



Module Specification

Audio Engineering

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Part 1: Information

Module title: Audio Engineering

Module code: UFCFC4-30-1

Level: Level 4

For implementation from: 2021-22

UWE credit rating: 30

ECTS credit rating: 15

Faculty: Faculty of Environment & Technology

Department: FET Dept of Computer Sci & Creative Tech

Partner institutions: None

Delivery locations: Frenchay Campus

Field: Computer Science and Creative Technologies

Module type: Standard

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Within this module students will study the fundamentals of audio engineering required for working within studio, live and broadcast environments. Understanding the physics of sound is essential to all areas of audio engineering and, as such, an introduction to these principles forms the basis of the module. In addition to theoretical foundations, students will have the opportunity to develop their

hands-on practical and interpersonal skills in typical audio settings (studio, live and broadcast), ultimately developing a portfolio of practical work.

Features: Not applicable

Educational aims: The aim of this module is to provide students will a broad introduction to audio engineering principles and practices. An understanding of these fundamentals, and an ability to apply these in practice, will underpin and complement much of what is studied in other L4 modules as well as laying a foundation for the recording, practice and production based modules at levels 5 and 6.

Outline syllabus: Teaching will focus on providing students with a fundamental understanding of:

Physics of sound (spectra, phase and level).

Acoustics and psychoacoustics.

Critical listening skills.

Signal flow and fault finding.

Audio hardware and tools (transducers, cables, consoles, DI, dynamic processors and effects).

Digital audio principles and tools (digital signal processing, digital audio workstations / Plug-ins).

Basic recording, mixing, editing and mastering techniques.

Health and safety relating to studio, broadcast and live events.

Production and engineering processes and standards.

Studio etiquette and housekeeping.

Personal and interpersonal skills: time management, study skills, effective teamwork, negotiation.

Communication skills: oral presentation, writing technical reports.

Part 3: Teaching and learning methods

Teaching and learning methods: Scheduled learning includes: Lectures; tutorials; demonstrations; practical classes; workshops; supervised and unsupervised time in studio. Project and event supervision in groups of varying sizes may also be included. Scheduled sessions may vary week to week depending on the topic

currently under investigation.

Independent learning includes hours engaged with essential reading, assignment preparation and completion as well as time spent in the studio involved in recording.

Over the course of the academic year students should expect to spend approximately:

Contact hours: 72

Assimilation and development of knowledge: 148

Assignment preparation: 80

Total study time: 300

Module Learning outcomes:

MO1 Operate a typical audio facility (studio/broadcast/live) to a level that allows for unsupervised access.

MO2 Produce audio work in accordance with specified relevant standards.

MO3 Apply fundamental audio engineering theories and principles in practice

MO4 Communicate clearly within a specified format

Hours to be allocated: 300

Contact hours:

Independent study/self-guided study = 228 hours

Face-to-face learning = 72 hours

Total = 300

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/ufcfc4-30-1.html) via the following link <https://uwe.rl.talis.com/modules/ufcfc4-30-1.html>

Part 4: Assessment

Assessment strategy: Students will demonstrate their understanding of fundamental audio engineering in two assessments.

The first of these is a practical skills test. Students will be required to demonstrate their ability to achieve a set task (for example running a session effectively) safely, within a specified timeframe and whilst adhering to proper practice etiquette, without supervision.

In addition to the practical test, students are expected to complete a portfolio of different tasks that will evaluate learning in fundamental areas of audio engineering. The nature of the task will depend on the required learning, but will likely fall into two categories; academic and practice. For example:

- 1) Academic: A short piece of research investigating underpinning principles of audio engineering and the documentation of this research in an appropriate format (e.g. a technical report).
- 2) Practice: Production of a short recording or broadcast which adheres to the relevant audio standards and reflection on the production process in an appropriate format (e.g. presentation).

Resits will consist of the same two assessment points, although the content of the portfolio and nature of the practical skills test may differ.

Assessment components:

Practical Skills Assessment - Component A (First Sit)

Description: Assessment of Practice

Weighting: 25 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO3, MO4

Portfolio - Component B (First Sit)

Description: Portfolio of coursework

Weighting: 75 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Practical Skills Assessment - Component A (Resit)

Description: Assessment of Practice

Weighting: 25 %

Final assessment: No

Group work: No

Learning outcomes tested: MO1, MO3, MO4

Portfolio - Component B (Resit)

Description: Portfolio of coursework

Weighting: 75 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3, MO4

Part 5: Contributes towards

This module contributes towards the following programmes of study:

Audio and Music Technology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22

Creative Music Technology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2021-22

Audio and Music Technology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22

Creative Music Technology [Sep][FT][Frenchay][3yrs] BSc (Hons) 2021-22

Audio and Music Technology {Foundation} [Sep][FT][Frenchay][4yrs] BSc (Hons)
2020-21

Audio and Music Technology {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons)
2020-21

Digital Media {Foundation}[Sep][FT][Frenchay][4yrs] BSc (Hons) 2020-21

Digital Media {Foundation}[Sep][SW][Frenchay][5yrs] BSc (Hons) 2020-21