

-SQA-SCOTTISH QUALIFICATIONS AUTHORITY

**Hanover House
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NATIONAL CERTIFICATE MODULE DESCRIPTOR

-Module Number-	0091316	-Session-1989-90
-Superclass-	KG	
-Title-	MUSIC PRODUCTION AND SOUND ENGINEERING: STEREO SOUND RECORDING 2	
-DESCRIPTION-		
Purpose	The purpose of this module is to consolidate and extend the student's skills in stereo sound recording. The module is designed for those students with previous experience in recording and may be offered with many of the other National Certificate Music modules.	
Preferred Entry Level	91315 Music Production and Sound Engineering: Stereo Sound Recording 1 or 91317 Music Production and Sound Engineering: Four Track Sound Recording 1 or evidence of proficiency in skills equivalent to the above.	
Learning Outcomes	<ol style="list-style-type: none">1. demonstrate a practical ability in using stereo sound production and mixing equipment;2. produce stereo recordings of music which is being performed live using multi microphone techniques.	
Content/ Context	<p><u>Corresponding to Learning Outcomes 1-2:</u></p> <p>NB: Safety procedures and safe working practices must be observed at all times.</p> <ol style="list-style-type: none">1. Functions and purposes, assembly, interconnection, operation and dismantling of equipment to include: plugs/sockets, fuses, amplifier, power cables and audio leads, speakers, headphones, microphones, microphone stands, tapes with bias compatible with equipment, stereo tape deck, mixing equipment e.g. separate mixing desk or use of mixing facilities on a "portable home studio".	

Correct impedance matching of equipment; correct phasing of microphones and speakers; correct arrangement of power cables and audio leads; appropriate arrangement of microphone cable runs with regard to problems of electrical interference and hum.

Care and maintenance of equipment with regard to tidiness and a methodical approach both when in use and in transportation; tape storage, tape-head cleaning, tape head demagnetisation; safety procedures including regular inspection of all power and audio leads and connectors.

2. Recording procedures to include:

use of separate acoustical area for performers ('studio') and sound engineers ('control room');

multi-microphone techniques (eg. 'spot' microphones, stereo pair/systems and 'spot' microphones) with appropriate pick up patterns;

microphone placement and studio layout with regard to acoustical problems of reverberation time, separation, phase cancellations, off axis coloration, 'proximity effect';

signal routing;

live microphone mixing (using a minimum of 4 channels) to produce stereo recordings with reference to recording levels, balance, panning, equalisation, stereo image, cueing and fading, input and output levels.

monitoring on loudspeakers;

talkback system; use of record of session sheet with details of size/type of ensemble, location, microphone placement, input 'trim/ sensitivity' levels, fader levels, equalisation, panning.

Suggested
Learning and
Teaching
Approaches

The Learning Outcomes should be developed through an integrated programme with the routines supporting the central outcome, ie the production of stereo master recordings using multi microphone techniques. The tutor should advise, facilitate and teach directly employing varied approaches which include demonstration and discussion. Care should be taken throughout the module to adjust teaching approaches according to each student's needs.

The size of the teaching group will be determined by the availability of equipment but it is essential that each student is continuously engaged in practical tasks. Tutors should be aware of the advantages of running this module in conjunction with others such as Music Making, Music Invention and Listening to Music: viable teaching groups should be formed where the amount of sound recording equipment is limited; students who are competent musicians can employ their skills in taking part as performers in recording sessions; a range of competencies can be developed, providing the students with the opportunities to be certificated in more than one module.

Students should be encouraged to take a good measure of responsibility for their own learning, e.g. in personal routines and general duties. The importance of individual responsibilities and well structured work routines should be outlined during induction and regularly reinforced and the needs of other students emphasised. Students should be given the opportunity, where possible, to work as a team. Opportunities to liaise with performance personnel should be encouraged in order to develop an awareness of the distinctive needs of performers and sound engineers.

Students should work from progressive pre-prepared units of work which include core, remedial and extension materials which allow them to progress at their own level and pace. They should also be encouraged to use structured materials, trade magazines and books for reference. Well produced worksheets with graphics, illustrating equipment and practical procedures, can assist in the management of programmes of work and the execution of skills. They can also be invaluable in promoting independent study habits.

Teaching methods could involve work stations, each catering for two or three students in different tasks to ensure full student participation. The simultaneous operation of several different work stations would allow more than one activity to take place within the teaching block. Individual targets should be reviewed at the beginning of each lesson but students studying for this module would be expected to apply themselves with a significant degree of independence and tackle longer-term goals, perhaps spanning several lessons. They should be encouraged to work with aural and technical awareness and to engage in critical analysis of their own and others' efforts. Students

should keep tape recordings of work which they have engineered

along with a note of the details, location and date. These recordings should be used as a basis for discussion with the tutor and with other students and also as a record of the student's achievement. The tapes may also be used for teaching purposes.

The student should be encouraged to use and respond freely to technical language, verbal or written, as it affects work routines and course organisation. Any form of written support which allows the student to work with the minimum of assistance should be adopted.

Assessment

Procedures

Formative assessment should operate as an integral part of learning and teaching in the module. It may include assessment of the student's work by the tutor, by the student and by peers. This will be achieved in the main through discussion of work completed, and should be supported by the tutor's checklist. Work should be recorded on audio for playback and review. Each student should keep a diary of work during this module. Diaries and audio recordings should be available to a Subject Assessor. Each student should be issued with a record sheet at the outset of the module and its various purposes should be explained:

- (a) it informs the students of the minimum which is taught and learned;
- (b) it informs the students of the learning/teaching activities they will undertake (this section of the record sheet is open and is completed by the tutor);
- (c) it provides a continuous record of attainment and should help both students and tutors to keep a track of learning and teaching;
- (d) it could be used by students to inform a third party (e.g. a potential employer) of what they have learned.

The performance criteria which follow provide tutors and students with a statement of the minimum performance which is judged to be acceptable in the key aspects of each Learning Outcome. A decision on whether or not a student has achieved the criteria should be taken only after he/she has had the benefit of additional teaching support in areas of weakness and the opportunity to revise and improve on unsatisfactory efforts.

Acceptable performance in the module will be satisfactory achievement of all the performance criteria specified for each Learning Outcome.

The following abbreviations are used below:

- LO Learning Outcome
- IA Instrument of Assessment
- PC Performance Criteria

NB. Safety procedures and safe working practices should be observed at all times.

LO1 DEMONSTRATE A PRACTICAL ABILITY IN USING STEREO SOUND PRODUCTION AND MIXING EQUIPMENT

PC The student:

- (a) correctly assembles and interconnects equipment;
- (b) correctly operates equipment;
- (c) correctly dismantles equipment;
- (d) consistently demonstrates good working practices with regard to safety, efficiency and the care of all equipment.

IA Practical Exercises and Record of Work

The student will be involved in practical exercises which will test his/her ability consistently to assemble, interconnect, operate, dismantle and care for equipment. Over the four performance criteria, the following pieces of equipment must be used at least once:

plugs/sockets, power cables and audio leads, fuses, amplifier, speakers, headphones, microphones, microphone stands, stereo tape deck and mixing equipment i.e. separate mixing desk or use of mixing facilities on a "portable home studio".

The student will maintain a diary or record of work containing observation checklists and details of practical exercises countersigned and dated by the tutor.

Satisfactory performance will be based on evidence contained in the record of work that equipment has been used competently and that the student has consistently demonstrated good working practices with regard to safety, efficiency and care of all equipment.

LO2 PRODUCE STEREO RECORDINGS OF MUSIC WHICH IS BEING PERFORMED LIVE USING MULTI MICROPHONE TECHNIQUES

PC The student produces accurate stereo recordings appropriate to the chosen musical style which demonstrate use of:

multi-microphone techniques and placement;
signal routing;
live microphone mixing using a minimum of four channels;
recording levels;
balance;
panning;
stereo image;
equalisation;
cueing and fading.

IA 3 Practical Exercises

The student will be tested on his/her ability to record music performed live using multi-microphone techniques. A minimum of 4 microphones, one microphone per channel, must be used.

The music must be played by 3 different groups. Total recording time will amount to a minimum of 5 minutes.

The student will keep details of the recordings including instrumentation, date, location and acoustical conditions.

Satisfactory performance will be based on the production of technically competent stereo recordings.

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