

Music Informatics

Code: 100669
ECTS Credits: 6

Degree	Type	Year	Semester
2500240 Musicology	OT	3	0
2500240 Musicology	OT	4	0

Contact

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Use of Languages

Principal working language: catalan (cat)
Some groups entirely in English: No
Some groups entirely in Catalan: Yes
Some groups entirely in Spanish: No

Teachers

Santos Martinez Trabal

Prerequisites

Basic knowledge is required in "Musical language I" and "Musical language II". A good level of English is advisable.

Objectives and Contextualisation

The main objective of the subject is that the student acquires a panoramic vision of the main technological applications oriented to the creation and musical production. For this reason there are several possibilities for the creation and musical production of a recording studio.

At the end of the course the student must be able to:

To have a generic vision of the possibilities of applying technologies related to musical creation.
Have fluidity in a DAW environment with MIDI and audio capabilities.
Know how to deal with the arrangement and production of issues of complexity.
Have practical vocabulary to have a better understanding of the analysis and description of any sound phenomenon.

Competences

- Musicology
- Apply technological and informatic media (internet, data bases, specific editing software and sound processing, etc.) to the discipline of musicology.
- Developing critical thinking and reasoning and communicating them effectively both in your own and other languages.
- Producing innovative and competitive proposals in research and professional activity.

- Students must be capable of applying their knowledge to their work or vocation in a professional way and they should have building arguments and problem resolution skills within their area of study.
- Students must be capable of collecting and interpreting relevant data (usually within their area of study) in order to make statements that reflect social, scientific or ethical relevant issues.
- Students must be capable of communicating information, ideas, problems and solutions to both specialised and non-specialised audiences.
- Students must develop the necessary learning skills to undertake further training with a high degree of autonomy.

Learning Outcomes

1. Apply basic technological concepts linked to music.
2. Be familiar with all the computer tools specific to musicology and know how to apply them correctly in projects.
3. Carrying out a planning for the development of a subject-related work.
4. Demonstrate creative and innovative skills in the area of professional application of musicological training.
5. Detect methodological procedures leading to a research project in musicology.
6. Detect possible fields of innovation and improvement for proposals of cultural and leisure management.
7. Develop habits for transfer to the ambit of musical dissemination and information the musical training acquired.
8. Identifying the main and secondary ideas and expressing them with linguistic correctness.
9. Interpret the rules localized information on the websites of regulatory bodies on the Internet.
10. Personally and critically transfer knowledge acquired in the field of musicology to the pertinent professional and work environments.
11. Solve problems of a methodological nature in the area of musicology.
12. Solving problems autonomously.
13. Use computer applications to edit scores.
14. Use sound sequencers and editors at user level.

Content

THEORY:

Recording history: fundamental formats and technologies.

A short tour of the history of musical production.

Theoretical foundations and basic principles of sound.

Basic aspects about mixing and signal path.

Equalization

Compression

Basic aspects of the MIDI and digital audio protocol.

Introduction to musical production in the DAW environment.

Introduction to sampling and sample bookshops.

Introduction to the synthesis and electronic generation of audio.

Analytical study of several audio production tools with corrective and / or creative capabilities.

PRACTICALS:

Auditory recognition of the effects and creative processes studied.

Creation of bases from REASON (from recorded samples and preys).

MIDI recording of a harmonious base.

Completion of practical activities related to the different methods of sound synthesis.

Remixes of a professional multi-file file.

Mixture of an orchestral arrangement based on a MIDI file.

Composition, production and mixing of a musical background for a video game sequence in a DAW environment.

Composition, production and mixing of music for an advertising spot in the DAW environment.

FINAL PROJECT:

Composition, arrangement, recording, editing and mixing of an own subject in the recording studio.

Methodology

The subject is organized in one half of collective theoretical sessions and another half of practical sessions that will be done individually or in some cases by pairs. Theoretical sessions explain the historical, theoretical and applied concepts. Practical sessions work on the basic functionalities of the software used in the subject (Reason and Pro Tools). For the practical sessions the student will have a document that will guide him step by step throughout each practice.

The final project will be based on the recording in the study and the delivery of two memories (one of previous planning and the other of documentation of the process of recording, editing and final mix). The reports must be submitted in pdf format by email at the address proposed by the teacher. In the case of the final report, an mp3 file with the final mix must be attached.

Activities

Title	Hours	ECTS	Learning Outcomes
Type: Directed			
Practical sessions	25	1	1, 4, 6, 5, 3, 2, 12, 13, 14
Teacher lectures	20	0.8	7, 5, 3, 9, 2, 11
Type: Supervised			
Tutorization	7	0.28	5, 3
Type: Autonomous			
Practical work and final project	50	2	1, 4, 5, 3, 9, 2, 12, 14
Searching information	15	0.6	6, 3

Assessment

Theory exam: 50%

Final project: 50%

Assessment Activities

Title	Weighting	Hours	ECTS	Learning Outcomes
Continuous evaluation	30%	3.5	0.14	1, 4, 5, 3, 8, 9, 2, 12, 10, 13, 14
Final project	30%	28	1.12	1, 4, 7, 6, 3, 2, 11, 12, 10, 13, 14

Bibliography

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