



## Information about the subject

**Degree:** Bachelor of Science Degree in Physiotherapy

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

**Code:** 240209 **Name:** General Procedures of Intervention II

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

**Module:** MODULE 2: SPECIFIC

**Subject Matter:** General Procedures for Intervention in Physiotherapy **Type:** Compulsory

**Field of knowledge:** Health Sciences

**Department:** Physiotherapy

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

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

### Lecturer/-s:

242A	<u>Jorge Alarcón Jiménez</u> ( <b>Responsible Lecturer</b> )	jorge.alarcon@ucv.es
	<u>Eloy Jaenada Carrilero</u>	eloy.jaenada@ucv.es
	<u>Jaime Gasco Lopez De Lacall</u>	jaime.gascolopez@ucv.es
	<u>Juan Vicente Mampel</u>	juan.vicente@ucv.es
242Q	<u>Jorge Alarcón Jiménez</u> ( <b>Responsible Lecturer</b> )	jorge.alarcon@ucv.es
	<u>Eloy Jaenada Carrilero</u>	eloy.jaenada@ucv.es
	<u>Jaime Gasco Lopez De Lacall</u>	jaime.gascolopez@ucv.es



242Q	<u>Juan Vicente Mampel</u>	juan.vicente@ucv.es
283DC	<u>Jorge Alarcón Jiménez</u> <b>(Responsible Lecturer)</b>	jorge.alarcon@ucv.es
	<u>Eloy Jaenada Carrilero</u>	eloy.jaenada@ucv.es
	<u>Jaime Gasco Lopez De Lacall</u>	jaime.gascolopez@ucv.es
	<u>Juan Vicente Mampel</u>	juan.vicente@ucv.es
473DF	<u>Jorge Alarcón Jiménez</u> <b>(Responsible Lecturer)</b>	jorge.alarcon@ucv.es
	<u>Eloy Jaenada Carrilero</u>	eloy.jaenada@ucv.es
	<u>Jaime Gasco Lopez De Lacall</u>	jaime.gascolopez@ucv.es
	<u>Juan Vicente Mampel</u>	juan.vicente@ucv.es



## Module organization

### MODULE 2: SPECIFIC

Subject Matter	ECTS	Subject	ECTS	Year/semester
Fundamentals of Physical Therapy	6,00	Fundamentals of Physiotherapy	6,00	1/1
Assessment in Physiotherapy	6,00	Assessment in Physiotherapy	6,00	1/2
General Procedures for Intervention in Physiotherapy	12,00	General Procedures of Intervention I	6,00	2/1
		General Procedures of Intervention II	6,00	2/2
Physiotherapy in clinical specialties	6,00	Medical-Surgical Conditions and their Treatments	6,00	2/2
Specific Methods of Intervention in Physical Therapy	30,00	Cardiocirculatory and Respiratory Physiotherapy	6,00	3/1
		Physiotherapy of the Locomotive System I	6,00	2/2
		Physiotherapy of the Locomotive system II	6,00	3/1
		Physiotherapy of the Nervous System	6,00	2/2
		Sports Physiotherapy	6,00	3/1
Kinesitherapy	6,00	Kinesitherapy	6,00	2/1
Legislation, Public Health and Health Administration	12,00	Community Physiotherapy and Public Health	6,00	3/1



Legislation, Public  
Health and Health  
Administration

Social Morality. Ethics

6,00

4/1

## Recommended knowledge

Not precise

## 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 The student relates the different physical and manual means for each pathology.
- R2 Looks for bibliographical information from different sources and knows how to analyze it with a critical and constructive spirit.
- R3 Critically analyses the work.
- R4 The student is able to write a comprehensible text, organized on topics related to physiotherapy and work in a group.
- R5 Performs applications of electrotherapy techniques for specific pathologies.
- R6 Knows the physiological effects of electricity and related therapies on the human body.
- R7 Knows and reasons about the different purposes of physical means as treatment and diagnosis.



## 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		
CB2	Students know how 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	Students can convey information, ideas, problems and solutions to both specialized and non-specialized audiences.		X		
CB5	Students develop those learning skills necessary to undertake further studies with a high degree of autonomy.		X		
GENERAL		Weighting			
		1	2	3	4
CG1	Students know the methods, procedures and physiotherapeutic actions, for the free exercise of the profession.			X	
CG3	Correct application of therapeutics in re-education and functional recovery.		X		
SPECIFIC		Weighting			
		1	2	3	4



CE5	Students know the physical bases of the different physical agents and their applications in Physiotherapy.					X
CE6	Students know the principles and applications of measurement procedures based on biomechanics and electrophysiology.					X
CE9	Students assimilate theories of communication and interpersonal skills.	X				
CE11	Students identify the factors involved in teamwork and leadership situations.	X				
CE13	The structural, physiological, functional and behavioral changes that occur as a result of the intervention of physiotherapy.		X			
CE15	General physiotherapeutic procedures: Kinesitherapy, Massage and Massage Therapy, Electrotherapy, Magnetic Therapy, Ergotherapy, Hydrotherapy, Balneotherapy, Climatotherapy, Thalassotherapy; Thermotherapy, Cryotherapy, Vibrotherapy, Phototherapy, Pressotherapy, and the derivatives of other physical agents					X
CE29	Students assess the functional state of the patient/user, considering the physical, psychological and social aspects.		X			
CE48	Students manifest a high degree of self-concept, with optimal self-acceptance, without self-centeredness but without prejudices.		X			
CE51	Show respect, appreciation and sensitivity to the work of others.		X			
CE52	Develop the ability to organize and lead work teams effectively and efficiently.	X				

TRANSVERSAL		Weighting			
		1	2	3	4
CT1	Decision-making		X		
CT2	Problem solving.			X	
CT3	Capacity for organization and planning.			X	
CT4	Analysis and synthesis capacity.		X		
CT5	Oral and written communication in the native language.			X	



CT6	Information management capacity.			X	
CT7	Computer skills related to the field of study.	X			
CT8	Knowledge of a foreign language.	X			
CT9	Ethical commitment.			X	
CT10	Teamwork.				X
CT11	Interpersonal relationship skills.			X	
CT12	Work in an interdisciplinary team	X			
CT13	Critical Reasoning			X	
CT14	Work in an international context.	X			
CT15	Recognition of diversity and multiculturalism	X			
CT16	Motivation for quality			X	
CT17	Adaptation to new situations.	X			
CT18	Creativity	X			
CT19	Autonomous learning			X	
CT20	Initiative and entrepreneurship			X	
CT21	Leadership.	X			
CT22	Knowledge of other cultures and customs	X			
CT23	Sensitivity to environmental issues.			X	



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

Assessed learning outcomes	Granted percentage	Assessment method
	20,00%	OPEN QUESTIONS: Written exam in which theoretical knowledge and the student's ability to relate, integrate and express it coherently in written language are evaluated. It allows the following generic or transversal skills to be assessed: 4 Capacity for analysis and synthesis. 3 Capacity for organisation and planning. 5 Oral and written communication in the native language. 8 Knowledge of a foreign language. 2 Problem-solving 19 Autonomous learning.
	30,00%	TEST TYPE: Multiple choice test with one correct answer out of five possible ones. It allows the student to know in greater detail the contents acquired by him/her. It allows the following generic or transversal competences to be assessed: 2 Problem solving 1 Decision making 13 Critical thinking
	10,00%	PRACTICES: Oral test in which the student is asked to solve practical exercises, clinical cases or problems about the knowledge of the different subjects. It assesses the following generic or transversal competences: 4 Analysis and synthesis capacity. 3 Capacity for organisation and planning. 7 IT Knowledge. 6 Information management skills. 2 Problem-solving 1 Decision-making. 13 Critical thinking. 19 Self-directed learning.





10,00%	<p><b>WORKS:</b> The student, individually or in a group, elaborates a revision or research topic and presents it, in writing, for the evaluation by the teacher. The following generic or transversal competences are valued: 4 Capacity for analysis and synthesis. 3 Capacity for organisation and planning. 7 Computer skills. 6 Information management skills. 10 Teamwork. 14 Working in an international context. 11 Interpersonal skills. 13 Critical thinking. 19 Autonomous learning. 18 Creativity. 21 Leadership. 20 Initiative and entrepreneurship. 16 Motivation for Quality. 70 Maintaining an attitude of learning and improvement. 72 Knowing one's own skills and limitations.</p>
30,00%	<p><b>PRACTICAL EXAM:</b> The student is faced with a test in which s/he must demonstrate through practical application the acquisition of certain knowledge. For example, histological or anatomopathological diagnosis, image interpretation or diagnostic tests. This test evaluates the following generic or transversal skills: 13 Critical reasoning. 19 Autonomous learning.</p>

## Observations

Both the theoretical exam and the practical exam must be passed, and the final grade must be greater than 5.

To access the practical exam you must pass the theoretical exam.

To pass the subject it will be mandatory to pass all the proposed items. Individual and/or group work will be continuously evaluated throughout the semester based on the development of the practices (10% of the final grade).

A portfolio of the practical sessions and a critical analysis of a clinical guide related to the subject will be made. Late work is not accepted

-Attendance at theoretical and practical classes is mandatory and you cannot pass the first call if you do not have 80% of the practical sessions and seminars.

Second call.

The value of the exam is 50%. Being the test type (30%) and the development questions (20%), the grade of the partial exam is not kept.

The percentage of point 2 Individual and/or group work (10% of the final grade) is retained from the first call. But neither group work nor assistance can be delivered if they were not done within the corresponding deadlines.

### EVALUATION CRITERIA FOR SECOND REGISTRATION AND SUBSEQUENT REGISTRATIONS

There will be six mandatory face-to-face tutorials, and it will not be possible to take the first call if



you do not attend at least 4 sessions. The percentages of grades are similar to the 1st enrollment evaluation, with all points being mandatory. Attendance at theoretical classes is recommended as well as contacting the teacher the first week of class.

#### CRITERIA FOR GRANTING HONORABLE REGISTRATION:

Explain specific criteria indicated for the subject and faculty to which the degree is assigned and in accordance with the general regulations that indicate that only one honorary registration can be given for every 20 students, not for a fraction of 20, with the exception of the case of groups of less than 20 students in total, in which registration can be given.

#### 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 Master class Problem solving Exposition of contents by the teacher. Explanation of knowledge and skills
- M2 Case resolution: Analysis of sample realities - real or simulated - that allow the student to connect theory with practice, to learn from models of reality or to reflect on the processes used in the cases presented.
- M4 Personalized attention. Period of instruction and/or guidance by a tutor with the aim of analyzing with the student their work, activities and their evolution in learning the subjects.
- M5 Set of tests carried out to know the degree of acquisition of knowledge and skills of the student.
- M7 Discussion and problem solving.



- M11 Oral presentation
- M12 Group work: Group work sessions supervised by the teacher. Knowledge construction through student interaction and activity.
- M14 Group work to search, discuss and filter information about the subjects
- M15 Seminar, supervised monographic sessions with shared participation
- M16 Student's study: Individual preparation of readings, essays, problem solving, seminars.



## IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical lessons M1, M7, M15	R1, R4, R6, R7	35,00	1,40
Practice lessons M2, M7, M11, M12	R3, R5	15,00	0,60
Seminar M15	R2, R3	2,00	0,08
Office Hours M4	R1, R6	5,00	0,20
Assessment M5, M11	R1, R2, R3, R4, R5, R6, R7	3,00	0,12
<b>TOTAL</b>		<b>60,00</b>	<b>2,40</b>

## LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Autonomous work M16	R1, R4, R5, R7	68,00	2,72
Group work M14	R2, R4	22,00	0,88
<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
Didactic Unit I Introduction, generalities.	Unit: 1 Electrotherapy concept. Physicochemical and physiological effects.
Didactic Unit II: Electromagnetic physical agents, Low Frequency and direct current.	Unit 2 Direct Current / Galvanization and Iontophoresis. Unit 3 Basics of downward currents. Analgesic currents, TENS. Unit 4 Electrostimulation currents. Unit 5 Electrodiagnosis and biofeedback
Didactic unit III: Medium frequency and High Frequency electromagnetic physical agents.	Unit 6 Medium frequency currents. Unit 7 High frequency currents: short wave, microwave. Diathermy
Didactic unit IV. Ultrasonic therapy, Phototherapy, electromagnetic fields	Unit 8 Ultrasonic Therapy Unit 9 Introduction to Ultrasound Unit 10 Phototherapy, magnetotherapy
Didactic unit V: Practices	Practice 1: Generalities, direct current. Practice 2: Low frequency: Electroanalgesia Practice 3: Electrostimulation, electrodiagnosis, biofeedback Practice 4: Medium Frequency, High Frequency, Ultrasonic Therapy Practice 5: Ultrasound



## Temporary organization of learning:

Block of content	Number of sessions	Hours
Didactic Unit I Introduction, generalities.	3,00	6,00
Didactic Unit II: Electromagnetic physical agents, Low Frequency and direct current.	9,00	18,00
Didactic unit III: Medium frequency and High Frequency electromagnetic physical agents.	6,00	12,00
Didactic unit IV. Ultrasonic therapy, Phototherapy, electromagnetic fields	5,00	10,00
Didactic unit V: Practices	7,00	14,00

## References

- RODRIGUEZ MARTIN: Electroterapia en Fisioterapia, Panamericana, Madrid
- RIOJA, J.: Electroterapia y electrodiagnóstico. Universidad de Valladolid. Valladolid, 1993
- MORA, E.: Electroterapia interferencial. Fergisa. Madrid, 1989
- CAMERON MH. Agentes físicos en rehabilitación. De la investigación a la práctica. 3ª Edición. Elsevier. Barcelona España.2009.
- ALBORNOZ M, MEROÑO J. Procedimientos generales de fisioterapia. Práctica basada en la evidencia. Elsevier. Barcelona. 2012.
- ALBORNOZ CABELLO M, MAYA J, TOLEDO JV. Electroterapia práctica. Elsevier Health Sciences Spain - T; 2016 439 p.
- WATSON T. Elecatroterapia práctica basada en la evidencia. Elsevier; 2009