

**COURSE DATA****Data Subject**

Code	33337
Name	Measuring instruments in educational contexts
Cycle	Grade
ECTS Credits	4.5
Academic year	2021 - 2022

Study (s)

Degree	Center	Acad. year	Period
1319 - Degree in Psychology	Faculty of Psychology and Speech Therapy	4	First term

Subject-matter

Degree	Subject-matter	Character
1319 - Degree in Psychology	36 - Measuring instruments in educational contexts	Optional

Coordination

Name	Department
SANCERNI BEITIA, MARIA DOLORES	267 - Behavioral Sciences Methodology

SUMMARY

"Measuring instruments in educational contexts" is an elective course that is taught twice a year in the first half of the 4th year of the Degree in Psychology. Consists of 4.5 credits. This subject is intended that the student masters the basic aspects related to educational measurement by scales and tests: their characteristics, the basic methods of construction of scales and tests, the theories of the most important tests, assessing the quality of these measures and their interpretation.

The subject has a theoretical and practical, so that the theoretical components are added at a practical level, to be determined by the theoretical concepts.



PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

There are no specified enrollment restrictions with other subjects of the curriculum.

Other requirements

We recommend having passed the second year subject psychometrics.

OUTCOMES

1319 - Degree in Psychology

- Be able to identify differences, problems and needs.
- Know and comply with professional ethics of Psychology.
- Know the methodology for designing performance tests.
- Be able to design and apply performance tests to solve the problems arising in professional practice.
- Be able to analyse data through statistical software and other information technologies.

LEARNING OUTCOMES

At the end of the course the student will know:

- What is it and how to carry out the construction process of measuring instruments in educational contexts.
- What is it and how to perform the analysis and evaluation of measuring instruments.
- What is it and how to carry out a proper use of measuring instruments.

DESCRIPTION OF CONTENTS

1. Evaluation on knowledge and skills.

Introduction.

Objectives.

The measure of performance.

The evaluation process.



2. Criterion referended tests.

Characteristics of the criterion-referenced tests.
Differences related to testing standards.
Stages in the construction of the criterion-referenced tests.

3. Analysis of the items on the criterion-referenced tests

Contents analysis
Statistical Analysis

4. Reliability of the criterion referended tests

Reliability of domain scores
Reliability of ratings

5. Validity in the criterion referended tests

Determination of breakpoints.
Methods based on the evaluation material
Methods based on the performance of validation groups

6. Interpretation of results

Interpretation of scores.
Reporting and feedback.

7. Aplications.

Item banks
New Insights

**WORKLOAD**

ACTIVITY	Hours	% To be attended
Theoretical and practical classes	45,00	100
Development of group work	17,50	0
Preparation of evaluation activities	20,00	0
Preparing lectures	15,00	0
Preparation of practical classes and problem	15,00	0
TOTAL	112,50	

TEACHING METHODOLOGY

In the face basis theoretical activities will develop the themes of the course providing a global and inclusive vision, analyzing in detail the key issues and more complex, promoting at all times, student participation. These activities are complemented by practical activities in order to apply the basic concepts and extend them with knowledge and experience is acquired during the performance of the proposed work. They include the following types of classroom activities:

- Lectures and classroom issues.
- Sessions for discussion and resolution of problems and exercises.
- Practice with computer.
- Making individual evaluation questionnaires in the classroom.

In addition to classroom activities, students must perform personal tasks (outside the classroom) on: monographs, literature search conducted, issues and problems, and the preparation of classes and exams (study). These tasks will be mainly on an individual basis, in order to enhance self-employment, but further work will be included requiring the participation of small groups of students to build capacity for integration into working groups.

EVALUATION

The evaluation will result in a score of between 0 and 10 points. This rating is based on the evaluation of the following three sections both at first and second call:

System of Evaluation 1 (ES1): ESTIMATION OF THEORETICAL AND PRACTICAL CONTENTS BY MEANS OF ORAL OR WRITTEN TESTS, AND SKILL PERFORMANCE. It will represent 85% of the final qualification. It will consist of two sections: A) continuous evaluation during the scheduled period of classes, with a maximum of 15% and, B) final evaluation, with a maximum qualification of 70%, in which it will be necessary to achieve a minimum of 50% to pass the course both at first and second call. Both sections are recoverable in second call.



System of Evaluation 2 (ES2): ORAL OR WRITTEN PRESENTATION OF REPORTS ABOUT INDIVIDUAL OR GROUP WORKS, CLINICAL CASES, RESOLUTION OF PROBLEMS OR MANAGEMENT OF DIAGNOSTIC TESTS. It will add a maximum of 15% of the final qualification. It is necessary to achieve a minimum of 50% in this section to pass the course both at first and second call. This section is recoverable in second call.

Additional considerations:

1. The described sections will be added up only if the student reaches the minimum required conditions.
2. If a student do not pass some of the compulsory sections at the first call, the points of the other sections will be saved for the second call.
3. The dates to take the tests of Section A of the ES1 will be established by the teacher along the course. They can be individual or groupal evaluations about the topics included in the Syllabus (Guia Docent).
4. The qualification of the subject as well as the review of and appeal against the allotted grades will abide to what is stipulated in the *Reglament d'Avaluació i Qualificació de la Universitat de València per a títols de Grau i Màster* (ACGUV 108/2017 of May 30, 2017).
http://www.uv.es/graus/normatives/2017_108_reglament_avaluacio_qualificacio.pdf

In accordance with it, the following scale of grades will be used:

- Of 0 to 4.9: fail (D)
- Of 5 to 6.9: pass (C)
- Of 7 to 8.9: remarkable (B)
- Of 9 to 10: excellent (A) or First Honors (A+)

As stated in the normative about the attribution of First Honors gardes, it will follow a strict order of numerical mark. In case of a tie, the qualification will be granted to the student with the higher numerical score at Section B of the ES1. If the tie persists, the higher score at the ES2 and, finally the higher score at the Section A of the ES1 will apply. If all of them are identical, the teacher can ask for an additional test to be taken by the candidates.

5. The copy or plagiarism of any task of the evaluation will preclude the student from passing the course. Furthermore, the appropriate disciplinary measures may be applied.



6. Please be aware that, according to article 13.d) of the Statute of the University Student (RD 1791/2010, of 30 of December), a student must abstain to use or cooperate in fraudulent procedures in the tests of evaluation and works that they perform, or in official documents of the university.

7. In individual or group tutoring sessions, the professor can ask questions in order to verify the degree of participation and achievement of the objectives of a task. Not accepting this verification would preclude the student from passing the task or activity in question .

8. The marks reached in the first call will be incorporated to the official proceedings of the subject according to the following rules:

- If there is no qualification, the evaluation section with the highest weight, the grade will be Not Presented, regardless of the rest.
- If the score in the evaluation section with the highest weight does not reach the minimum requirements, FAIL shall be entered and the score (out of 10 points) shall be the qualification of this section.
- If the score at the evaluation section with the highest weight exceeds the minimum requirements, but there are no scores from one or more of the remaining sections, FAIL shall be entered and the numerical score (out of 10 points) will be entered.
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9. At the SECOND CALL, the following rules shall apply:

- The NOT PRESENTED grade will be consigned only when the student has not completed more than one of the assessment sections, including the one with the highest weighting.
- If there are grades for all the evaluation sections and minimum requirements have not been met in any of them, FAIL will be registered and the score (out of 10 points) pertaining to the failed section will be consigned. If more than one section is not passed, the maximum score achieved in one of them will be consigned, together with the grade FAIL.
- If one or more of the minimum requirements are not exceeded and an evaluation section is missing, SUSPENS will be recorded and a numerical note based on 10 of the grade of the section not passed.
- If two evaluation sections are passed and there is a third part in which no evidence of evaluation has been presented, FAIL will be consigned and, as a rating, the average score will be 0.0 for the part not submitted (maximum posible: 4.9).
- If the part of greater weight is passed, but evidences are missing in one or more of the remaining sections, FAIL will be consigned. The parts will be added: a) if the sum is less than 5.0, this result will be recorded; B) if the sum is higher than 5.0, 4.9 it will be consigned.



10. If the subject has been passed in the first call, the students will not be able to attend the second call with the purpose of improving their grades.

11. In order to challenge the allotted grades the provisions of the *Reglament d'Avaluació i Qualificació de la Universitat de València per a títols de Grau i Màster* (ACGUV 108/2017 of May 30, 2017) http://www.uv.es/graus/normatives/2017_108_reglament_avaluacio_qualificacio.pdf will rule.

REFERENCES

Basic

- Martínez Arias, R. Hernández, M.J. y Hernández, M.V. (2006). *Psicometría*. Alianza Editorial.
- Mateo, J. y Martínez, F. (2008). *Medición y evaluación educativa*. Madrid. La Muralla.

Additional

- Smith, E.V. and Stone, G.E. (2009). *Criterion referenced testing: practice analysis to score reporting using Rasch measurement models*. JAM Press.
- Shrock, S.A. & Coscarelli, W.C. (2007). *Criterion-Referenced Test Development: technical and legal guidelines for Corporate Training*. John Wiley & Sons.
- Berk, R.A. (1984). *A guide to criterion-referenced test construction*. Baltimore, MD: John Hopkins University Press.
- Keeves, J.P. 1997. *Educational research, methodology, and measurement: an international hadbook*. Cambridge, Pergamon.
- Hambleton, R K. and Simon, R.A. (1980). *Steps for Constructting Criterion-Referenced Test*. Laboratory of Psychometric and Evaluative research Report No. 104. Massacussets University

ADDENDUM COVID-19

This addendum will only be activated if the health situation requires so and with the prior agreement of the Governing Council



1. CONTENTS

The contents included in the teaching guide are maintained.

2. VOLUME OF WORK AND TIME PLANNING OF TEACHING

The volume of work added to the hours of dedication in ECTS credits marked in the original teaching guide is maintained.

50% of the sessions will be held online and 25% will be held in person, maintaining, in both cases, the schedules established by the center and taught in alternate weeks planned by the center. The remaining 25% will be replaced by study and autonomous work of the student.

3. TEACHING METHODOLOGY

1. Uploading materials to the Virtual Classroom.
2. Proposal of activities by Virtual Classroom.
3. Synchronous videoconferences by BBC.
4. Transparencies or didactic material made by the teacher.
5. Telematic tutorials using the means available at the UV (videoconference, virtual classroom, e-mail, etc.)

4. EVALUATION

The course evaluation system is adapted as follows, maintaining the same system for both the first and the second call:

- Evaluation System 1 (SE1): EVALUATION OF THEORETICAL AND PRACTICAL CONTENT BY ORAL, WRITTEN OR SKILL PERFORMANCE TESTS. It will be 25% of the final grade.

A final written development test will be given consisting of a critical analysis of a research paper. To pass the course it will be necessary to reach a minimum mastery of 50% both at first and second call. This section can be recovered in the second call, which will be carried out through the same procedure.

- In the case that the sanitary circumstances allow it, the test will be carried out in a presential way in the day and hour established in the official call.
- In the case that health circumstances do not allow it, the test will be carried out online through an enabled task in the virtual classroom, on the day and time established in the official announcement, giving two hours for the resolution of the task proposed.



- Evaluation System 2 (SE2): ORAL OR WRITTEN PRESENTATION OF REPORTS, INDIVIDUAL OR GROUP WORK, CLINICAL CASES, TROUBLESHOOTING OR MANAGEMENT OF DIAGNOSTIC TESTS It will be 75% of the final qualification.

This section is divided into two blocks:

- Two problem-solving activities that will combine the objective test-type questions with short answer questions (15%).
- A research report that will be developed throughout the course as progress is made in its content (60%). To pass the course it will be necessary to reach a minimum mastery of 50% in the report both at first and second call.

Both sections are recoverable in the second call.

- In case the health circumstances allow it, the development of the activities that compose the SE2 will take place during the presential sessions of the course.

- In the case that health circumstances do not allow it, these activities will be carried out online through the services available at the UV.

5. BIBLIOGRAPHY

The recommended bibliography in the teaching guide is maintained.