Assessment System:



The percentages of the evaluation system do not vary. Only a modification is contemplated in the evaluation instruments to be used in the event that this is performed online. The oral examination will be recorded, prior information and authorization by the student. For the review of exams, the Microsoft Teams application will be used. In case the exams are finally presential, they will be written.