

## 6.17 Module 17: Sound Design and Creative Processing

<b>Module Title</b>	Sound Design and Creative Processing
<b>Module NFQ Level (only if an NFQ level can be demonstrated)</b>	7
<b>Module number/Reference</b>	BAAMT208
<b>Parent Programme</b>	BA (Hons) in Audio and Music Technology
<b>Stage of Parent Programme</b>	2
<b>Semester</b>	1
<b>Module Credit Units (FET/HET/ECTS)</b>	ECTS
<b>Module Credit number of Units</b>	5
<b>List the teaching and learning modes</b>	FT
<b>Entry requirements (statement of knowledge, skill and competence)</b>	Learner has earned Level 5 qualification. No previous experience is required
<b>Pre-requisite module titles</b>	None
<b>Co-requisite module titles</b>	None
<b>Is this a capstone module? (Yes or No)</b>	No
<b>Staff qualifications (academic, pedagogical and professional/occupational) and experience required. (staff includes workplace personnel who are responsible for learners such as apprentices, trainees and learners in clinical placements)</b>	Staff are required to have at least a Bachelor of Arts (Honours) qualification in Music Technology or related discipline. Industry experience would be a benefit but is not a requirement. Staff are expected to have the Certificate in Training and Education qualification from Griffith College or its equivalent.
<b>Staff/learner ratio per centre (or instance of the module)</b>	For lecture load, ratio of 1:50 lecturer to learner is required and in lab sessions the maximum allowed is 1:25 The lecturer will also have 1 hour per week set aside in their timetable for 1:1 contact with learners who require it or have particular items they want to discuss.
<b>Maximum number of learners per centre (or instance of the module)</b>	50
<b>Duration of the Module</b>	One Academic Semester, 12 weeks teaching
<b>Average (over the duration of the module) of the contact hours per week.</b>	3
<b>Physical resources and support required per centre (or instance of the module)</b>	One lecture hall with capacity at least 50 and one practical lab with PA system.

Analysis of Required Learning Effort										
Effort while in contact with staff										
Classroom and Demonstrations	Mentoring and small group tutoring	Other (Specify)		Directed e-learning (hours)	Independent learning (hours)	Other hours (specify)	Work-based learning hours of learning effort	Total Effort (hours)		
		Hours	Minimum ratio teacher/learner						Hours	Minimum ratio teacher/learner
24	12	1:50	1:25		89			125		
Allocation of marks (within the module)										
				Continuous Assessment	Supervised Project	Proctored practical	Proctored Written Examination	Total		
Percentage contribution					100%			100%		

### 6.17.1 Module Objectives

This module is intended to develop and deepen the learner's understanding of sound design by investigating creative sound processing. Editing techniques, audio restoration techniques and the application of filters and effects are investigated. Dialogue and environment sound creation are investigated using sound design theory and developed using creative processes.

### 6.17.2 Minimum Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

- MLO 17.1 Creatively use sound design for various projects.
- MLO 17.2 Demonstrate proficiency in a broad range of creative audio processing techniques.
- MLO 17.3 Evidence effective editing and processing techniques for dialogue and sound effect production.
- MLO 17.4 Analyse and critique the production of creative sound worlds within games and film.

### 6.17.3 Rationale for inclusion of the module in the programme and its contribution to the overall IPLOs.

As with other disciplines in audio, it takes time to develop the skills. This module will give the learners more opportunity with the methods and practices of Sound Design and help them develop a creativity of their own. The learning in this module will contribute to Programme Learning Outcomes 3 and 12, while also helping learners in achieving outcome 1 and 4.

### 6.17.4 Information Provided to Learners about the Module

Learners enrolled on this module will receive a copy of the module descriptor and assignment briefs, including an outline of the criteria for assessment.

Previous examples of assignments are also presented to the class.

### 6.17.5 Module Content, Organisation and Structure

The module is organised to deliver theory through lectures (2 hours) and supervised tutorials (1 hours). During tutorials, learners will work individually on computer workstations. This will allow the lecturer to work with smaller groups to demonstrate the material.

The lectures each week will combine lecture delivery and discussion on the material.

Each lecturer has a time allocated for one-to-one meetings with learners as required. These are not mandatory sessions but available either where the lecturer wishes to discuss an element of the module with a learner, or a learner requests a meeting to discuss a particular topic. These sessions focus on academic issues only.

## Module Content:

### Elements of creative sound design

- An effective application of creative sound processing techniques.
- Definitions of frequency and dynamic control.
- Concepts within audio processing practice.

### Creative audio processing techniques

- Creative sample rate application.
- Digital Signal Processing principles.
- Frequency and Time domains.

### Editing and processing techniques for dialogue and sound effect production

- Sound Effect and Dialogue editing techniques.
- Application of filters and effects for sound transformation.
- Audio Enhancement.

### Analysis of production of creative sound worlds within games and film

- Evidence of research.
- Creation and manipulation of original sound effects.
- Audio processing techniques.
- Use of EQ, Compression and Limiting.

## 6.17.6 Module Teaching and Learning Strategy

This module is delivered through a combination of lectures, tutorials and practical sessions. The emphasis will be on learners to take the theoretical knowledge and apply it practically to develop the skills required. Learners will need to work on material outside of the lab and in studios. Industry professionals will be brought in to do workshops and discuss standards, techniques and best practice for session management.

Activity	Teaching / Learning Strategy	Learning Environment
<b>Lecture (24 hours)</b>	Lectures / participative discussions / case studies of key practitioners / sound design and creative processing techniques	College
<b>Tutorial (12 hours)</b>	Practicing sound design and processing skills / training in advanced use of creative processing using plug ins and DAW software / practical application of theory from lecture	College / Mac lab
<b>Assignment (48 hours)</b>	Practice learning and perfecting sound design and processing skills	College
<b>Independent Work (41 hours)</b>	Directed and self-directed learning / home study	College / Home

### 6.17.7 Timetabling, Learner Effort and Credit

The module is timetabled as one 3 lecture to the whole class. These will generally take the form of a 2-hour lecture followed by a 1-hour tutorial on workstations allowing the lecturer to work individually with learners to demonstrate the material.

It is our view that 5 ECTS of learner effort is required by learners coming new to the material to achieve the learning outcomes required.

### 6.17.8 Work-based Learning and Practice-placement

There is no work based learning or practical placement involved in the module.

### 6.17.9 E-Learning

The College VLE is used to disseminate notes, advice and online resources to support the learners. The learners are also given access to Lynda.com as a resource for reference.

### 6.17.10 Module Physical Resource Requirements

Requirements are for a fully equipped lecture hall and access for each group to a lab with computer workstations. Each workstation should have audio synthesis and editing software. Learners will require bookable studio access for recording elements.

### 6.17.11 Reading Lists and other Information Resources

#### Recommended Reading

Sonnenschein, D. (2001) *Sound design: the expressive power of music, voice, and sound effects in cinema*. Studio City CA: Michael Wiese Productions

Viers, R. (2008) *The sound effects bible: how to create and record Hollywood style sound effects*. Studio City, CA: Michael Wiese Productions

#### Secondary Reading

Collins, K. (2008) *Game sound: an introduction to the history, theory, and practice of video game music and sound design*. Cambridge MA: MIT Press.

Farrell, A. (2010) *Designing sound*. Cambridge MA: MIT Press.

Hirsch, S. (2015) *Sound design for motion graphics*. Lynda.com

Kaye, D. & LeBrecht, J. (2015) *Sound and music for the theatre: the art and technique of design*. London: Focal Press.

Marks, A. (2008) *The complete guide to game audio: for composers, musicians, sound designers, and game developers*. Oxford: Focal Press

Beauchamp, R., (2005) *Designing sound for animation*. Oxford: Focal Press

Lee White, B. (2013) *Crafting Sound Design (from course Producing Music For Advertisements)* Lynda.com

### 6.17.12 Specifications for Module Staffing Requirements

For each instance of the module, there will be one lecturer qualified to at least Bachelor of Arts (Honours) level in Music Technology or equivalent and with a relevant third level teaching qualification (e.g. Certificate in Training and Education). Depending on numbers a lab assistant may be required. Where this is the case the Assistant will be required to have a sound understanding of sound design, either through industry experience or academic qualification. For example, a final year Bachelor of Music Production (Honours) learner may be suitable to assist the lecturer in lab sessions. Any lab assistant will work under the supervision of the lecturer.

### 6.17.13 Module Summative Assessment Strategy

Element No	Weighting	Type	Description	Learning Outcomes Assessed
1	40%	Project	Create a fixed media sound design work using only one sample as the basis of the entire sound world	16.1 - 16.4
2	60%	Project	Create three soundscape environments: Machine, Underwater, Space with an accompanying document describing the processes involved.	16.1 - 6.4

### 6.17.14 Sample Assessment Materials

#### Assessment 1

##### Sound design for fixed media

Create a stereo format, sound design work using only white noise. Learners will be provided with a video (<https://vimeo.com/101501138>), where each UI sound needs to be replaced and re-created. You are free, however, to employ as many plugins and editing techniques as you deem necessary. The final audio must be delivered as a Stereo, 44.1kHz, 16bit, Wav file.

#### Assessment 2

##### Soundscape creation

Create three one-minute soundscape environments that illustrate the world of Machine, Underwater and Space. Pay careful attention to illustrate the perspective audio depth of background, middle-ground, and foreground. Include a document that describes an overview of your inspiration, workflow and production process.