6.24 Module 24: Audio Post Production Techniques

Module Title	Audio Post Production techniques
Module NFQ Level (only if an NFQ level can be demonstrated)	8
Module number/Reference	BAAMT306
Parent Programme	BA (Hons) in Audio and Music Technology
Stage of Parent Programme	3
Semester	1
Module Credit Units (FET/HET/ECTS)	ECTS
Module Credit number of Units	5
List the teaching and learning modes	FT
Entry requirements (statement of knowledge, skill and competence)	Learner has earned Level 5 qualification. No previous experience is required
Pre-requisite module titles	None
Co-requisite module titles	None
Is this a capstone module? (Yes or No)	No
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)	Staff are required to have at least a Master's qualification in Audio and 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.
Staff/learner ratio per centre (or instance of the module)	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.
Maximum number of learners per centre (or instance of the module)	50
Duration of the Module	One Academic Semester, 12 weeks teaching
Average (over the duration of the module) of the contact hours per week.	3
Physical resources and support required per centre (or instance of the module)	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	Hours	Minimum ratio teacher/learner					
24	1:50	12	1:25				89			125
Allocation of marks (within the module)										
				Continuous Assessment	Supervised Project(s)	Proctored practical	Proctored Written Examination			Total
Percentage contribution					100%					100%

6.24.1 Module Aims and Objectives

This module aims to develop learner's ability to work in the field of Audio Post Production for Film and Television. Learners will develop their knowledge of industry standard Post Production workflows including session interchange, audio and video synchronization and extended deliverables. Learners will explore editing workflows, noise reduction techniques, ambience matching, advanced routing and industry mixing and metering standards for stereo and surround formats. Learners will also explore different roles within the industry.

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6.24.2 Minimum Intended Module Learning Outcomes

On successful completion of this module the learner will:

MLO 24.1	Identify, analyse and apply advanced audio and video synchronization techniques.
MLO 24.2	Identify, analyse and apply advanced editing, routing and mixing techniques using industry standard DAWs.
MLO 24.3	Identify, analyse and apply software based Noise Reduction techniques to restore and enhance existing recordings.
MLO 24.4	Initiate and plan projects involving the comprehensive use of surround sound formats and their effective application in Film and TV.

6.24.3 Rationale for inclusion of the module in the programme and its contribution to the overall IPLOs

This module will focus the learner's skills into the world of Audio Post Production. With the expanding film and games industries in Ireland, this is a vital skill for any audio professional and will serve to broaden the disciplines learners are skilled in. The learning in this module will contribute to Programme Learning Outcome 1 and 12, while also contributing to Outcomes 9 and 11.

6.24.4 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.

6.24.5 Module Content, Organisation and Structure

The module is organised to deliver theory through lectures (2 Hours) and supervised tutorials (1 Hour). During tutorials, each learner will have a workstation allowing the lecturer to work individually with learners to demonstrate and explain the material. Some tutorials will take place in a surround sound recording studio techniques.

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.

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Module Content

Audio and video synchronization techniques
- An understanding of key principles.
- Technical definitions and specifications.
- Ability to set up and synchronize audio to video.

Editing, routing and mixing techniques within industry standard DAWs

- An understanding of Post Production editing terminology and workflows.
- Correct use of busses when sub-mixing and stemming.
- Real-Time Automation techniques using control surfaces.
- An understanding of industry standard metering requirements.

Noise Reductions techniques
- Broadband noise reduction.
- Spectral analysis and repair.
- EQ and Ambience matching.

Surround Sound formats for Film and TV
- An understanding of technical requirements for mixing in surround.
- Surround routing within DAW.
- Correct use of Surround plug ins and tools.
- Key practitioners & seminal works.

6.24.6 Module Teaching and Learning Strategy

This module is delivered through a combination of lectures, tutorials. The emphasis is on developing skills and understanding workflows used in Audio Post Production. These skills need to be applied in a systematic way, so learners will be encouraged to carry out additional work, outside of classes and tutorials as often as possible.

In addition to classes, learners will need to put in at least four hours of study and homework each week.

Activity	Teaching / Learning Strategy	Learning Environment
Lecture (48 hours)	Lectures / participative discussions / case studies and examples of post-production workflows / practical demonstrations of techniques / analysis of seminal works and practitioners	College
Tutorial (24 hours)	Practice and training on post production tools and techniques / guided recording and mixing studio sessions / practical application of techniques	College / Mac lab
Assignment (96 hours)	Practice learning and perfecting recording, editing, mixing techniques.	College
Independent Work (82 hours)	Directed and self-directed learning / home study / practice in college studio spaces	College / Home

6.24.7 Timetabling, Learner Effort and Credit

The module is timetabled using one 3-hour session per week to the whole class, this will generally consist of one 2-hour lecture and one 1-hour tutorial demonstrating the material.

The number of credits assigned to this module is our assessment of the amount of learner effort required. 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.

6.24.8 Work-based Learning and Practice-placement

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

6.24.9 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.

6.24.10   Module Physical Resource Requirements

Requirements are for a fully equipped lecture hall and access for each group to a computer lab. The software requirement is for an industry standard DAW with integrated video playback capabilities.

6.24.11   Reading lists and other Information Resources

Recommended Reading
Holman, T. (2007) *Surround sound: up and running*. Oxford: Focal Press.
Holman, T. (2010) *Sound for film and television.* Oxford: Focal Press.
Krantz, J, (2015) *Pro Tools 11: advanced post production techniques*. Avid Learning
Purcell, J. (2013) *Dialogue editing for motion pictures: a guide to the invisible art*. Oxford: Focal Press.
Yewdell, D.L. (2011) *Practical art of motion picture sound*. Oxford: Focal Press.

Supplemental Reading
Angel, E. (2016) *Video post-production for low-budget films.* Lynda.com
Arment, V. (2014) *The foley grail: the art of performing sound for film, games and animation.* Oxford: Focal Press.
Cross, M. (2013) *Audio post production for film and television.* Boston MA: Berklee Press.
Hirsch, S. (2016) *Audio for video: production and post sound techniques.* Lynda.com
Toole, F. (2008) *Sound reproduction: the acoustics and psychoacoustics of loudspeakers and rooms.* Oxford: Focal Press.
Wyatt, H. and Amyes, T. (2013) *Audio post production for television and film: an introduction to technology and techniques*. Oxford: Focal Press.
Hirsch, S. (2012) Audio *for Film and Video with Pro Tools.* Lynda.com
Hirsch, S. (2015) Repairing *and Enhancing with iZotope RX 4.* Lynda.com

6.24.12   Specifications of Module Staffing Requirements

For each instance of the module, there will be one lecturer qualified to at least Master's 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 statistics and data analytics, either through industry experience or academic qualification. Any lab assistant will work under the supervision of the lecturer.

6.24.13   Module Assessment Strategy

Name	Description	Weighting	Learning Outcomes
Assignment	Editing of a picture and final stereo dub mix with focus on dialogue editing, ADR recording and noise reduction. A pre-mix must also be submitted	50%	22.1 – 22.3
Assignment	5.1 Surround Sound mix of a project with attention to system calibrations, DAW routing, surround automation, mix down and deliverables. As part of the project, learners will be required to attend scheduled meetings with a tutor for feedback. This will contribute to a continuous assessment element.	50%	22.2 – 22.4

6.24.14   Sample Assessment Materials

Assessment 1:
Participants will choose a scene/trailer from a live action movie. Each will be required to reproduce all audio aspects of the clip including, music soundtrack, dialog, sound effects and soundscapes.
Library music is not allowed for this piece. All music should be an original composition by the participant.
Each participant will submit a QuickTime movie of the clip with stereo audio. Project file and supporting documentation will also be submitted.

Assessment 2:
Surround Sound Mix.
For this project, participant will use the clip from assessment 1 above and produce a surround sound audio version of the same clip.
Each will be required to submit industry standard deliverables. I.e.
- 5.1/7.1 mix of final Dub
- Individual stems of Music, Dialog, and Effects.
- An M&E mix (stereo and surround