Information about the subject

Degree: Bachelor of Science Degree in Physiotherapy

Faculty: Faculty of Medicine and Health Sciences

Code: 240329 **Name:** Healh Research and Documentation

Credits: 6,00 **ECTS Year:** 3 **Semester:** 2

Module: MODULE 5: UNIVERSITY-SPECIFIC

Subject Matter: Health Research and Documentation **Type:** Compulsory

Field of knowledge: Health Sciences

Department: Biostatistics, Epidemiology, and Public Health

Type of learning: Classroom-based learning

Languages in which it is taught: English, Spanish

Lecturer/-s:

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Module organization

MODULE 5: UNIVERSITY-SPECIFIC

Subject Matter	ECTS	Subject	ECTS	Year/semester
Social Sciences	6,00	Science, Reason and Faith	6,00	2/1
Health Research and Documentation	6,00	Healh Research and Documentation	6,00	3/2
Training in complementary techniques	6,00	Radiology	6,00	2/2
Training in physiotherapeutic techniques	30,00	Geriatric Physiotherapy	6,00	4/1
		Manual Therapy	6,00	3/2
		Paediatric Physiotherapy	6,00	3/2
		Preventive and Evolutionary Physiotherapy	6,00	3/2
		Special Procedures in Physiotherapy	6,00	3/2

Recommended knowledge

None required.

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 Knows the Scientific Method and its application in research in Physiotherapy.

R2 The student acquires criteria to select the sources of information in Physiotherapy and Health Sciences.

R3 The student performs a critical reading of scientific articles.

R4 The student develops a scientific research protocol.

R5 Knows the types of written and oral scientific communication.

R6 Knows the fundamental concepts of epidemiology.

R7 The student is able to develop a scientific report: process, functions and types.

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	

SPECIFIC		Weighting			
		1	2	3	4
CE11	Students identify the factors involved in teamwork and leadership situations.		x		
CE14	Students identify the theoretical bases of Physiotherapy as a science and profession. The models of action in Physiotherapy. The theoretical bases of the assessments, tests and functional verifications: knowledge of their modalities and techniques as well as the scientific evaluation of their utility and effectiveness. The diagnosis of Physiotherapy. Methodology of the research applied to Physiotherapy.				x

CE17	Students manage research and evaluation methodologies that allow the integration of theoretical perspectives and research experiences in the design and implementation of effective physiotherapy.				x
CE18	Students resort to theories that support problem-solving capacity and clinical reasoning.			x	
CE20	Students comprehend the implications of organisational arrangements and working models.		x		
CE25	The ethical, legal and professional conditions that make up the practice of Physiotherapy.			x	
CE39	Students incorporate scientific research and evidence-based practice as a professional culture This includes: Establishing lines of research in the field of the competences of the profession and disseminating them in the research group; participating in the research group of the environment; disseminating the research work and its conclusions in the scientific and professional community; establishing physiotherapy care protocols based on practice by scientific evidence; promoting all those professional activities that involve the dynamization of research in physiotherapy				x
CE41	Students keep the foundations of the knowledge, skills and attitudes of the professional competences updated, through a process of continuous training (throughout life); to critically analyse the methods, protocols and treatments of the care in Physiotherapy and to ensure that they are adapted to the evolution of scientific knowledge.			x	
CE47	Students maintain an attitude of learning and improvement. This includes expressing interest and acting in a constant search for information and professional improvement, committing to contribute to professional development in order to improve practice competence and maintain the status that corresponds to a qualified and regulated profession.				x
CE50	Students collaborate and cooperate with other professionals, enriching each other This includes: resolving most situations by establishing direct and assertive communication and seeking consensus; assisting other health professionals in professional practice; knowing interprofessional boundaries and employing appropriate referral procedures.		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
R1, R2, R3, R4, R5, R6, R7	30,00%	RESEARCH PROJECT: Written document of the Final Degree's Project (TFG).
R1, R2, R3, R4, R5, R6, R7	10,00%	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.
R1, R2, R3, R4, R5, R6, R7	40,00%	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
R1, R2, R3, R4, R5, R6, R7	0,00%	WORKS: 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.

R1, R2, R3, R4, R5, R6, R7	20,00%	PRACTICAL EXAM: 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.
R1, R2, R3, R4, R5, R6, R7	0,00%	PRESENTATION: The student develops, through an oral presentation, supported or not by audiovisual means, a subject or work commissioned by the teacher. This is the method of evaluation of the Final Degree's Project. At the end of the presentation, the teacher or the audience can ask questions.
R1, R2, R3, R4, R5, R6, R7	0,00%	ATTENDANCE AND PARTICIPATION IN CLASS: The teacher evaluates the participation, involvement and progression of the student's acquisition of knowledge and skills during the theoretical and practical classes. It will not exceed 5% of the final grade.

Observations

Note: In order to pass the course it will be mandatory to obtain at least a 5 out of 10 in each of the theoretical and practical parts.
The evaluation instruments used to measure the achievement of the learning results are as follows:
1- Research project: elaboration of a research proposal.
2- Open questions: exam with 4 short development questions (2 research and 2 documentation questions).
3- Multiple-choice test: it will consist of an exam with questions with 5 answers, one of which will be true.
4- Practical exam: it will consist of a practical exam of bibliographic searches.

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
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
M16	Student's study: Individual preparation of readings, essays, problem solving, seminars.

IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Theoretical lessons M1, M11, M12, M14, M16	R1, R2, R3, R4, R5, R6, R7	40,00	1,60
Practice lessons M1, M11, M12, M14, M16	R1, R2, R3, R4, R5, R6, R7	12,00	0,48
Office Hours M11, M16	R1, R2, R3, R4, R5, R6, R7	5,00	0,20
Assessment M11, M12, M14, M16	R1, R2, R3, R4, R5, R6, R7	3,00	0,12
TOTAL		**60,00**	**2,40**

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
Autonomous work M11, M16	R1, R2, R3, R4, R5, R6, R7	60,00	2,40
Group work M12, M14	R1, R2, R3, R4, R5, R6, R7	30,00	1,20
TOTAL		**90,00**	**3,60**

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
DIDACTIC UNIT 1. Designing an investigation Stages	·Stages. ·Choice of the subject of study. ·Formulation of hypotheses. ·Main strategies of quantitative and qualitative analysis. ·Selection of the population and collection of information. ·Classification and selection criteria.
DIDACTIC UNIT 2. Development of a scientific report	· Scientific report: process, functions and types.
DIDACTIC UNIT 3. Written and oral communication	·Scientific communication in Physiotherapy.
DIDACTIC UNIT 4. General and specific health literature on Physical Therapy	·Sources of information. ·Methodology for the search of bibliographic information. ·Search in national and international databases. ·Bibliographic references and citation systems in Health Sciences.
DIDACTIC UNIT 5. Evidence-Based Physical Therapy Practice	·Search for resources for Evidence-Based Physiotherapy.

Temporary organization of learning:

Block of content	Number of sessions	Hours
DIDACTIC UNIT 1. Designing an investigation Stages	10,00	20,00
DIDACTIC UNIT 2. Development of a scientific report	6,00	12,00
DIDACTIC UNIT 3. Written and oral communication	5,00	10,00
DIDACTIC UNIT 4. General and specific health literature on Physical Therapy	7,00	14,00
DIDACTIC UNIT 5. Evidence-Based Physical Therapy Practice	2,00	4,00

References

Abad E, Monistrol O, Altarribas E, Paredes A. Lectura crítica de la literatura Científica. Enfermeria Clínica. 2003; 13(1): 32-40.

Aleixandre Benavent R. Fuentes de información en ciencias de la salud en Internet. Panace@. 2011; XII(33): 112-120.

Aleixandre-Benavent R, González Alcaide G, González de Dios J, Alonso-Arroyo A. Fuentes de información bibliográfica (I). Fundamentos para la realización de búsquedas bibliográficas. Acta Pediátrica Española. 2011; 69(3): 235-40.

Alpáñez López, Mª del Carmen. Escritura biomédica: el estilo Vancouver: guía práctica para la citación bibliográfica en ciencias de la salud. Barcelona: Glosa; 2020.

Argimón Pallás JM, Jiménez Villa J. Métodos de investigación clínica y epidemiológica. 5ª ed. Madrid: Elsevier; 2019.

Borenstein M, Hedges LV, Higgins JPT, Rothstein HR. Introduction to Meta-Analysis. 2nd ed. Philadelphia: John Wiley & Sons; 2021.

Cid Leal P, Perpinyà Morera R. Cómo y dónde buscar fuentes de información. Barcelona: Universitat Autònoma de Barcelona; 2013.

Cordón García JA et al. Las nuevas fuentes de información: la búsqueda informativa, documental y de investigación en el ámbito digital. Madrid: Pirámide; 2016.

Corrillero Bravo A. Bibliografía y gestores bibliográficos: normas de Vancouver. Madrid: Formación Alcalá; 2022.

Fernández Muñoz E, García AM. Metodología de la investigación en ciencias de la salud: búsqueda y lectura crítica de artículos científicos. 3ª ed. Barcelona: Signo; 2007.

Gallego Izquierdo T, Rebollo Roldán J. La Fisioterapia como ciencia. En: Gallego Izquierdo T. Bases teóricas y fundamentos de la Fisioterapia. Madrid: Médica Panamericana; 2007. p. 73-103.

Hernández Sampieri R. Fundamentos de metodología de la investigación. 21ª ed. Madrid: McGraw-Hill; 2020.

Higgins JPT et al. (eds.). Cochrane handbook for systematic reviews of interventions. Hoboken, NJ: Wiley-Blackwell; 2019.

Hurley WL, Denegar CR, Hertel J. Research methods: a framework for evidence-based clinical practice. Philadelphia: Wolters Kluwer/Lippincott Williams & Wilkins Health; 2011.

Jiménez J, Argimón JM, Martín A, Vilardell M. Publicación Científica Biomédica: cómo escribir y publicar un artículo de investigación. 2ª ed. Barcelona: Elsevier; 2015.

Llorca Díaz J. Elaboración de proyectos de investigación sanitaria. 5ª ed. Barcelona: Signo; 2020.

López Yepes J, Osuna Alarcón R (coords.). Manual de Ciencias de la Documentación. Madrid: Pirámide; 2011.

Martín González Yolanda (dir.). Descripción y recuperación de la información. Madrid: Pirámide; 2014.

Martínez-Almagro A, Aleixandre Benavent R, Fernández Aparicio T, Ríos Díaz JN, Coy M.

Terminología, método científico y estadística aplicada en Ciencias de la Salud. Murcia: Morphos Ediciones; 2007.
Medina-Aguerrebere P. Fuentes de información médica. Barcelona: Editorial UOC; 2012.
Quintanilla Cobián L, García-Gallego C, Rodríguez-Fernández R, Fontes de Gracia S, Sarriá Sánchez E. Fundamentos de investigación en psicología. 2ª ed., adaptada a 7ª ed. normas APA. Madrid: Universidad Nacional de Educación a Distancia; 2020.
Rebollo Roldán J, García Pérez R. La investigación en Fisioterapia. En: Gallego Izquierdo T. Bases teóricas y fundamentos de la Fisioterapia. Madrid: Médica Panamericana; 2007. p. 105-163.
Ruiz Olabuénaga JA. Metodología de la investigación cualitativa. Bilbao: Universidad de Deusto; 2009.
Straus SE. Medicina basada en la Evidencia: cómo practicar y enseñar la MBE. 5ª ed. Madrid: Elsevier España; 2019.