Universidad Zaragoza

Academic Year/course: 2023/24

63230 - Instructional and Curricular Design in Informatics and Technology

Syllabus Information

Academic year: 2023/24
Subject: 63230 - Instructional and Curricular Design in Informatics and Technology
Faculty / School: 107 - Facultad de Educación
Degree: 584 - Master's Degree in Teaching Compulsory Secondary Education
594 - Master's Degree in Teaching, specializing in Technology and Computer Science
ECTS: 6.0
Year: 1
Semester: First semester
Subject type: Optional
Module:

1. General information

The subject, which is compulsory for students of the Computer Science and Technology specialties, provides each student with knowledge of the curriculum of the technology and computer science subjects in E.S.O. and Bachillerato, which will provide them with the appropriate tools to analyse the actions to be carried out to facilitate their students the learning of technologies and ICTs, to select the appropriate teaching-learning methodologies for the areas of computer science and technology in ESO and Bachillerato and to evaluate whether the actions developed have achieved the proposed objectives

2. Learning results

The student, in order to pass this subject, must demonstrate the following results:

- Describes the provisions of the Spanish and Aragonese official documents concerning the curriculum of technology and ICT subjects, as fundamental frameworks for the programming of these subjects
- Critically comments on these provisions by situating the curricular and psycho-educational principles on which they are based, the choices they make and the margin of decision they leave in the later levels of curricular concretion and adaptation
- Describes and analyses the different teaching-learning methodologies related to the subjects of technologies and ICT, placing them in their corresponding epistemological framework
- Recognizes teaching-learning methodologies, assessing their relevance according to the conditions that arise and, if necessary, adapting them to achieve more effective teaching
- Elaborates a basic didactic program of a subject of the curricula of the specialty from the official curricula, taking into account the legal guidelines

3. Syllabus

- Educational purposes of teaching computer science and technology in secondary education.
- Official regulations.
- Prescriptive elements of the curriculum.
- From curriculum design to didactic programming.
- Different approaches to relate the elements of the curriculum.
- Approaches to teaching technologies in secondary school.
- Elements of instructional design.
- Evaluation models, criteria and techniques.
- Active, collaborative and student-centred learning methodologies.

4. Academic activities

- Theoretical classes in which there will be a presentation of the theoretical foundations of the same by means of expositions and critical reading of scientific articles
- Group activities that serve to identify the elements of the curriculum, objectives, competencies, methodology, activities and evaluation criteria and the coherence between them
- Seminars of discussion oriented fundamentally to form the competences of critical analysis and evaluation of the curricula to be used as a reference
- Methodological orientations of the Aragon Curriculum for ESO, Bachillerato and OLS Practical implications for classroom and non-classroom.
- Elaboration of the curricular design of a subject of the area.

5. Assessment system

Continuous assessment

- Individual or group activities carried out in the classroom (25% curriculum design area).

Submitting the report of each of these activities within one week of its completion in class is a requirement for continuous evaluation

- Reflection articles in the area of instructional design (25%).
- Educational programming project and its defence (25%).
- Methodological report (25%).

Global evaluation and second call:

- For the overall test, students must present the educational programming project (25%), the methodological report

(25%) and take an exam consisting of multiple-choice questions and a developmental question (50%).

-Fifth and sixth call. It will follow the same guidelines as the global evaluation described above.

The grading criteria and levels of demand for each evaluation activity will be published and made known before applying for the activity

Finally, it must be taken into account that the Regulations of the Norms of Coexistence of the University of Zaragoza will be applicable to the irregularities committed in the evaluation tests by means of academic fraud, as well as the application of article 30 of the Regulations of the Norms of Evaluation of Learning in relation to irregular practices other than academic fraud.