

Advanced Higher Music Technology – Success Criteria

Skills, knowledge and understanding:

- ✓ Selecting and using appropriate audio input devices and sources.
- ✓ Planning, applying, and justifying microphone placement techniques, including stereo techniques.
- ✓ Designing and constructing the signal path for multiple inputs.
- ✓ Setting input gain and monitoring levels.
- ✓ Overdubbing and editing tracks.
- ✓ Applying and justifying the use of creative and corrective equalisation and dynamics processing.
- ✓ Creatively using time domain, modulation and other effects.
- ✓ Applying a wide range of mixing techniques and editing a minimum of three takes into a single take (comping).
- ✓ Mastering.
- ✓ Advanced compression techniques (including side-chain and multi-band compression) and their common usage.
- ✓ MIDI sequencing and virtual instruments (VIs).

Level: Advanced Higher	Music Technology. I can...
Research practice dissertation :	Project 1
Information	<ul style="list-style-type: none"> ✓ Choosing reliable sources. ✓ Investigating and analysing. ✓ Experimenting. ✓ Synthesising. ✓ Referencing. ✓ Presenting findings in suitable formats.
Identifying an appropriate research topic in a music technology context, and produce an outline specification:	<ul style="list-style-type: none"> <input type="checkbox"/> An overview of their intentions. <input type="checkbox"/> A timeline detailing realistic timescales for completing project tasks, as well as scheduling of recording sessions and logistic concerns. <input type="checkbox"/> Proposed resources, including reference materials, hardware, and software. <input type="checkbox"/> The projected outcomes.
Investigating and analysing technology skills, techniques, and processes, and relevant musical analysis as appropriate:	<ul style="list-style-type: none"> <input type="checkbox"/> A clear identification of investigated and analysed skills, techniques, and processes. <input type="checkbox"/> An in-depth investigation and analysis of identified skills, techniques, and processes.

Experimenting with music technology skills, techniques, and processes:	<ul style="list-style-type: none"> <input type="checkbox"/> Short media files and detailed descriptions, demonstrating experimentation with identified skills, techniques and processes.
Synthesising investigation, analysis, experimentation, and drawing conclusions:	<ul style="list-style-type: none"> <input type="checkbox"/> Summary, linking investigation and analysis, and experimentation, making recommendations and drawing conclusions based on evidence, detailing the impact on their own practice. <input type="checkbox"/> Develop arguments for and against each practice. <input type="checkbox"/> Provide conclusions based on the impact their findings had on their own practice. <input type="checkbox"/> Make recommendations on the appropriateness of each approach in different contexts.
Organising and presenting, including using information from a range of sources:	<ul style="list-style-type: none"> <input type="checkbox"/> Completed report, containing material produced in stage 1 and stage 2, organised and presented in a suitable and appropriate format, including suitable references to sources of information. <input type="checkbox"/> Be well-structured. <input type="checkbox"/> Maintain focus on their specified project outcomes. <input type="checkbox"/> Develop in a logical and convincing manner.
Level: Advanced Higher	Music Technology. I can...
Large scale audio production:	Project 1
Defining a project brief:	<ul style="list-style-type: none"> <input type="checkbox"/> Dissertation executive summary. <input type="checkbox"/> Give details of the proposed instrumentation provide a short description of the skills and techniques they intend to apply. <input type="checkbox"/> Give details of the skills and techniques they synthesised into their own practice when undertaking the research project, or through additional research and investigation.
Planning the production:	<ul style="list-style-type: none"> <input type="checkbox"/> A detailed performance plan for the musical elements of the production, if appropriate to their selected context. <input type="checkbox"/> A production plan that describes how each sound element will be recorded and/or created, including microphone types, pattern, and placements, and the reasons for choices. <input type="checkbox"/> A mixing plan, including intended use of effects, processes, and automation, and the reasons for choices. <input type="checkbox"/> A detailed sound design map containing each element of the soundtrack (for example, sound design, Foley, dialogue, and/or music), if appropriate to their selected context. <input type="checkbox"/> A detailed production plan itemising each piece of sound design, Foley or dialogue, including planning of microphone type, process and position, EQ, effects,

	<p>processing, and automation, if appropriate, to their selected context.</p> <ul style="list-style-type: none"> <input type="checkbox"/> An outline of the music required (in Foley and sound design projects, if appropriate). <input type="checkbox"/> An updated record of progress, documenting the planning process for this stage. <input type="checkbox"/> A schedule of dates for intended sessions. <input type="checkbox"/> Details of when particular instruments will be recorded. <input type="checkbox"/> Justifications of the reasons why they are being recorded in this order.
<p>Implementing the production – Audio capture:</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Experimenting with microphone and capture techniques (for example, using multi-mic'ing and ambient or room mic'ing). <input type="checkbox"/> Selecting and making appropriate and justified use of at least two types of microphone and two polar patterns, with: <ul style="list-style-type: none"> <input type="checkbox"/> Placement appropriate to the sound source. <input type="checkbox"/> Use of at least one stereo recording technique. <input type="checkbox"/> Selecting and making appropriate and justified use of at least one source that requires a direct line input. <input type="checkbox"/> Setting appropriate input gain and monitoring levels, with no distortion. <input type="checkbox"/> Selecting and using virtual and/or MIDI instruments to create electronic sound and/or music where appropriate to the candidate's project. <input type="checkbox"/> Successfully designing and safely constructing the signal path for multiple inputs. <input type="checkbox"/> Overdubbing at least one track. <ul style="list-style-type: none"> <input type="checkbox"/> Multi-mic'ing a drum kit. <input type="checkbox"/> Stereo mic'ing acoustic guitar. <input type="checkbox"/> Multiple close mics and distance mic's on guitar cabinets. <input type="checkbox"/> DI'ing and mic'ing bass guitar cabinets. <input type="checkbox"/> Auditioning multiple microphones on singers and other sources, using appropriate microphone types, polar patterns, and placement.
<p>Implementing the production – processing skills:</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Applying extensive creative and corrective equalisation that is appropriate to the material. <input type="checkbox"/> They must provide reasons and justify their choices in their progress record in at least six instances. <input type="checkbox"/> Applying extensive dynamics processing, including the use of compression and/or side-chain compression and/or limiting, and/or noise gate. They must provide reasons and justify their choices in their progress record in at least six instances.

	<ul style="list-style-type: none"> <input type="checkbox"/> Extensive editing of tracks, including editing a minimum of three takes into a single take (comping) and accurate topping and tailing. <input type="checkbox"/> Awareness of plug-in gain staging and demonstrate their knowledge of typical settings for the sound source. <input type="checkbox"/> Evidence of detailed manipulation of a processor's controls
Implementing the production — applying effects:	<ul style="list-style-type: none"> <input type="checkbox"/> In at least six instances, extensive application of time domain and other effects, including at least three from: <ul style="list-style-type: none"> ▪ Delay. ▪ Echo. ▪ Reverb ▪ Chorus. ▪ Phase. ▪ Flange. <input type="checkbox"/> The candidate must give reasons and justify their choices in their progress record. <input type="checkbox"/> If appropriate to the candidate project, in at least six instances: <ul style="list-style-type: none"> ▪ Extensive manipulation of the controls of virtual and/or MIDI instruments (for example, ADSR envelopes, LFO, and filter). ▪ Reasons and justification for their choices in their progress record.
Implementing the production — mixing and sequencing skills:	<ul style="list-style-type: none"> <input type="checkbox"/> Reference recordings (commercial mixes in the same genre or context they used to compare with their own mixing). <input type="checkbox"/> Applying an extensive range of mixing techniques, including using volume, panning, automation, send and insert effects, and grouping/bussing to achieve a balanced and creative mix. <input type="checkbox"/> Accurate synchronisation and/or sequencing in complex scenarios involving multiple takes and/or simultaneous events. <input type="checkbox"/> Mixing down to an audio pre-master in appropriate file format(s).
Implementing the production — creative and appropriate use of sound and/or music:	<ul style="list-style-type: none"> <input type="checkbox"/> Candidates should show how creative they can be with the use of sounds through the implementations of audio choice and treatment of effects and processes.
Mastering the production — analysis and critical listening skills:	<ul style="list-style-type: none"> <input type="checkbox"/> Reference recordings (commercial masters in the same genre or context that the candidate used to compare with their own mastering). <input type="checkbox"/> Candidate analysis and critical listening commentary, including detailed comparisons with reference recordings and proposed mastering decisions.

<p>Mastering the production — finalising and mastering techniques:</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Detailed description of the mastering chain, with detailed evidence of A-B'ing against reference recordings as the mastering session progresses. <input type="checkbox"/> Detailed use of creative and corrective equalisation at an appropriate point or points in the mastering chain. <input type="checkbox"/> Detailed use of compression at an appropriate point or points in the mastering chain, both as a level enhancing tool and to control dynamic range, including the use of multi-band compression, where appropriate. <input type="checkbox"/> Use of stereo imaging and enhancement tools (such as valve and tape emulators, preamp modelling and saturation plug-ins), mid/side processing and dithering as appropriate. <input type="checkbox"/> Topping and tailing and final DAW editing as appropriate. <input type="checkbox"/> Limiting, finalising, and bouncing down to an audio master in an appropriate file format (and, for Foley or computer game productions, the relevant video or game sequence).
<p>Evaluating and reflecting:</p>	<ul style="list-style-type: none"> <input type="checkbox"/> Work that they have produced, and their experience of undertaking the production project. <input type="checkbox"/> Planning. <input type="checkbox"/> Recording and creating. <input type="checkbox"/> Editing and processing. <input type="checkbox"/> Mastering. <input type="checkbox"/> Final mix, including: <ul style="list-style-type: none"> ○ Justification of significant technical and creative decisions. ○ Suggestions for improvements, and information about how these suggestions could be achieved, in both the development and production processes.

What will be taken into consideration when deciding on a teacher-estimated grade for Advanced Higher Music Technology?

- Project 1 – Research project (Dissertation – 2500/3000 words) 30%
- Project 2 - Recording and manipulating a large scale audio production with mastering – 70%
- Commitment and Quality in class/homework.