

**COURSE DATA****DATA SUBJECT****Code:** 33675**Name:** Music and information and communications technologies (ICTs)**Cycle:** Undergraduate Studies**ECTS Credits:** 4.5**Academic year:** 2026-27**STUDY (S)**

Degree	Center	Acad. year	Period
1339 - Grado en Maestro/a Educación Primaria	Facultat de Formació del Professorat	3	

SUBJECT-MATTER

Degree	Subject-matter	Character
1339 - Grado en Maestro/a Educación Primaria	Specialist in musical education	ELECTIVES

COORDINATION

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SUMMARY

ICTs are often used in schools from a functional perspective, as a means that allows us to do things more comfortably and quickly, but over which, as teachers, we do not have deep knowledge or agency beyond the use of their interfaces. In very few cases has technology been considered as a field for educational experimentation, as an invitation to creation and the co-design of our own artifacts to support the teaching and learning processes in which we participate.

In this sense, the subject *Music and Information and Communication Technologies* is a theoretical-practical course whose main objective is to understand and develop creative and didactic strategies for their implementation and effective use in Primary Education music classrooms, and to shape these technological tools as genuine instruments for training (music learning) as well as tools for the educator (design and development of projects and materials for music education).

This course contributes to the development of the Sustainable Development Goals (SDGs), particularly in relation to quality education (SDG 4), gender equality (SDG 5), and reduced inequalities (SDG 10), promoting teacher education committed to inclusion and equity.

PREVIOUS KNOWLEDGE



RELATIONSHIP TO OTHER SUBJECTS OF THE SAME DEGREE

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

OTHER REQUIREMENTS

Access to the Music Education Specialist track requires a placement test, from which those who hold an Intermediate Music Degree or an equivalent qualification are exempt.

General computer knowledge is required, including operating system management for common tasks such as save, save as, editing, file management (copy, paste, cut), export and import (file formats), permissions, etc. General knowledge of musical notation is also required.

COMPETENCES / LEARNING OUTCOMES

1305 -

Analyse critically the most relevant issues in today's society that affect family and school education: social and educational impact of audiovisual languages and of screens; changes in gender and inter-gender relations; multicultural and intercultural issues; discrimination and social inclusion, and sustainable development; Also, carry out educational actions aimed at preparing active and democratic citizens, committed to equality, especially between men and women.

Assume that teaching must be perfected and adapted to scientific, pedagogical and social changes throughout life.

Design, plan and evaluate teaching and learning classroom activities in multicultural and co-educational contexts.

Design and develop educational projects, programming units, environments, activities and materials, including digital materials, to ensure the adaptation of the curriculum to the diversity of students and to promote the quality of the contexts in which the educational process takes place.

Develop the harmonic and compositional concept through programs to support creation and improvisation.

Express oneself orally and in writing correctly and appropriately in the official languages of the autonomous region.

Identify and plan the resolution of educational situations that affect students with different abilities and different learning rates, and acquire resources to favour their integration.

Integrate information and communication technologies into guided and independent teaching and learning activities.

Know and apply basic educational research methodologies and techniques and be able to design innovation projects identifying evaluation indicators.

Know how to work as a team with other professionals within and outside the school to attend to each



student, to plan the learning sequences and to organise work in the classroom and in the play space.

Know the processes of interaction and communication in the classroom.

Progressively develop an auditory analysis model applicable to any type of music.

Promote cooperative work and individual work and effort.

Recognise the identity of each educational stage and their cognitive, psychomotor, communicative, social and affective characteristics.

Understand that systematic observation is a basic tool that can be used to reflect on practice and reality, and to contribute to innovation and improvement in education.

Use information and communication technologies effectively as usual working tools.

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Apply basic educational research methodologies and techniques, and be able to design innovation projects with appropriate evaluation indicators.

Auditorily identify elements of musical language through the analysis of works from Western music history, folk music and urban popular music.

Commit to professional teaching development and lifelong learning adapted to scientific, pedagogical and social changes.

Communicate effectively, both orally and in writing, in the official languages of the autonomous community.

Critically analyse and incorporate the most relevant contemporary social issues affecting family and school education, including the social and educational impact of audiovisual media and screens, multiculturalism and interculturality, and social inclusion.

Demonstrate the ability to prevent, identify and respond to sexual violence within educational settings, in accordance with Organic Law 10/2022.

Design, plan and evaluate teaching activities and classroom learning in multicultural and co-educational contexts.

Design and develop educational projects, teaching units, learning environments, activities and materials, including digital resources, to ensure curriculum adaptation to learner diversity and to enhance educational quality.

Develop creativity, improvisation and aesthetic awareness through rhythm and movement.

Develop harmonic and compositional understanding through music creation and improvisation software tools.

Identify and remove barriers to the inclusion of pupils with different abilities and learning rates.



Integrate information and communication technologies into both guided and autonomous teaching and learning activities.

Master the performance technique of instrumental pieces and improvisation for musical creation.

Master vocal technique for song performance and improvisation in musical creation.

Progressively develop a model of auditory analysis applicable to any type of music.

Promote cooperative work as well as individual effort and achievement.

Recognise the identity of each educational stage and its cognitive, psychomotor, communicative, social and emotional characteristics.

Understand and be able to apply choral conducting techniques to organise and direct vocal ensembles.

Understand and be able to apply instrumental conducting techniques to organise and direct instrumental ensembles.

Understand that systematic observation is a fundamental tool for reflecting on practice and reality, and contribute to innovation and improvement in education.

Understand the elements of musical language through rhythm and movement.

Understand the processes of interaction and communication in the classroom.

Use information and communication technologies confidently as standard professional tools.

Work effectively as part of a multidisciplinary team, both within and outside the educational setting, to support each pupil, plan learning sequences and organise classroom and play-based learning environments.

DESCRIPTION OF CONTENTS

1.Review of technological tools for music education in different educational contexts. Taxonomies.

2. Digital audio

Concepts and processes in the digitalization of sound.

Hardware and software for audio capturing, processing and storage.



3. MIDI protocol

MIDI Protocol.
MIDI Hardware.
MIDI Connexions.
MIDI controllers and instruments.
Concepts and use of MIDI software.

4. Music general purpose software.

Concepts and use of sequencing software.
Concepts and use of sound edition software.
Work projects in small groups.

5. Design of musical activities and materials for the teaching technology sound based music.

Concepts in the design of both music activities and music materials for teaching Music at Elementary Schools.
Materials and activities for teaching and learning based sound.
Use of sequencers, audio and video edition programs and specific-purpose music software.
Work projects in small groups.

WORKLOAD

PRESENCIAL ACTIVITIES

Activity	Hours
Theoretical and practical classes	45,00
Total hours	45,00

NON PRESENCIAL ACTIVITIES

Activity	Hours
Attendance at other activities	0,00
Individual or group project	0,00
Independent study and work	67,00
Preparation of lessons	0,00
Preparation for assessment activities	0,00
Resolution of case studies	0,00
Total hours	67,00

TEACHING METHODOLOGY



The methodology for teaching this course consists of:

1. Presentation of the theory with exemplifications.
2. Workshops.
3. Practical assignments and projects –individual and group- using the software approached in this matter.
4. Work projects in small groups.
5. Seminars and clinics.
6. Simulations.

EVALUATION

The information for assessing the students' learning will be collected by means of:

1. Project. Work in groups up to 4 students. The project will be related to the development of curriculum materials for Ed. Musical works and application of music technology in Primary Education (Portfolio, 50%).
2. Research on ICT applied to music education and the exposition of that (20%) (collaborative, in pairs).
3. Written test to demonstrate the knowledge of concepts and procedures covered in the syllabus (20%).
4. Optional attendance to formative activities not subject to evaluation. Up to 2 points for two optional training activities of workshop type.
5. Argumented self-assessment of the subject (10%).

To pass the course will need to achieve a minimum percentage of:

60% of the work projects.

60% of the research assignation.

60% of the written test.



The final scores will be adjusted according to a maximum of 10 points. Thus, if two activities are carried out, the highest score is 12 points which is equivalent to 10; if one activity is carried out, the higher score will be 11 points that will be equivalent to 10. If no optional activity is attended by the student, no adjustment will be necessary.

• **ATTENTION:** It is compulsory to attend classes by 80%. The attendance will be evidenced by signature. No need to justify truancy. Those people who do not attend at least 80% of the classes will have to perform an additional test to demonstrate evidence of learning of practical syllabus content. The test will be carried out before the assignments -whose presentation is pre-condition, pass to be evaluated.

Therefore, we recommend reading the following document: "Guia d'actuació per a l'ús responsable de la intel·ligència artificial (IA) en les activitats docents i d'avaluació a la Universitat de València en la Facultat de Formació del Professorat".

https://www.uv.es/magisdire/Calidad/Guia_actuacio_IA_UV_FFP.pdf

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