Module Definition Form (MDF)

Module code: MOD007366	**Version:** 2 **Date Amended:** 27/Jul/2021

1. Module Title
Studio Techniques

2a. Module Leader
Richard Edwards

2b. School
Cambridge School of the Creative Industries

2c. Faculty
Faculty of Arts, Humanities, Education and Social Sciences

3a. Level
4

3b. Module Type
Standard (fine graded)

4a. Credits
30

4b. Study Hours
300

5. Restrictions			
Type	**Module Code**	**Module Name**	**Condition**
Pre-requisites:	None		
Co-requisites:	None		
Exclusions:	None		
Courses to which this module is restricted:	BSc (Hons) Audio & Music Technology; BSc (Hons) Audio & Music Technology (with placement); BA (Hons) Music Performance; BA (Hons) Music Production; BA (Hons) Music and Sound Production; appropriate framework award		

LEARNING, TEACHING AND ASSESSMENT INFORMATION

6a. Module Description

This module will introduce you to sound recording, mixing, editing and production. No prior knowledge is assumed. The module starts with the system design and signal chain of a typical recording studio, explaining the theory of the key pieces of software and hardware.

We concentrate on two commercial digital audio workstations used in music production that present different workflows; Apple Logic Pro and Avid Pro Tools. Both DAWs are in common use in the industry so it is important for you to be confident in both. You'll explore MIDI sequencing, real and virtual instruments, audio recording and importation, and audio and MIDI processing and editing. You'll gain an understanding of the theory and use of audio hardware, including dynamic and condenser microphones, analogue and digital mixing desks, dynamics processors, reverberation and other echo-based effects, and equalisation, and other outboard equipment. You'll be introduced to the relevant electrical principles, including impedance and balanced and unbalanced connections. We also discuss studio monitors. Room acoustics is covered, with the emphasis on spaces for recording and mixing.

You'll understand the applicability of this software and hardware in different musical contexts, including the workflow and technologies used in film audio, game audio and podcasting.

You will get hands-on practical experience in the studios to make a variety of recordings. Lectures and tutorials will feature critical listening and demonstrations of music creation, recording, mixing and production, and highlight techniques for maximising sonic fidelity.

6b. Outline Content

- Recording studio system design, the signal chain
- Critical listening
- Room acoustics
- Digital and analogue mixing desks, busses, high and low impedance inputs, balanced and unbalanced lines, auxiliary channels
- Dynamic and condenser microphones
- Recording/playback formats and devices, studio outboard processors
- Sequencers, virtual instruments, wave editors, audio manipulation tools, software mixing
- Units of signal measurement
- Gain, dynamic range, compressors and other effects
- Filters, roll-off, attenuation, equalisation
- Near-field monitors, outboard equipment
- Panning, stereo sound
- Introduction to film and game sound
- Introduction to podcasting

6c. Key Texts/Literature

The reading list to support this module is available at: https://readinglists.aru.ac.uk/

6d. Specialist Learning Resources

A range of studio facilities with soundproof rooms, analogue and digital mixing desks and associated audio hardware, computer hardware and up-to-date software.

7. Learning Outcomes (threshold standards)		
No.	**Type**	**On successful completion of this module the student will be expected to be able to:**
1	Knowledge and Understanding	Understand the operational principles of a range of commercial music technology equipment;
2	Knowledge and Understanding	Appreciate the integral role played by computer hardware and software in current system design;
3	Knowledge and Understanding	Understand how music technology equipment integrates into a working system for performance and recording purposes;
4	Intellectual, practical, affective and transferrable skills	Gain hands-on experience and gain confidence in operating a range of music technology hardware and software;

8a. Module Occurrence to which this MDF Refers				
Year	**Occurrence**	**Period**	**Location**	**Mode of Delivery**
2025/6	ZZF	Template For Face To Face Learning Delivery		Face to Face

8b. Learning Activities for the above Module Occurrence			
Learning Activities	**Hours**	**Learning Outcomes**	**Details of Duration, frequency and other comments**
Lectures	30	1-4	3-hour lecture in weeks 1-6 and 8-11
Other teacher managed learning	30	1-4	2-hour laboratory in weeks 1-6 and 8-11 4-hour feedback session in week 7 6-hour presentation session in week 12
Student managed learning	240	1-4	Time in studios, including experiments and coursework
TOTAL:	300		

9. Assessment for the above Module Occurrence					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
010	Coursework	1-4	50 (%)	Fine Grade	30 (%)
Logbook - 2,500 word equivalent					
Assessment No.	**Assessment Method**	**Learning Outcomes**	**Weighting (%)**	**Fine Grade or Pass/Fail**	**Qualifying Mark (%)**
011	Coursework	1-4	50 (%)	Fine Grade	30 (%)
Logbook - 2,500 word equivalent					

In order to pass this module, students are required to achieve an overall mark of 40% (for modules at levels 3, 4, 5 and 6) or 50% (for modules at level 7*).

In addition, students are required to:
(a) achieve the qualifying mark for each element of fine graded assessment as specified above
(b) pass any pass/fail elements

[* the pass mark of 50% applies for all module occurrences from the academic year 2024/25 – see Section 3a of this MDF to check the level of the module and Section 8a of this MDF to check the academic year]