



## Information about the subject

**Degree:** Bachelor of Science Degree in Nursing

**Faculty:** Faculty of Medicine and Health Sciences

**Code:** 1211203 **Name:** Physiopathology

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

**Module:** Common basic training

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

**Field of knowledge:** Health sciences

**Department:** Pathology

**Type of learning:** Classroom-based learning

**Languages in which it is taught:** Spanish

### Lecturer/-s:

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Universidad  
Católica de  
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# Course guide

Year 2024/2025  
1211203 - Physiopathology

1212F

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## Module organization

### Common basic training

Subject Matter	ECTS	Subject	ECTS	Year/semester
Anatomy	6,00	Human and Functional Anatomy	6,00	1/1
Physiology	12,00	Human Physiology	6,00	1/2
		Physiopathology	6,00	2/1
Biochemistry	6,00	Clinical Biochemistry	6,00	1/1
Biostatistic	6,00	Biostatistics and Research Methodology	6,00	1/2
Psychology	6,00	Psychology of Care	6,00	1/1
Pharmacology	6,00	Pharmacology	6,00	2/1
Nutrition	6,00	Nutrition and Dietetics	6,00	2/1
ICT	4,50	ICT	4,50	This elective is not offered in the academic year 24/25
English	6,00	English	6,00	1/2
Life support	6,00	Emergency Care and Life Support	6,00	4/1

## Recommended knowledge

Basic knowledge of the structure and function of the human body is recommended.



## 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 To understand the molecular and physiological bases of cells, tissues, organs, and systems.
- R2 To acquire knowledge about the pathophysiological processes and their manifestations.
- R3 To relate risk factors to the pathophysiological alterations that determine states of health and disease in different stages of the life cycle.
- R4 To perform nursing techniques and/or procedures aimed at assessing the physiological status of the individual.



## 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 have demonstrated possession and understanding of knowledge 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	
CB2	Students are able to apply their knowledge to their work or vocation in a professional way and possess the skills usually demonstrated by developing and defending arguments and solving problems within their area of study.				X
CB3	Students have the ability to gather and interpret relevant data (usually within their area of study) to make judgments that include reflection on relevant social, scientific or ethical issues.				X
CB4	That students can convey information, ideas, problems and solutions to both specialized and non-specialized audiences.	X			
CB5	Students have developed those learning skills necessary to undertake further study with a high degree of autonomy.			X	

GENERAL		Weighting			
		1	2	3	4
6	To base interventions in nursing on scientific evidence and on the available means.			X	
9	To promote healthy life spans, to promote taking care of each person by themselves and support the maintenance of preventive and therapeutic measures.			X	
16	To understand the systems of information related to health.	X			



SPECIFIC	Weighting			
	1	2	3	4
1b To know and identify the structure and function of the human body.	X			
2b To understand the molecular and physiological basis of cells and tissues.	X			
10b To know pathophysiological processes and their manifestations and the risk factors that determine the health and disease states in the different stages of their vital cycle.				X



## Assessment system for the acquisition of competencies and grading system

Assessed learning outcomes	Granted percentage	Assessment method
	75,00%	Theoretical written exams
	25,00%	Practical tests and works
	0,00%	Attendance and active participation

### Observations

Observations-In order to pass the course, it will be necessary, but not sufficient, to have obtained 50% of the possible score in the final exam.-In order to pass the course, the student must pass the theoretical part (3.5/7) and have a final score of 5/10.-Criteria for the awarding of Honours Grades: In order to obtain an Honours Grade, it will be necessary to obtain a minimum of 90% of the total evaluation, at the discretion of the teacher of the course.The final theoretical evaluation (final grade) will be awarded according to the criteria of the teacher of the subject and in accordance with the legal percentages.

1.- Final theoretical evaluation (70%):The theoretical evaluation will be carried out at the end of the course, through a final theoretical test and may consist of:-Objective multiple-choice questions, with four answers to choose from (multiple choice). Wrong answers are penalised according to the formula  $A-(E/n-1)$ . Where A: number of correct answers, E: number of errors, n: number of answer options.- Clinical case(s). Practical cases in which the student must identify questions related to the aspects that have been covered in the different topics.The minimum mark for passing the written test will be 5 out of 10.

2.- Practical tests and assignments (10%)Throughout the course, activities will be carried out on each subject with reference to the attention and understanding of the subject and the retention capacity of each student, by means of oral and/or written questions in class and activities aimed at the student's autonomous work outside the classroom.These are activities requested by the teacher through the platform or in the classroom and whose completion is NOT essential in order to be assessed.

3.- Partial exam(s) (20%)

It will be carried out in order to check the student's learning pace. This test will be part of the evaluation. It is not compulsory. It will take place within the timetable of the course on a day and time announced in advance. It will consist of a theoretical and a practical part.

Comments regarding the evaluation of the subject:- For example, a student who has a 2 in the written test and is out of 6, the grade that should appear in the minutes of the exam is a 3.3.-



Students who have passed the exam, but have not passed any of the remaining assessment tools, will be given a 4.5. In the second sitting, students will only have to complete the assignments, seminars, etc. that are pending in order to pass the course.- The student has the right to know the grades of all the assessment tools included in the teaching guide at least one week before the written exam and not on the date of the exam revision.- For students of second or successive enrolments, attendance to tutorials or teaching sessions is not compulsory.

**-DEVELOPMENT OF THE SUBJECT IN SECOND AND SUCCESSIVE REGISTRATIONS:**The teacher responsible for the failed group (second and successive registration), will contact the students through the virtual campus, who will indicate the days and times of the corresponding tutorials. There will be a specific group for students who are not first-time students and a teacher in charge of this group. The teacher in charge of this group will contact the students through the virtual campus, through which he/she will indicate the days and times of the corresponding tutorials. There will be 6 monitoring and tutoring sessions of 2 hours each. In each session, the subject will be developed in such a way as to reinforce the work on the skills that each student needs in order to pass the subject. In the event that group S is larger than 40 students, 2 sessions of 2 hours per week will be established. The evaluation of content will take place in the exam set in the official calendar for this subject. These sessions are available in the specific timetable. The assessment instruments for the subject are detailed below:

1.- Final theoretical assessment (80%):The theoretical evaluation will be carried out at the end of the course, through a final theoretical test and may consist of: Objective multiple-choice questions, with four answers to choose from (multiple choice). Wrong answers are penalised according to the formula  $A-(E/n-1)$ . Where A: number of correct answers, E: number of errors, n: number of answer options.- Clinical case(s). Practical cases in which the student must identify questions related to the aspects that have been covered in the different topics. The minimum mark for passing the written test will be 5 out of 10.2.- Practical tests and assignments (20%)Throughout the course, activities will be carried out on each subject with reference to the attention and understanding of the subject and the retention capacity of each student, by means of oral and/or written questions in class and activities aimed at the student's autonomous work outside the classroom. These are activities requested by the teacher through the platform or in the classroom and whose completion is NOT essential in order to be assessed. The blocks of content and tasks to be developed in each session will be as follows:

**TEMPORARY ORGANISATION OF LEARNING (Students of second or successive enrolments):**BLOCK OF CONTENT/ DIDACTIC UNIT N° OF SESSIONS  
BLOCKS I -III --- NO. OF SESSIONS 3  
BLOCK IV-VI --- N° OF SESSIONS 2  
BLOCK VII-IX --- N° OF SESSIONS 1

**-DEVELOPMENT OF THE COURSE FOR INTERNATIONAL MOBILITY STUDENTS:**The international mobility student should contact the lecturer responsible for the course to inform him/her at the beginning and at the end of the course of this circumstance. The evaluation of contents will take place in the exam set in the official calendar for this subject. These sessions are available in the specific timetable.1.- Theoretical evaluation (80%):The theoretical evaluation will take place at the end of the course, through a final theoretical test and may consist of: 1.may





consist of:-Multiple answer objective questions, with four answers to choose one (multiple choice). The incorrect answers are penalised according to the formula  $A - (E/n - 1)$ . Where A: number of correct answers, E: number of errors, n: number of answer options.- Clinical case(s). Practical cases in which the student has to identify questions related to the aspects that have been related to the aspects that have been covered in the different topics. The minimum mark for passing the written test will be 5 out of 10.2.- Practical tests and assignments (20%) Students will be provided with the directed work of the subject so that they can work on it independently and work autonomously and can be delivered through the ucv platform in the space provided for this purpose and within the deadlines and within the deadlines established for this purpose. This does NOT IN ANY CASE replace the final written assessment test. final written assessment.

**CRITERIA FOR THE AWARDING OF HONOURS:** According to article 22 of the UCV's Regulations for the Evaluation and Grading of Subjects, the mention of "Matrícula de Honor" may be awarded by the lecturer responsible for the subject to students who have obtained the grade of "Outstanding". The number of "Matrícula de Honor" mentions that may be awarded may not exceed five percent of the students included in the same official transcript, unless this is less than 20, in which case only one "Matrícula de Honor" may be awarded.

### MENTION OF DISTINCTION:

In accordance with the regulations governing the assessment and grading of subjects in force at UCV, the distinction of "Matrícula de Honor" (Honours with Distinction) may be awarded to students who have achieved a grade of 9.0 or higher. The number of "Matrículas de Honor" (Honours with Distinction) may not exceed five percent of the students enrolled in the group for the corresponding academic year, unless the number of enrolled students is fewer than 20, in which case a single "Matrícula de Honor" (Honours with Distinction) may be awarded. Exceptionally, these distinctions may be assigned globally across different groups of the same subject. Nevertheless, the total number of distinctions awarded will be the same as if they were assigned by group, but they may be distributed among all students based on a common criterion, regardless of the group to which they belong. The criteria for awarding "Matrícula de Honor" (Honours with Distinction) will be determined according to the guidelines stipulated by the professor responsible for the course, as detailed in the "Observations" section of the evaluation system in the course guide.

## 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 abilities, skills and knowledge in the classroom.
- M2 Group work sessions supervised by the teacher. Case study, diagnostic analysis, problems, field study, computer room, visits, data search, libraries, network, Internet, etc. Significant construction of knowledge through student interaction and activity.



- M3 Supervised monographic sessions with shared participation.
- M5 Activities developed in spaces and with specialized equipment.
- M6 Personalized attention and in small groups. Period of instruction and/or orientation carried out by a tutor with the objective of reviewing and discussing the materials and topics presented in the classes, seminars, readings, completion of assignments, etc.
- M7 Set of oral and/or written tests used in the initial, formative or summative evaluation of the student.
- M8 Student study: Individual preparation of readings, essays, problem solving, seminars, papers, memoirs, etc. To expose or deliver in the theoretical classes, practical classes and/or small group tutorials. Work done on the university platform ([www.plataforma.ucv.es](http://www.plataforma.ucv.es)).
- M9 Group preparation of readings, essays, problem solving, papers, memoirs, etc. To present or deliver in the theoretical classes, practical classes, seminars and/or small group tutorials. Work done on the university platform ([www.plataforma.ucv.es](http://www.plataforma.ucv.es)).



## IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
In-campus interactive lecture M1	R2	40,00	1,60
Practice Classes M2	R2, R3	12,00	0,48
Laboratory M5	R1, R4	4,00	0,16
Tutorial M6	R2	2,00	0,08
Evaluation M7	R1, R2, R3	2,00	0,08
<b>TOTAL</b>		<b>60,00</b>	<b>2,40</b>

## LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Student's self-employment M8	R1, R2, R3	60,00	2,40
Group work M9	R2, R3	30,00	1,20
<b>TOTAL</b>		<b>90,00</b>	<b>3,60</b>



## Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
PART I. INTRODUCTION TO PATHOPHYSIOLOGY	Alteration of homeostasis Physiopathology of wound healing Immune system. Physiopathology of infections.
PART II. CARDIOVASCULAR AND HAEMATOLOGICAL PHYSIOPATHOLOGY.	Cardiac pathophysiology. Coronary ischemia: angina pectoris and acute coronary syndrome. Circulatory insufficiency: cardiac insufficiency and shock. Valvular pathology. Disorders of the cardiac automatism. Pathology related to blood pressure.  Vascular physiopathology. Acute and chronic arterial insufficiency. Arterial ischemia syndrome. Venous insufficiency and valvular pathology. Thromboembolic phenomena. Lymphatic drainage disorders.  Hematological physiopathology. Erythrocyte, leukocyte
PART III. RESPIRATORY PATHOPHYSIOLOGY	Semiology of respiratory pathology. Restrictive and obstructive ventilatory disorders. Respiratory failure. Pathology of parenchyma, pleura, mediastinum and pulmonary circulation.
PART IV. RENAL AND UROLOGICAL PHYSIOPATHOLOGY	Semiology of renal pathology. Abnormalities in renal function: Renal Insufficiency. Glomerular, tubular and tubulo-interstitial pathology. Pathology of the urinary tract. Physiopathology of hydroelectrolytic balance and acid base.



## PART V. DIGESTIVE PATHOPHYSIOLOGY

Semiology of digestive pathology. Motility and secretion disorders. Diseases of the esophagus, stomach and intestines. Alterations in digestion and absorption. Hepatobiliary and pancreatic pathology. Vascular pathology of the digestive system. Pathology of the peritoneum.

## PART VI. METABOLIC AND ENDOCRINE PATHOPHYSIOLOGY

Physiopathology of endocrine disorders. Pathology of the hypothalamus-hypophysis axis. Thyroid pathology. Adrenal pathology. Gonadal pathology. Disorders in the metabolism of carbohydrates, proteins and lipids.

## PART VII. NEUROLOGIC PATHOPHYSIOLOGY. SYNESTHETIC PATHOPHYSIOLOGY.

General pathology of the nervous system. Pathology of motor coordination. Extrapyramidal system pathology. Pathology of sna and snp. Pathology of the spinal cord. Pathology of the cerebral cortex. Pathology of the state of consciousness. Pathology of the lcr. Neurovascular pathology.. Sensitivity pathology.

## PART VIII. RHEUMATOLOGIC PATHOPHYSIOLOGY

Pathophysiology of rheumatic diseases.

## PART IX. ONCOLOGIC PATHOPHYSIOLOGY

Pathophysiology of oncology diseases. GENERALITIES.



## Temporary organization of learning:

Block of content	Number of sessions	Hours
PART I. INTRODUCTION TO PATHOPHYSIOLOGY	4,00	8,00
PART II. CARDIOVASCULAR AND HAEMATOLOGICAL PHYSIOPATHOLOGY.	4,00	8,00
PART III. RESPIRATORY PATHOPHYSIOLOGY	4,00	8,00
PART IV. RENAL AND UROLOGICAL PHYSIOPATHOLOGY	3,00	6,00
PART V. DIGESTIVE PATHOPHYSIOLOGY	3,00	6,00
PART VI. METABOLIC AND ENDOCRINE PATHOPHYSIOLOGY	3,00	6,00
PART VII. NEUROLOGIC PATHOPHYSIOLOGY. SYNESTHETIC PATHOPHYSIOLOGY.	3,00	6,00
PART VIII. RHEUMATOLOGIC PATHOPHYSIOLOGY	3,00	6,00
PART IX. ONCOLOGIC PATHOPHYSIOLOGY	3,00	6,00



## References

### Basic bibliography:

1. Digital format (clinical Key):

-Kumar V. Robbins and Cotran. Structural and functional pathology. 10th ed. Elsevier España, S.L.U.; 2021.

-Kumar V. Robbins. Human pathology. 10th ed. Elsevier España, S.L.U.; 2018.

Von Domarus A. Farreras Rozman. Medicina Interna. 19th ed. Elsevier España, S.L.U.; 2020.

Paper format (Manual):

-Porth CM. Physiopathology: health-disease: a conceptual approach. Buenos Aires: Médica Panamericana; 2014.

-De Castro S. Manual de Patología General. 6th ed. Masson; 2006

**Complementary bibliography:** Harrison. Principios de Medicina Interna. 16ª ed. McGraw Hill 2006 · Rozman C. Farreras/Rozman: Medicina Interna. 16ª ed. Barcelona · Robbins. Patología humana. Elsevier. Masson. España