Advanced Higher Music Technology

Centre approval requirements

Guidelines for centre staff

To gain approval to deliver Advanced Higher Music Technology, centres must demonstrate the potential to deliver the qualification successfully.

Delivery experience

Centres should have staff with appropriate experience to deliver the Advanced Higher Music Technology course. They must provide SQA with evidence that they have successfully delivered some or all of the following qualifications:

- Higher Music Technology
- units from the National Certificate in Sound Production at SCQF level 6
- National Progression Awards in Sound Production: Live and/or Sound Production: Recording at SCQF level 6
- Higher National units at SCQF level 7, such as:
  - *Sound Production: Recording and Mixing*
  - *Sound Production: Digital Audio Workstations*
  - *Sound Production: Audio Skills*
  - *Audio Post Production: An Introduction*

Assessors and internal verifiers must answer questions about how they would deliver the skills listed in the course specification and how they would support their candidates through the course.

Technical requirements

Candidates develop and extend their knowledge and understanding of music technology by engaging in practical, research-based independent learning in a chosen context. They develop technical and creative skills through practical learning, and the course gives considerable scope for personalisation and choice through the contexts for learning.

The course aims to enable candidates to:

- to develop and extend skills in:
  - investigating and analysing of audio recording and production techniques, including relevant musical analysis where appropriate
  - using music technology hardware and software to capture, manipulate and master audio
- apply music technology skills creatively in a large-scale production within a chosen context

Centres must ensure they have the required technical resources to support candidates to meet these specific aims.

The production project is a significant component (95 marks out of 135 marks) of the course assessment and candidates need access to the appropriate technical resources to successfully undertake this component. Due to the nature of stage 2b of the research project (experimenting with music technology skills, techniques and processes), candidates also need access to the appropriate technical resources while undertaking their research.

Centres need access to at least one multi-track recording studio that is set up with hardware, for example an audio interface that allows for a minimum of eight simultaneous, discrete inputs. This should be complemented by individual digital audio workstations (DAWs), which may have fewer inputs for use by candidates. With this arrangement, candidates can use studio facilities for elements of their projects that require this, while completing editing and mixing on individual DAW workstations.

Each candidate should have access to an individual DAW. If this is not possible, centres should make alternative arrangements to allow sufficient access for candidates, for example by alternative approaches to timetabling and/or access to facilities outwith class time.

Hardware

The following technical requirements are the minimum centres should have:

- at least two types of microphone, for example dynamic, condenser
- at least two polar patterns, for example cardioid, omnidirectional
- a matched/stereo pair of small diaphragm condenser microphones with the necessary polar patterns that allow candidates to select and use appropriate stereo microphone techniques, for example spaced pair (AB), coincident pair (XY)
- at least one condenser microphone that can operate in a figure of eight (bi-directional) polar pattern, which allows candidates to select and use mid-side (M/S) microphone techniques
- access to sufficient additional microphones to enable, for example large-scale multi-tracking of acoustic sources
- appropriate cabling and stands for microphones
- the ability to record from mono and stereo direct line and instrument level sources
- headphones for performer monitoring
- a monitoring system for control room monitoring
- multi-track recording, editing and mixing systems — see next section

Multi-track recording, editing and mixing equipment

Candidates should have access to DAW systems based around a computer with appropriate software and hardware. Suitable studio and individual workstation specifications are as follows:

For a studio system:

- a hardware audio interface with a minimum of eight microphone inputs and line inputs for a studio system
- a computer with more than the minimum RAM and processor requirements as recommended by the manufacturer of the DAW software
- an external digital storage device
- a MIDI keyboard featuring assignable controllers
- recording and sequencing software — see separate list of DAW software requirements below

For an individual DAW:

- a hardware audio interface with a minimum of two microphone inputs and line inputs
- a computer with more than the minimum RAM and processor requirements as recommended by the manufacturer of the DAW software
- an external digital storage device
- a MIDI keyboard featuring assignable controllers
- recording and sequencing software — see separate list of DAW software requirements below

DAW software requirements:

For both studio, and individual DAW, the DAW software in use must meet the following minimum capabilities to allow candidates to:

- record from multiple audio sources simultaneously onto separate tracks
- allow overdubbing
- edit recorded audio and MIDI tracks
- edit (compile) multiple takes of audio material into a single take
- create sends and returns for effects
- create insert effects
- allow sidechain control of dynamic effects
- allow bussing/grouping of tracks
- automate volume, panning and effect/instrument plugin parameters
- perform advanced dynamics processing including multiband compression, side-chained compression and brick wall limiting
- perform time domain and other effects processing including EQ, delay, echo, reverb, chorus, phase, flange
- select and use virtual/MIDI instruments with control over parameters such as ADSR envelopes, LFO, filter