



Module Specification

Software Development for Audio

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Part 1: Information

Module title: Software Development for Audio

Module code: UFCF94-15-3

Level: Level 6

For implementation from: 2023-24

UWE credit rating: 15

ECTS credit rating: 7.5

Faculty: Faculty of Environment & Technology

Department: FET Dept of Computer Sci & Creative Tech

Partner institutions: None

Field: Computer Science and Creative Technologies

Module type: Module

Pre-requisites: None

Excluded combinations: None

Co-requisites: None

Continuing professional development: No

Professional, statutory or regulatory body requirements: None

Part 2: Description

Overview: Not applicable

Features: Not applicable

Educational aims: See Learning Outcomes.

Outline syllabus: Object oriented design and programming.

Advanced audio data processing (e.g. frequency domain techniques, large processing structures, audio file formats).

Large program design, structure and implementation styles.

Efficiency, optimisation, profiling, structural techniques, error handling, defensive programming, source management, issue tracking.

Part 3: Teaching and learning methods

Teaching and learning methods: Theoretical and conceptual aspects of the module will be introduced by lecture on a weekly basis and, where appropriate, contextualised with practical demonstrations of application. Relevant reading material and sections from the course text should be read in preparation for each lecture.

Learners will apply the conceptual elements of taught material in weekly practical sessions where abilities in problem solving and implementation surrounding audio technology concepts will be developed. Learners are required to complete exercises, extend ideas, and develop further understanding independently of the timetabled sessions.

The assignment will require students to complete additional unsupervised learning. It should be anticipated that the majority of the associated study time will be biased towards the assignment deadlines.

Module Learning outcomes: On successful completion of this module students will achieve the following learning outcomes.

MO1 Interpret, formulate and implement object oriented software designs and programs as solutions to music and audio related problems

MO2 Create, evaluate and select libraries, data structures, classes and algorithms appropriate for the development of audio and music applications

MO3 Demonstrate effective operation of a range of development tools relevant to the development of software to a professional standard

MO4 Classify, evaluate and communicate software design concepts relevant to audio and music applications

Hours to be allocated: 150

Contact hours:

Independent study/self-guided study = 114 hours

Face-to-face learning = 36 hours

Total = 150

Reading list: The reading list for this module can be accessed at [readinglists.uwe.ac.uk](https://uwe.rl.talis.com/modules/ufcf94-15-3.html) via the following link <https://uwe.rl.talis.com/modules/ufcf94-15-3.html>

Part 4: Assessment

Assessment strategy: The presentation will be used to establish learners' understanding of the module content as described in lectures and reading materials.

The assignment will be used to assess learners' practical skills in the application of music and audio technology systems. This will involve demonstrating an ability to create an extended piece of work beyond the examples seen in lectures and practicals.

Formative assessment will be provided as part of the practical sessions. Individual feedback will be provided on the assignment and presentation.

Assessment criteria will be supplied with the assignment specification.

Assessment tasks:

Presentation (First Sit)

Description: Presentation (15 minutes)

Weighting: 25 %

Final assessment: No

Group work: No

Learning outcomes tested: MO4

Practical Skills Assessment (First Sit)

Description: Assignment 1 (individual work)

Weighting: 75 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Presentation (Resit)

Description: Presentation (15 minutes)

Weighting: 25 %

Final assessment: No

Group work: No

Learning outcomes tested: MO4

Practical Skills Assessment (Resit)

Description: Assignment 1 (individual work)

Weighting: 75 %

Final assessment: Yes

Group work: No

Learning outcomes tested: MO1, MO2, MO3

Part 5: Contributes towards

This module contributes towards the following programmes of study:

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 [Sep][SW][Frenchay][4yrs] BSc (Hons) 2020-21

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

Creative Music Technology [Sep][SW][Frenchay][4yrs] BSc (Hons) 2020-21

Audio and Music Technology {Foundation} [Sep][SW][Frenchay][5yrs] BSc (Hons)
2019-20