VNIVERSITAT DE VALÈNCIA

Course Guide
33675 Music and information and communications technologies (ICTs)

COURSE DATA

Data Subject	
Code	33675
Name	Music and information and communications technologies (ICTs)
Cycle	Grade
ECTS Credits	4.5
Academic year	2023 - 2024

Study (s)

Degree	Center	Acad. year	Period
1305 - Degree in Primary School Education	Faculty of Teacher Training	3	First term

Subject-matter

Degree	Subject-matter	Character
1305 - Degree in Primary School Education	16 - Specialist in musical education	Optional

Coordination

Name	Department
MURILLO RIBES, ADOLF	95 - Didactics of Physical, Artistic and Music Education

SUMMARY

Music and ICT is a theoretical-practical course which main goal is to learn and use software and other technologies as tools for both learning music and the designing of music learning materials.

PREVIOUS KNOWLEDGE

Relationship to other subjects of the same degree

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

Other requirements

General knowledge of computer tasks: management of the operative system in common operations such as: save, save as ..., editing, file management (copy, paste, cut ....), export and import (file formats), privileges, use of Windows and Linux tools, etc.. Also, general knowledge of music notation.

COMPETENCES (RD 1393/2007) // LEARNING OUTCOMES (RD 822/2021)

1305 - Degree in Primary School Education

- Express oneself orally and in writing correctly and appropriately in the official languages of the autonomous region.
- Use information and communication technologies effectively as usual working tools.
- 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.
- Promote cooperative work and individual work and effort.
- Assume that teaching must be perfected and adapted to scientific, pedagogical and social changes throughout life.
- Know the processes of interaction and communication in the classroom.
- Recognise the identity of each educational stage and their cognitive, psychomotor, communicative, social and affective characteristics.
- Design, plan and evaluate teaching and learning classroom activities in multicultural and co-educational contexts.
- 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 and apply basic educational research methodologies and techniques and be able to design innovation projects identifying evaluation indicators.
- 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.
- 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.
- Progressively develop an auditory analysis model applicable to any type of music.
- Integrate information and communication technologies into guided and independent teaching and learning activities.
- Develop the harmonic and compositional concept through programs to support creation and improvisation.

- 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.

LEARNING OUTCOMES (RD 1393/2007) // NO CONTENT (RD 822/2021)

Subject will enable the pupils to:

1. Known and apply several technologies for the teaching of music contents at Elementary Schools.
2. Use music software for the teaching of music theory, composition-improvisation and ear training.
3. Design both music activities and learning materials using ICT.
4. Develop their creative capacities by means of ICT.

DESCRIPTION OF CONTENTS

1.

2. Digital audio

Concepts and processes in the digitalization of sound.
Hardware and software for audio capturing, processing and storage.

3. MIDI protoclol

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

ACTIVITY	Hours	% To be attended
Theoretical and practical classes	45,00	100
Study and independent work	67,00	0
TOTAL	**112,00**	

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 assignations -whose presentation is pre-condition, pass to be evaluated.

REFERENCES

Basic

- FINNEY, J. y BURNARD, P. (eds) (2007) Music Education with Digital Technology. London: Continuum.

HOLLAND, D. (2015). A constructivist approach for opening minds to sound-based music. Journal of Music, Technology & Education, 8:1, pp. 2329, https://doi.org/10.1386/jmte.8.1.23_1.

LANDY, L. (2007). Understanding the Art of Sound Organization. The MIT Press.

- LEMAN, M. and NIJS, L. (2017). Cognition and technology for instrumental music learning, in A. King, E. Himonides and A. Ruthmann (eds), The Routledge Companion to Music, Technology, and Education, New York: Routledge, pp. 2335.

MURILLO, A,. RIAÑO, M, E.., MORANT, N, R. (2019). Uso creativo de la tecnología a través de procesos de creación colaborativa. Formaciones Híbridas: la Paella sónica. En Eduardo Lopes (ed). Percursos de Investigação no Século XXI para o Ensino do Instrumento Musical. pp. 36 - 42. Evora: Editora HUMUS

MURILLO, A,. RIAÑO, M, E. and BERBEL, N. (2019). El aula como caja de resonancia para la creación sonora: nuevas arquitecturas y herramientas tecnológicas para acercar el arte sonoro al ámbito educativo. Revista Electrónica de LEEME, 43, pp. 118, https://doi.org/10.7203/LEEME.43.14007.

MURILLO, A,. RIAÑO, M, E. and TEJADA, J. (2021). Aglaya Play: Designing a software solution for group compositions in the music classroom. Journal of Music, Technology & Education, 13:2&3, pp. 23961, https://doi.org/10.1386/jmte_00025_1

- TEJADA, J. (2014) Sonido, Música y Ordenadores. En José L. Aróstegui (Ed.) La Música en Educación Primaria. Manual de Formación del Profesorado.Madrid: Dairea.

TEJADA, J. and THAYER, T. (2019). Design and validation of a music technology course for initial music teacher education based on the TPACK Model and the Project-Based Learning approach. Journal of Music, Technology, and Education, 12:3, pp. 22546, https://doi.org/10.1386/jmte_00008_1.

WHITE, P. (2002) Music technology. A survivor guide. London: Sanctuary Publishing.

WILLIAMS, D. y WEBSTER, P. (2006). Experiencing Music Technology. New York: Schirmer Books.

WEBSTER, R. P. (2016). Computer-based technology, in G. McPherson (ed.), The Child as Musician: A Handbook of Musical Development, Oxford: Oxford University Press, pp. 50019.