COURSE DATA

DATA SUBJECT

Code: 33732
Name: Educational measurement
Cycle: Undergraduate Studies
ECTS Credits: 6
Academic year: 2025-26

STUDY (S)

Degree	Center	Acad. year	Period
1307 - Degree in Pedagogy	Facultat de Filosofia i Ciències de l'Educació	2	First quarter

SUBJECT-MATTER

Degree	Subject-matter	Character
1307 - Degree in Pedagogy	Methods of educational research	COMPULSORY

COORDINATION

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SUMMARY

This course is part of the curriculum of the degree of Pedagogy. Given the instrumental nature of this matter, we think that it is an essential course for any educator taking into account the requirements of its performance.

The main objective of this course is to give the student the basic information to understand the fundamentals of measurement in education, as well as the methods of elaboration of the instruments of measurement and its proper use.

Thus, we present a comprehensive programme, being aware that the material time of an only course could not cover it; However, we prefer to offer the student the overall vision of the subject and that it is the dynamics of the course which would raise the limits on the objectives we have set. In any case, consider two types of thematic nuclei: basic and specific. The first are necessarily taught, and the latter constitute a framework for the student.

The contents of this course serve as base and/or complement to other subjects.

PREVIOUS KNOWLEDGE

RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

There are no specified enrollment restrictions with other subjects of the curriculum. Other requirements This area is framed in the 2nd year of the degree, so that the student will have already or will be studying some matters that are the basis and complement knowledge which must possess to pursue her: introduction to the educational research, methods of collecting information and data analysis techniques. Practices will be held in the school computer room, which is why it is essential that the student already has skills in the management of the computer and knowledge of ICT.

COMPETENCES / LEARNING OUTCOMES

1307 - Degree in Pedagogy

Be able to evaluate educational and training resources.

Be able to evaluate educational policies, institutions and systems.

Be able to evaluate the teaching-learning processes and the educational agents.

Capacidad crítica y autocrítica.

Capacidad de adaptación a situaciones nuevas.

Capacidad de comunicación profesional oral y escrita en las lenguas propias de la Universitat de València.

Capacidad de gestión de la información.

Capacidad de resolución de problemas y toma de decisiones.

Capacidad de trabajar en equipos multi e interdisciplinares.

Capacidad de utilización de las TIC en el ámbito de estudio y contexto profesional.

Capacidad para desarrollar, promover y dinamizar habilidades de comunicación interpersonal.

Capacidad para integrarse y comunicarse con expertos de otras áreas y en distintos contextos.

Capacidad para realizar investigación educativa en diferentes contextos.

Compromiso con la identidad, desarrollo y ética profesional.

Compromiso ético activo con los derechos humanos y la sostenibilidad.

Conduct prospective and evaluative studies on educational characteristics, needs and demands.

Desarrollo de la innovación y la creatividad en la práctica profesional.

Develop quality management models and processes for education and training.

Develop the capacity for organisation and planning.

Diagnosticar necesidades, situaciones complejas y posibilidades de las personas para fundamentar las acciones educativas.

Elaborar instrumentos para la recogida y análisis de información educativa.

Gestión de la calidad.

Know the principles and fundamentals of attention to diversity in education and implement and coordinate educational interventions with persons or groups with special educational needs or in situations of risk, inequality or discrimination based on gender, class, ethnicity, age, disability and/or religion.

Prepare and interpret technical, research and evaluation reports on educational actions, processes and results.

Skills in analysis and synthesis.

DESCRIPTION OF CONTENTS

1. Introduction

Educational Measurement and Evaluation in the context of Educational Sciences.
Measurement and Evaluation Models. Historical Development.
Conceptualization of the variables involved in the educational process.
Units of analysis and elements of quantification.
Measurement, Evaluation, and Evaluative Research in Education. Concepts. Common and differential aspects.
Data collection techniques and instruments. Classification criteria.
Techniques and instruments: classification and applications.
Standardized instruments: Standard-referenced and criterion-referenced. Non-standardized instruments.
Types of tests: Performance assessment and competency assessment.

2. Item Analysis

Normative Assessment and Criterion-Related Assessment.
Classical Test Theory. Definition, types, and classification. Internal units.

Stages in the construction of an achievement test.
Item design and analysis.
Item types.
Item analysis.
Basic parameters: difficulty and discrimination. Efficiency

3. Reliability and Validity

Reliability as the internal structure of the measure. Analysis strategies. Types of error.
Test validity. Fundamental concepts.
Types of validity.
Test validity and bias.

4. Standardization

The Scoring/Typification Process of the Test.
Normative Interpretation of the Measure. Criterion-Based Interpretation of the Measure.
Norms and Types of Norms.
Normality Tests.
Establishment and Determination of Norms and Scales.
Standardization Procedures.
Calibration. Equalization.

5. Classical Test Theory alternatives

Elements of criticism of Classical Test Theory.
Generalizability Theory.
Item Response Theory.
Tailored tests.
Computerized Adaptive Tests.
Test quality criteria. Critical analysis of their technical components. Interpretation of technical test manuals. Quality and ethics.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theory	30,00
Computer classroom practice	30,00
Total hours	**60,00**

NON PRESENCIAL ACTIVITIES

Activity	Hours

Attendance at other activities	2,00
Individual or group project	25,00
Independent study and work	23,00
Preparation of lessons	15,00
Preparation for assessment activities	20,00
Resolution of case studies	5,00
Total hours	**90,00**

TEACHING METHODOLOGY

The methodology of work that we are going to develop in the course includes the following aspects:

Theoretical classes. They will be based on the exhibition by the Professor of the theoretical aspects of the matter, using the master lesson participatory, or a debate on a specific topic, that allows to link up with the development of the contents to be exhibited below. During the development of the class, it will motivate students to participate in discussions and debates on the studied subject. In some classes a given text (articles of scientific journals, chapters specific to book or manual of use of standardized instruments) will be recommended to students and will be discussed in class at the level of general group.

Practical classes. In the context of the class, a programme of practical and applied, activities related to the theoretical content of the subject will be submitted to the student. The scheme of work will consist of the presentation by the Professor of practical activity is that they will develop and then the students should be practices on computers through the software installed for the purpose. During the development of practices, the Professor will attend all the doubts of the students during the execution of the same. Students must submit practices once completed, in order that the Professor can correct possible errors during the development of the course.

EVALUATION

The course evaluation will include:

Continuous assessment of theory and practical work.
At the end of the course, a theory test will be given and practical work will be submitted, which will represent 50% of the course work, respectively. If the student has not attended 75% of the practical work, they will complete a practical exercise in the classroom.
Voluntary activities proposed by the instructor will be performed.
The maximum grade available is 10 points. To pass the entire course, students must achieve at least 50% of the maximum scores assigned to each block, whether theoretical or practical. A partial grade of less than 5 points will necessarily result in the student failing the course.
The grading system will be expressed using numerical grades in accordance with the regulations (RD 1125/2003 of September 5), which established the European credit system and the grading system for official university degrees valid throughout the country. Please note:
- There is no difference in the evaluation procedure between the first and second call.
- The evaluation sections are recoverable on second call.

Formative assessment:

During the development of the subject, participation, interest in the subject, collaboration with classmates and active participation in class will be valued.

Assessment criteria

Theory
- Understanding of specific terminology and conceptual precision.
- Active participation, commitment and interest.
- Practices

Class attendance.
- Active participation, commitment and interest.
- Quality of the work and practices carried out: adaptation to the theoretical concepts explained, elaboration, originality, incorporation of additional information, etc.
- Compliance with the established delivery deadlines.
- Clarity of work, organization of ideas, capacity for analysis and synthesis.

- Richness, originality and relevance of the interpretation of the data

REGULATIONS FRAUDULENT ACTS AND USE OF THE IAG

Fraudulent conduct in assessment tests and plagiarism in assessment work will be considered in accordance with the UV Assessment and Grading Regulations (ACGUV 108/2017) and the Protocol for Action against Fraudulent Practices (ACGUV 123/2020).

The use of technologies (including AI) to create assessment materials without prior and express authorization from the teaching staff will prevent them from being considered as self-authored and will be treated according to current regulations and the UV Code of Coexistence and Good Practices (ACGUV 300/2023, DOGV, no. 9747/18.12.2023).

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