Music Technology Projects - Foundation

LEVEL 2	15 TCE CREDIT POINTS
COURSE CODE	AUD215115
COURSE SPAN	2015 — 2019
COURSE STATUS	CLOSED
READING AND WRITING STANDARD	NO
MATHEMATICS STANDARD	NO
COMPUTERS AND INTERNET STANDARD	NO

Music Technology Projects - Foundation is a Level 2 course which requires learners to have an interest in audio design and sound technology

There are 5 compulsory units of study: The Physics of Sound, Microphone Characteristics and Techniques, Signal Flow and System Use, Mix Aesthetics and Professional Practice. Music Technology Projects - Foundation provides a pathway to Music Technology Level 3.

Rationale

This course is designed to allow learners opportunities to develop foundation skills across a wide range of aspects of audio design. Learners will carry out tasks and activities that involve developing a range of knowledge and skills, including some basic theoretical and/or technical knowledge and skills relevant to the wider audio/music technology industry.

Aims

This course aims to provide learners with:

- a basic understanding of the music technology production processes and post-production skills
- practical skills in music technology
- an understanding of the role audio engineering and music technology has in the contemporary arts.

Learning Outcomes

On successful completion of this course, learners will be able to:

- plan, organise and complete simple audio related activities
- identify various needs of audio engineering clients, musicians and production personnel
- identify workplace safety issues and meet workplace safety requirements
- employ a range of audio engineering techniques to meet requirements of given musical styles and audio products
- identify and solve simple audio problems and issues
- safely set up and operate basic audio systems
- select and operate equipment appropriate to specific, simple audio tasks.

Pathways

This foundation course provides knowledge and skills that prepare learners for the UTAS course *Music Technology*.

Resource Requirements

Delivery of this course will require learner access to, and use of specialised equipment including:

- a selection of dynamic and condenser microphones and appropriate hardware including pop filters, mic stands, acoustic screen/barriers
- DAW that includes: an audio mixing console; hard drive recording device; AD-DA converter (e.g. Mbox; computer editing software (e.g. Protools/Cubase)); software or hardware processors (e.g. WAVES plugins, compressor/noise-gate units); monitoring systems (e.g. speakers and headphones); and purpose built isolation options
- music technology applications (such as sampling, virtual instruments loop based composition software and MIDI sequencing)
- live sound equipment including: an audio mixing console; front-of-house speakers and stage foldback monitors; amplifiers; signal processors (e.g. equalisers, reverberation units, noise gates and compressors).

Course Size And Complexity

This course has a complexity level of 2.

At Level 2, the learner is expected to carry out tasks and activities that involve a range of knowledge and skills, including some basic theoretical and/or technical knowledge and skills. Limited judgement is required, such as making an appropriate selection from a range of given rules, guidelines or procedures. VET competencies at this level are often those characteristic of an AQF Certificate II.

This course has a size value of 15.

Course Requirements

This course has five (5) areas of compulsory study:

1. The Physics of Sound
2. Microphone Characteristics and Techniques
3. Signal Flow and System Use
4. Mix Aesthetics
5. Professional Practice.

The five areas of study will be delivered and assessed in the order in which they are listed.

It is recommended that the areas be given the following approximate percentage of delivery time:

Area	Topic	%
1	The Physics of Sound	10%
2	Microphone Characteristics and Techniques	20%
3	Signal Flow and System Use	30%
4	Mix Aesthetics	30%
5	Professional Practice	10%

Course Content

AREA 1 – THE PHYSICS OF SOUND

Learners will study how sound is:

- created – vibration, waveforms (compression and rarefaction), timbre, pitch (frequency)
- transmitted – soundwaves, how humans hear, sources of sound
- measured – decibel/amplitude/loudness, frequency.

AREA 2 – MICROPHONE CHARACTERISTICS AND TECHNIQUES

Learners will study:

- how microphones work – tranducer types – dynamic, condenser, ribbon
- microphone characteristics and design features – pick up patterns, sensitivity, frequency response, diaphragm size
- using microphones in an appropriate manner – mic placement and suitability for various applications, stereo imaging, accurate reproduction of sound.

AREA 3 – SIGNAL FLOW AND SYSTEM USE

Learners will study:

- how audio systems are constructed – correct components and patching/connection
- how to safely power up and power down audio systems
- how signal flows through a system – pathway and gain structure.

AREA 4 – MIX AESTHETICS

Learners will study:

- mixing techniques – instrument balance, stereo placement, editing
- signal processing – compression, noise gates, effects
- awareness of audio requirements of a selected range of musical styles.

AREA 5 – PROFESSIONAL PRACTICE

Learners will study:

- work place safety procedures relevant to the audio industry including:
    - the identification of potential hazards/sources of injury (such as electrical hazards)
    - correct lifting of equipment
    - appropriate placement of equipment and leads
    - hearing health
    - potential consequences of hazardous situations
    - procedures for the reporting of potential hazards/sources of injury
    - emergency procedures (such as evacuation plans)
    - the obligations of employees and employers regarding workplace safety issues (including legal and ethical obligations)
- problem solving
    - anticipate, identify and resolve a range of audio issues
    - justify choices when preparing for, and engaging in project work
- working effectively with other people including:
    - liaison skills
    - sensitivity to the needs of others
    - observing WHS protocols
    - using appropriate etiquette
    - appropriate care of equipment

    - communicating effectively
    - providing required technical support
    - developing skills in relation to the organisation of self.

Work Requirements

Learners must engage in a range of audio tasks including:

- Stereo recording
- Audio product creation (such as a radio commercial)
- Individual instrument miking (including but not limited to voice, drum kit, acoustic/electric guitar, piano)
- Sound design (soundtrack to video, preparation of dance tracks, sound effects)
- Small ensemble recording (using close and distant/multi-miking miking techniques)
- Sound reinforcement system set up and operation (for example: vocal in a rock band, background music, playing of sound effects).

Learners must complete two finished products for final assessment negotiated from the range of audio tasks suggested and provide supporting documentation encompassing intent, process and evaluation.

Assessment

Criterion-based assessment is a form of outcomes assessment that identifies the extent of learner achievement at an appropriate end-point of study. Although assessment – as part of the learning program – is continuous, much of it is formative, and is done to help learners identify what they need to do to attain the maximum benefit from their study of the course. Therefore, assessment for summative reporting to TASC will focus on what both teacher and learner understand to reflect end-point achievement.

The standard of achievement each learner attains on each criterion is recorded as a rating 'A', 'B', or 'C', according to the outcomes specified in the standards section of the course.

A 't' notation must be used where a learner demonstrates any achievement against a criterion less than the standard specified for the 'C' rating.

A 'z' notation is to be used where a learner provides no evidence of achievement at all.

Providers offering this course must participate in quality assurance processes specified by TASC to ensure provider validity and comparability of standards across all awards. To learn more, see TASC's quality assurance processes and assessment information.

Internal assessment of all criteria will be made by the provider. Providers will report the learner's rating for each criterion to TASC.

Quality Assurance Process

The following processes will be facilitated by TASC to ensure there is:

- a match between the standards of achievement specified in the course and the skills and knowledge demonstrated by learners
- community confidence in the integrity and meaning of the qualification.

Process – TASC will verify that the provider's course delivery and assessment standards meet the course requirements and community expectations for fairness, integrity and validity of qualifications TASC issues. This will involve checking:

- learner attendance records; and
- course delivery plans (the sequence of course delivery/tasks and when assessments take place):
    - assessment instruments and rubrics (the 'rules' or marking guide used to judge achievement)
    - class records of assessment
    - examples of learner work that demonstrate the use of the marking guide
    - samples of current learner's work, including that related to any work requirements articulated in the course document.

This process will usually also include interviews with past and present learners.

It will be scheduled by TASC using a risk-based approach.

Criteria

The assessment for Music Technology Projects – Foundation Level 2 will be based on the degree to which the learner can:

1. use simple techniques to shape an audio product
2. apply time management, planning and negotiation skills to audio tasks
3. identify audio requirements of a given range of music styles and audio products
4. respond to needs of audio engineering clients and personnel
5. apply workplace safety practices in audio engineering environments

Standards

Criterion 1: use simple techniques to shape an audio product

The learner:

Rating A	Rating B	Rating C
employs a range of audio engineering techniques* and provides clear and appropriate justification for choices made	employs audio engineering techniques* and provides clear justification for choices made	employs basic audio engineering techniques* and can provide justification for choices made
uses of volume and pan to create a sonic picture with width and depth	uses volume and pan so that all mix elements are clear, well-spaced and audible	uses volume and pan so that most mix elements are clear and audible
appropriately uses equalisation and compression on all necessary elements to improve clarity across mix - as required by style and instrumentation	uses equalisation and compression on elements to improve clarity across mix - as required by style and instrumentation	uses equalisation and compression to change mix elements, as directed
uses simple and some complex editing techniques to shape an audio product with strong flow and structure.	uses a range of simple audio editing techniques to create a structured soundbed.	uses simple editing techniques to shape an audio product.

** 'Engineering techniques' include, but are not limited to use of signal processing equipment, compression, noise gates, equalisers and effects.*

Criterion 2: apply time management, planning and negotiation skills to audio tasks

The learner uses time management strategies, planning and negotiation skills to complete audio tasks. The learner:

Rating A	Rating B	Rating C
identifies time, materials and equipment needed to complete audio tasks, and employs a systematic and planned approach to their use	identifies time, materials and equipment needed to complete audio tasks, and employs a planned approach to their use	identifies time, materials and equipment needed to complete audio tasks
identifies, proposes and negotiates complex goals which are measurable, achievable and realistic	proposes and negotiates complex goals which are measurable, achievable and realistic	negotiates goals which are measurable, achievable and realistic
evaluates, selects and uses planning tools and strategies to achieve objectives and manage activities within proposed audio times	selects and uses planning tools and strategies to achieve objectives and manage audio activities within proposed times	uses planning tools to achieve objectives within proposed times
reflects – orally and in writing – on progress towards meeting goals and timelines, assesses progress and plans effective future actions	reflects – orally and in writing – on progress towards meeting goals and timelines, assesses progress and plans future actions	reflects – orally and in writing – on progress towards meeting goals and timelines, and articulates some ways in which goals will be met in the future
meets specified/negotiated timelines and addresses all required task characteristics* with a high degree of accuracy.	meets specified/ negotiated timelines and addresses all required task characteristics*.	meets specified/negotiated timelines and addresses most aspects of required task characteristics*.

** 'required task characteristics' may include: requirements given in a brief; mode of response; and presentation requirements.*

Criterion 3: identify audio requirements of a given range of music styles and audio products

The learner:

Rating A	Rating B	Rating C
describes** balance, dynamics and tone colour requirements across all given music styles and specified audio products	identifies balance, dynamics and tone colour requirements across a given range of targeted music styles and specified audio products	identifies* basic balance, dynamics and tone colour requirements across a given range of targeted music styles and specified audio products
explains technical requirements across a given range of music styles and specified audio products	describes technical requirements across a given range of music styles and specified audio products	identifies technical requirements of some given music styles and specified audio products
uses appropriate signal processing across given music styles and specified audio products	uses appropriate signal processing across some given music styles and specified audio products	uses simple signal processing across some given music styles and specified audio products
appropriately selects or modifies a recording environment for given music styles and specified audio products.	selects or modifies a recording environment for some given music styles and specified audio products.	modifies a recording environment as directed.

* *Identify: to point out, name, list, distinguish, recognise, establish or indicate who or what someone or something is.*

** *Describe: to recount, tell of/about, chronicle, comment on, give an account of characteristics or features.*

Criterion 4: respond to needs of audio engineering clients and personnel

The learner:

Rating A	Rating B	Rating C
explains*** importance of liaison, workplace safety and etiquette working in audio settings	describes** importance of liaison, workplace safety and etiquette when working in audio settings	identifies* importance of liaison, workplace safety and etiquette when working in audio settings
explains and uses protocols and etiquettes appropriate to needs of clients, musicians and production personnel in familiar and unfamiliar settings	describes and uses protocols and etiquettes appropriate to needs of clients, musicians and production personnel in familiar settings	identifies and uses basic protocols and etiquettes appropriate to needs of clients, musicians and production personnel in familiar settings
provides appropriate technical support to meet requirements of clients, musicians and production personnel	provides appropriate technical support to meet some requirements of clients, musicians and production personnel	provides technical support to meet some of the requirements of clients, musicians and production personnel. Support may not always be appropriate to need
clearly communicates ideas and information to clients, musicians and production personnel.	clearly communicates basic ideas and information to clients, musicians and production personnel.	communicates basic ideas and information to clients, musicians and production personnel.

* *Identify: to point out, name, list, distinguish, recognise, establish or indicate who or what someone or something is.*

** *Describe: to recount, tell of/about, chronicle, comment on, give an account of characteristics or features.*

*** *Explain: to make plain, clear, intelligible, to describe in detail, revealing relevant facts.*

Criterion 5: apply workplace safety practices in audio engineering environments

The learner:

Rating A	Rating B	Rating C
recognises and appropriately re-acts and reports hazards and potential hazards in audio engineering environments	recognises hazards in audio engineering environments and re-acts appropriately	recognises hazards in audio engineering environments and re-acts as directed
correctly describes steps of common emergency procedures in audio engineering environments, and explains*** their significance	correctly describes** steps of common emergency procedures in audio engineering environments	correctly identifies* steps of common emergency procedures in audio engineering environments
follows established safety procedures for use of audio engineering equipment and facilities	follows established safety procedures for use of audio engineering equipment and facilities, with some direction	follows established safety procedures for use of audio engineering equipment and facilities, as directed
safely uses techniques, processes, tools and materials to make audio products.	safely uses techniques, processes, tools and materials to make audio products, with some direction.	safely uses techniques, processes, tools and materials to make audio products, as directed.

* *Identify: to point out, name, list, distinguish, recognise, establish or indicate who or what someone or something is.*

** *Describe: to recount, tell of/about, chronicle, comment on, give an account of characteristics or features.*

*** *Explain: to make plain, clear, intelligible, to describe in detail, revealing relevant facts.*

Qualifications Available

Music Technology Projects – Foundation Level 2 (with the award of):

EXCEPTIONAL ACHIEVEMENT

HIGH ACHIEVEMENT

COMMENDABLE ACHIEVEMENT

SATISFACTORY ACHIEVEMENT

PRELIMINARY ACHIEVEMENT

Award Requirements

The final award will be determined by the Office of Tasmanian Assessment, Standards and Certification from 5 ratings.

The minimum requirements for an award in Music Technology Projects - Foundation Level 2 are as follows:

EXCEPTIONAL ACHIEVEMENT
4 'A' ratings, 1 'B' rating

HIGH ACHIEVEMENT
2 'A' ratings, 2 'B' ratings, 1 'C' rating

COMMENDABLE ACHIEVEMENT
3 'B' ratings, 2 'C' ratings

SATISFACTORY ACHIEVEMENT
4 'C' ratings

PRELIMINARY ACHIEVEMENT
2 'C' ratings

A learner who otherwise achieves the ratings for a SA (Satisfactory Achievement) award but who fails to show any evidence of achievement in one or more criteria ('z' notation) will be issued with a PA (Preliminary Achievement) award.

Course Evaluation

The Department of Education's Curriculum Services will develop and regularly revise the curriculum. This evaluation will be informed by the experience of the course's implementation, delivery and assessment.

In addition, stakeholders may request Curriculum Services to review a particular aspect of an accredited course.

Requests for amendments to an accredited course will be forwarded by Curriculum Services to the Office of TASC for formal consideration.

Such requests for amendment will be considered in terms of the likely improvements to the outcomes for learners, possible consequences for delivery and assessment of the course, and alignment with Australian Curriculum materials.

A course is formally analysed prior to the expiry of its accreditation as part of the process to develop specifications to guide the development of any replacement course.

Course Developer

The Department of Education acknowledges the significant leadership of the Conservatorium of Music, the University of Tasmania, and Simone Cunliffe in the development of this course.

Expectations Defined By National Standards

There are no statements of national standards relevant to this course.

Accreditation

The accreditation period for this course is from 1 January 2015 to 31 December 2019.

Version History

Version 1 – Accredited on 1 October 2014 for use in 2015 to 2019. This course replaces Audio Design – Foundation (AUD215110) that expired on 31 December 2014.

Supporting documents including external assessment material

-  AUD215115CourseAccreditation.pdf (2017-07-21 01:05pm AEST)

PDF generated on: 2020-07-10 19:27:58 AEST
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