6.23 Module 23: Recording and Mixing 2

Module Title	Recording and Mixing 2
Module NFQ Level (only if an NFQ level can be demonstrated)	8
Module number/Reference	BAAMT305
Parent Programme	BA (HONS) Audio and Music Technology
Stage of Parent Programme	3
Semester	1 and 2
Module Credit Units (FET/HET/ECTS)	ECTS
Module Credit number of Units	10
List the teaching and learning modes	FT
Entry requirements (statement of knowledge, skill and competence)	Learner has earned Level 5 qualification. No previous applications technology ability 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	Two Academic Semesters, 24 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 computer lab with capacity of 25.

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					
48	1:50	24	1:25				178			250
Allocation of marks (within the module)										
					Continuous Assessment	Supervised Project(s)	Proctored practical	Proctored Written Examination		Total
Percentage contribution					10%	70%	20%			100%

6.23.1 Module Objectives

This module aims to advance a range of skills required to make an effective producer. This involves developing recording skills to a professional industry standard including pre and post-production elements, recording large acoustic ensembles, and the use of virtual instruments and sound manipulation. The module enables the learner to manage both technical and interpersonal communications in a studio environment with an orchestra or large ensemble, and develops communication skills required to liaise with clients.

6.23.2 Minimum Intended Module Learning Outcomes

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

MLO 23.1   Manage a substantial music based recording and production to professional industry standards.
MLO 23.2   Manage the modern multi-studio, cross-platform workflow of a project smoothly from pre-production to final master.
MLO 23.3   Record ensembles in a studio to a professional standard.
MLO 23.4   Produce an integrated structured recording from a variety of different source materials.

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

This module is very much the culmination of the learners' recording and production skills. In this module Learners, will get to grips with large acoustic ensembles. They will be fully involved in the recording techniques and workflows of the large recording sessions. The industry now is leaning largely to full, live band setups in studios, with performances being made often as online content and for promotional material. In Windmill Lane Studios, we are seeing a large amount of these sessions. Learners will be working with clients outside of the studio to pre-produce, plan and realise a full recording session of an album project. The learning in this module will contribute to learner's achievement of Programme Learning Outcomes 6 and 9 while also contributing to Outcomes 8, 11 and 12.

6.23.4 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.

6.23.5 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 recording studio demonstrating large group recording 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.

Module Content

Recording studio techniques for acoustic ensembles
- The Orchestra.
- Strings.
- Brass.
- Percussion.
- Woodwind.
- Solo instruments.
- Choir.

Formative lab-work and tutorials focus on the completion of learner assignments
- The architecture of a creative workflow.
- Creating a conducive recording and working environment.
- Producer as musician and arranger.
- Advanced virtual instrument technologies.
- Advanced effect and sound manipulation technologies.
- The synthesis of musical and technical ideas.

Lectures will develop more general production skills
- Budgeting for projects.
- Case studies of the producer/ artist dynamic.
- Visiting lecturers providing real world advice from the producer/engineer environment.
- Group analysis of learner work and of industry examples.

6.23.6 Module Teaching and Learning Strategy

Learners are taught using a combination of lectures and practical tutorials. Tutorials are will take place in recording studios and practical labs and are used to develop the learner's proficiency in ensemble recording. Allowing demonstration and practice of room acoustics, instrument positioning and mic choice and placement.

In addition, learners will be required to do a large portion of practical work outside of timetabled hours.

Activity	Teaching / Learning Strategy	Learning Environment
Lecture (48 hours)	Lectures / participative discussions / case studies of advanced mixing and recording / demonstrations of instruments and recording techniques	College
Seminar (24 hours)	Seminars with industry producers and engineer providing additional perspectives and insights / editing suite, recording studio and computer lab seminars for in-depth training	College / Studio / Mac lab
Assignment (96 hours)	Practice learning and perfecting recording and mixing skills	College
Independent Work (82 hours)	Directed and self-directed learning / home study / practice in college studio spaces	College / Home

6.23.7 Timetabling, Learner Effort and Credit

The module is timetabled using one 3-hour session per week to the whole class. This will consist of a 2-hour lecture, and a 1-hour studio or lab tutorial.

The number of credits assigned to this module is our assessment of the learner effort required. It is our view that 10 ECTS of learner effort is required by learners coming new to the material to achieve the learning outcomes required.

6.23.8 Work-based Learning and Practice-placement

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

6.23.9 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.

6.23.10 Module Physical Resource Requirements

Requirements are for a fully equipped lecture hall and access to one or more recording studios. The recording studio should be capable of managing multi-instrument, musician, ensemble recordings. Variable room acoustics and broad range of microphones should be available to the learner for demonstration and practice.

6.23.11 Reading Lists and Other Learning Materials

Recommended Reading
Katz, B, (2014) *Mastering audio: the art and the science.* Oxford: Focal Press.
Owsinski, B. (2013) *The recording engineer's handbook.* Boston MA: Course Technology.
Owsinski, B. (2013) *The Mixing engineer's handbook*. Boston MA: Cengage Learning.
Owsinksi, B. (2016) *Audio mixing masterclass.* Lynda.com

Secondary reading
Beinhorn, M. (2015) *Unlocking creativity: a producer's guide to making music and art.* Milwaukee WI: Hal Leonard.
Crane, L. & Visconti, T. (2001) *Tape op: the book about creative music recording.* Venice CA: Feral House.
Crane, L. (2009) *Tape op the book about creative music recording, Vol. 2.* Venice CA: Feral House.
Crane, L. (2013) *Music production secrets: Larry Crane on mixing.* Lynda.com
Hewitt, R. (2015) *Drum setup and Mic'ing in the studio*. Lynda.com
Hewitt, R. (2015) *Drum mixing techniques. Drum mixing techniques.* Lynda.com
Massey, H. (2000) *Behind the glass: top record producers tell how they craft the hits.* San Francisco: Backbeat Books.
Massey, H. (2009) *Behind the glass Volume II: top record producers tell how they craft the hits.* San Francisco: Backbeat Books.

6.23.12 Specifications of Module Staffing Requirements

For each instance of the module, there will be one lecturer qualified to at least Master's level in Sound Engineering 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 music technology and computer based workstations, either through industry experience or academic qualification. For example, a postgraduate student of Audio and Music Production may be suitable to assist the lecturer in lab sessions. Any lab assistant will work under the supervision of the lecturer.

6.23.13 Module Summative Assessment Strategy

Name	Weight	Description	Learning Outcomes
Practical	20%	Learners will undergo a large format studio Practical Exam. In this they will be examined on, studio setup, signal flow, DAW management, Patch bay, Client communications, multi-channel headphones systems, Automation setup and grouping, mix-down process.	21.1, 21.2, 21.4
Assignment	30%	Live recording – learners will produce a recording of a large ensemble, or large band. No overdubs are allowed. Learners will pay attention to isolation, clarity, spill management, line of sight.	21.2
Assignment	40%	Client E.P. Learners will source and work with a client to produce an E.P project (minimum 4 songs).	21.1 – 21.4
Continuous assessment	10%	Using the E.P., learners will be required to attend formative assessment meetings to monitor progression of the project through stages.	21.1 – 21.4

6.23.14 Sample Assessment materials

Assessment 1: Studio 'Driving test' Examination

Each participant will undergo a practical exam in a professional studio environment. During the exam, each participant will be required to fulfil a range of tasks set by the instructor in the studio. These should include:

- setup of a large format console
- Patching of outboard equipment and effects
- Utilizing multi-channel personnel headphone system
- Channel grouping
- Studio Loudspeaker patching

Once complete, participants will be provided with a previously recorded multi-track session for which they will configure for automation on the console software. Each will then be required to perform several passes of automation to build a 'mix'. The mix must then be re-recorded onto a stereo recording system, and the automation saved.

Participants will also be expected to employ appropriate trouble shooting techniques to eliminate any problems during the process. Particular attention will be paid to time management and communication throughout the process.

Assessment 2: Recording - Live
Participants will be required to produce a 'live' recording. E.g., orchestral ensemble or large band.

The piece(s) must be performed as one recording in the studio. A multi-track recording will be made of each instrument using mono, and stereo recording. Room recording should also be carefully considered.   Overdubs are not permitted, all elements must be recorded simultaneously
Once complete, a stereo wav file, will be submitted, as well as documentation detailing the recording process with respect to technique and separation in the studio environment.

Assessment 3: Client E.P project
Participants are asked to source a client, on negotiation with tutor; and record an E.P / album with the client. Participants will manage this project from rehearsal/pre-production stage, through to finished mixes.