Information about the subject

Degree: Bachelor of Science Degree in Psychology

Faculty: Faculty of Psychology

Code: 291202 **Name:** Psychometrics

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

Module: RESEARCH FUNDAMENTALS AND METHODOLOGY

Subject Matter: STATISTICS **Type:** Basic Formation

Field of knowledge: Health Sciences

Department: Personality Psychology, Treatments, and Methodology

Type of learning: Classroom-based learning / Online

Languages in which it is taught: Spanish

Lecturer/-s:

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Module organization

RESEARCH FUNDAMENTALS AND METHODOLOGY

Subject Matter	ECTS	Subject	ECTS	Year/semester
STATISTICS	12,00	Fundamentals and Analysis of Data	6,00	1/1
		Psychometrics	6,00	2/1
RESEARCH METHODS, DESIGNS AND TECHNIQUES	6,00	Research Methodology	6,00	4/1
MODERN LANGUAGE	6,00	Scientific English	6,00	1/1

Recommended knowledge

It is recommended to have acquired the skills established in the subject of Fundamentals and Data Analysis

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   Building a work team in order to practically apply the knowledge acquired through the presential activities and individual work.

R2   Acquiring a correct mental representation of the theoretical-practical contents of the module.

R3   Working in groups in order to carry out different practical activities such as the creation and application of a test in order to measure and psychological construct.

R4   Obtaining and organizing information from different sources (journals, books, videos, Internet) in order to create a test or for other purposes.

R5   Using specific software for the resolution of problems related to the contents of the module.

R6   Assessing the different quality criteria of a psychological test.

R7   Understanding the importance of the information offered in a test's manual and using it correctly.

Universidad
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Course
guide

Year 2024/2025
291202 - Psychometrics

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):

SPECIFIC		Weighting			
		1	2	3	4
CE1	Analyzing needs and requests of addressee functions in different contexts.	x			
CE4	Analyzing and measuring variables (personality, intelligence and other aptitudes) and cognitive, emotional, psychobiological and behavioral processes .				x
CE5	Identifying differences, problems and needs.		x		
CE7	Analyzing and assessing interaction processes, group dynamics and group and inter-group structures.	x			
CE12	Selecting and correctly using tools, products and services and identifying those people and group concerned.		x		
CE13	Designing and adapting tools, products and services to requirements and restrictions.				x
CE14	Contrasting and checking tools, products and services (prototypes and pilot studies).				x
CE15	Defining objectives and devising action plans according to action goals. (prevention, treatment, rehabilitation, insertion, support).	x			
CE16	Choosing adequate psychological intervention techniques.	x			
CE18	Putting into practice direct intervention strategies and methods: psychological advice, therapy, negotiation mediation...	x			
CE25	To be able to measure and to collect relevant data for the evaluation of the interventions		x		
CE26	Writing oral and written reports.				x
CE27	Knowing and adapting to the psychology code of ethics.		x		
CE35	To know research methods and data analysis techniques.				x

TRANSVERSAL		Weighting			
		1	2	3	4
CT1	Capacity to analyze and synthesize.		x		
CT2	Capacity to organize and plan.		x		
CT3	Mastering Spanish oral and written communication.		x		
CT4	Command of a foreign language.	x			
CT5	Knowing and applying Basic ITC skills related to Psychology.				x
CT6	Capacity to manage information (capacity to look for and analyze information coming from different types of sources)		x		
CT7	Problem solving.				x
CT9	Capacity to work in team.			x	
CT12	Interpersonal skills.			x	
CT14	Critical capacity.				x
CT15	Ethics.				x
CT16	Capacity to develop and update competences, skills and knowledge following professional standards.	x			
CT18	Capacity to produce new ideas (creativity).			x	
CT25	Self-criticism ability: being able to critically assess one's performance.	x			
CT30	Social commitment.	x			
CT35	Being able to develop audio-visual presentations.	x			
CT36	Being able to collect information using different kinds of sources.		x		

Assessment system for the acquisition of competencies and grading system

In-class teaching

Assessed learning outcomes	Granted percentage	Assessment method
R2, R3, R5, R6, R7	60,00%	Oral and/or written tests employed in initial, training and/or summative student assessment.
R1, R2, R3, R4, R5, R6, R7	10,00%	Attendance and active participation: lessons, group assignments and tutoring sessions. It will be monitored and registered by the teacher.
R2, R3, R5, R6	30,00%	Group assignments.

Observations

Notes:The written exam will consist of a theoretical and a practical part. The form provided by the teacher and a calculator with statistical functions will be used to perform this test.In order to pass the course the student must pass the different evaluation systems (written exam, attendance and active participation and group work) separately. Criteria for the award of honors:Earn 9.0 points or higher and evidence levels of excellence in all competencies and learning outcomes.

Online teaching

Assessed learning outcomes	Granted percentage	Assessment method
R2, R3, R4, R5, R6, R7	70,00%	Final evaluation consisting of essay questions and hypothetical scenarios.
R2, R5, R6	5,00%	Submitted tasks
	0,00%	Periodical assessment through questionnaires
R1, R2, R3, R4, R5, R6, R7	25,00%	Attendance and participation in synchronic communication activities.

Observations

Notes:

The written exam will consist of a theoretical and a practical part. The form provided by the teacher and a calculator with statistical functions will be used for this exam.

In order to pass the course the student must pass the different evaluation systems (written exam, attendance and active participation and deliverable assignments) separately.

criteria for the awarding of honors:
Obtain 9.0 points or higher and evidence levels of excellence in all competencies and learning outcomes.

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   Teacher presentation of contents, competency analysis, explanation and demonstration of capacities, abilities and knowledge in the classroom (presential modality).

M2   Teacher-supervised groupwork sessions: case studies, diagnostic tests, problems, fieldwork, IT room, visits, data searches, libraries, web, Internet, etc. Building knowledge significantly through interaction and student activities (presential modality).

M3   Supervised monographic sessions with shared participation.

M4   Application of interdisciplinary knowledge.

M6   Personalized attention in small groups. Training and/or orientation period by a teacher aimed at revising and discussing the materials and topics presented in the lessons, seminars, lectures, assignments, etc.

M7   Set of oral and/or written tests employed in initial, training or summative assessment of the student.

M8   Group preparation of readings, essays, problem resolution, seminars, assignments, reports, etc. to be presented or handed in during theory lessons, practical lessons and/or tutoring sessions in small groups. Tasks done on the platform or other virtual spaces.

M9   Students' independent study: individual preparation of readings, essays, problem resolution, seminars, assignments, reports, etc. to be presented or handed in during theory lessons, practical lessons and /or small-group tutoring sessions. Tasks on the platform or other virtual spaces.

M11   Teacher presentation of contents, competencies analysis, explanation and demonstration of capacities, abilities and knowledge on the virtual classroom.

M12   Group work sessions via chat moderated by the teacher. Case studies –both real and fictional– aimed at building knowledge through interaction and students' activities. Critical analysis of values and social commitment.

M13   Monographic sessions throughout the course, focused on current aspects and applications of the subject.

M14   Set of oral and/or written tests employed in initial, training or summative assessment of the student.

M15   Student's individual study: individual preparation of readings, essays, problem resolution, seminars, assignments, reports, etc. to be discussed or turned in in electronic format.

M16   Individualized attention for the monitoring and orientation in the learning process, performed by a tutor in order to revise and discuss the materials and topics, seminars, readings and assignments, etc.

M17   Group preparation of readings, essays, problem resolution, seminars, assignments, reports, etc. to be discussed or handed in.

M18   Participation and contributions to discussion forums related to the subject and moderated by the module's teacher.

M19   Problem resolution, comments, reports to be handed in according to the deadlines throughout the course.

IN-CLASS LEARNING

IN-CLASS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
ON-CAMPUS CLASS Teacher presentation of contents, analysis of competences, explanation and in-class display of skills, abilities and knowledge. M1, M2, M4	R1, R2, R5, R6, R7	37,75	1,51
PRACTICAL CLASSES Group work sessions supervised by the professor. Case studies, diagnostic tests, problems, field work, computer room, visits, data search, libraries, on-line, Internet, etc. Meaningful construction of knowledge through interaction and student activity. M2, M4, M6	R2, R3, R4, R5, R6	15,00	0,60
SEMINAR Supervised monographic sessions with shared participation. M3, M4	R2, R4, R7	1,50	0,06
GROUP WORK EXHIBITION Application of multidisciplinary knowledge. M2, M4, M6, M8	R1, R3, R4, R5, R6, R7	1,75	0,07
OFFICE ASSISTANCE Personalized and small group attention. Period of instruction and/or orientation carried out by a tutor to review and discuss materials and topics presented in classes, seminars, papers, etc. M3, M6	R2, R3	1,50	0,06
ASSESSMENT Set of oral and/or written tests used in initial, formative or additive assessment of the student. M2, M7, M8, M9	R2, R3, R4, R5, R6, R7	2,50	0,10
TOTAL		**60,00**	**2,40**

LEARNING ACTIVITIES OF AUTONOMOUS WORK

	LEARNING OUTCOMES	HOURS	ECTS
GROUP WORK Group preparation of readings, essays, problem solving, seminars, papers, reports, etc. to be presented or submitted in theoretical lectures, practical and/or small-group tutoring sessions. Work done on the university e-learning platform M2, M4, M6, M8	R1, R2, R3, R5, R6, R7	32,50	1,30
INDEPENDENT WORK Student study: Individual preparation of readings, essays, problem solving, seminars, papers, reports, etc. to be presented or submitted in theoretical lectures, practical and/or small-group tutoring sessions. Work done on the university e-learning platform. M9	R2, R3, R4, R5, R6, R7	57,50	2,30
TOTAL		**90,00**	**3,60**

ON-LINE LEARNING

SYNCHRONOUS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Virtual session (distance learning) M11, M12, M17, M19	R1, R2, R3, R4, R5, R6, R7	38,00	1,52
Virtual practical session (distance learning) M12, M15, M17, M19	R2, R3, R5, R6, R7	15,00	0,60
Seminar and virtual videoconference (distance learning) M13	R2	0,40	0,02
In-person or virtual assessment (distance learning) M12, M14, M15, M18, M19	R2, R3, R5, R6, R7	2,00	0,08
Individual tutoring sessions (distance learning) M16	R2	1,50	0,06
Discussion forums (distance learning) M13, M18	R2, R4	0,75	0,03
Continuous assessment activities (distance learning) M14	R2, R5, R6	1,60	0,06
TOTAL		**59,25**	**2,37**

ASYNCHRONOUS LEARNING ACTIVITIES

	LEARNING OUTCOMES	HOURS	ECTS
Individual work activities (distance learning) M15, M16, M18, M19	R2, R4, R5, R6, R7	58,25	2,33
Teamwork (distance learning) M12, M17	R1, R3	32,50	1,30
TOTAL		**90,75**	**3,63**

Description of the contents

Description of the necessary contents to acquire the learning outcomes.

Theoretical contents:

Content block	Contents
I	Introduction to psychological measurement
II	Test theory
III	Metric quality assessment
IV	Assignment, transformation and matching of scores
V	Techniques for the construction of a test
VI	Adaptation of tests for use in other languages

Temporary organization of learning:

Block of content	Number of sessions	Hours
I	3,00	6,00
II	2,00	4,00
III	17,00	34,00
IV	5,00	10,00
V	2,00	4,00
VI	1,00	2,00

References

Bibliografía básicaBarbero, I. (Coord.), Vila, E. y Holgado, F.P. (2010). Psicometría. Madrid: Sanz y Torres. Barbero, I., García, E., Vila, E. y Holgado, F.P. (2010). Problemas resueltos de Psicometría. Madrid: Sanz y Torres. Barbero, I., Vila, E. y Holgado, F.P. (2010). Formulario de Psicometría y tablas estadísticas. Madrid: Sanz y Torres. Muñiz, J. (1996). Psicometría. Madrid: Universitas.Bibliografía complementariaAlaminos, A. y Castejón, J. L. (2006). Elaboración, análisis e interpretación de encuestas, cuestionarios y escalas de opinión. Editorial Marfil, S. A.Levy, J. y Varela, J. (2003). Análisis Multivariable para las Ciencias Sociales. Pearson-Prentice hall.