Programme Specification for the BSc (Hons) Degree in Sound Engineering Systems

1. Qualification	2. Programme Title	3. UCAS Code	4. Programme Type
BSc	Sound Engineering Systems	H343	Modular BSc Full-Time and Part-Time

5. Main Purposes and Distinctive Features of the Programme

Main Purposes

i. To provide students with a broad-based education in the design, development and application of musical and sound design engineering.

ii. To equip students with the skills and knowledge necessary to pursue a successful career in the music, video, computer games or related media industries.

iii. To develop in students an ability to design, produce and market musical and sampled materials.

iv. To provide students with an understanding of the electrical and electronic systems central to sound and audio engineering and to develop the cognitive and practical skills required for the industry.

v. To promote in students a capability to adapt to a rapidly changing dynamic working environment typical of that found in the creative industries.

Distinctive Features

i. Vendor specific and accredited qualifications encompassed in the teaching and learning of studio design and musical production.

ii. Extensive practical activities using state-of-the-art, purpose-built, recording studios, booths and live performance equipment.

iii. Personalised learning programmes.

iv. Business and management issues specific to the music and related industries.

v. The use of software packages for the analysis and design of electrical and electronic systems.

vi. The choice of completing either an individual or group final year project. The group project may be with student(s) from other pathways such as video or computer games.

6a. What a graduate of the Foundation Degree should know and be able to do on completion of the programme.
Graduates will have demonstrated knowledge and skills in the following:

Knowledge and understanding in the context of the subject(s)

K1 Contextualised historical understanding and evaluation.
K2 Current computer-based production techniques using a range of software and hardware options.
K3 Familiarisation of types and applications of sound processing and MIDI software.
K4 Musical and compositional evaluation and implementation.
K5 Marketing and promotional techniques.
K6 Know the terminology of sub-system hardware and components.
K7 Appreciate the operating principles of various sound engineering systems.

Cognitive skills in the context of the subject(s)

C1 Assist in the evaluation of a given set of creative requirements within a set application.
C2 Interpret a specification.
C3 Execute an implementation plan for a sound engineering project.
C4 Analyse appropriate approaches for a creative activity.
C5 Analyse and evaluate the characteristics of the range of equipment and setup.
C6 Identify and solve technical problems associated with design and implementation of studio design and sound production.
C7 Relate the knowledge and skills obtained during the placement to new subject areas and disciplines.
C8 Can analyse circuits, signals and electronic systems.
C9 Can design electronic and other sound engineering systems.

Subject-specific practical/professional skills

S1 Demonstrate knowledge and understanding of the physical and engineering basis of synthesis and sampling methods.
S2 Demonstrate practical abilities with synthesizers, MIDI protocols and sampling techniques.
S3 Demonstrate procedures and techniques for mixing and post-production.
S4 Demonstrate competence in the utilisation of sound processing software appropriate to a range of multimedia applications.
S5 Appreciate the needs and aspirations of management, colleagues, the work force, members of the public, customers and representatives of other companies.
S6 Utilise techniques and technologies acquired on the programme in an industrial or commercial environment.
S7 Acquire new knowledge and skills relevant to the subject area of the programme recognising the relevance of knowledge and skills acquired during the programme.
S8 Can engineer a sound system.
S9 Can analyse new sound engineering equipment and systems in terms of functionality and performance.

Other skills (e.g. key/transferable) developed in subject or other contexts

O1 Use a range of computing and IT facilities.
O2 Communicate effectively orally and in writing.
O3 Manage time and resources effectively.
O4 Engage in continual professional development.
O5 Carry out effective and targeted work placement.
O6 Manage company business.
O7 Manage company intellectual property.

6b. Module Mapping

LEARNING OUTCOME	SED1000	SED1002	SED1003	SED1004	SED1005	SED1006	SED1007	SED2000	SED2001	SED2003	SED2004	SED2005	SED2006	SED2007	SED2008	SED2009	SFX2001	SFX2008	GAD2002	LCT2614	LCT3001	SED3000	SED3001	SED3002	SED3003	SED3005	SED3008	MWD3003
K1	X	X				X		X	X				X	X	X	X	X	X	X	X	X	X					X	X
K2					X		X					X	X				X	X	X	X	X	X	X	X	X	X		
K3		X	X		X	X						X									X	X						
K4	X	X	X			X							X	X		X					X	X		X	X			
K5								X						X		X				X				X	X			X
K6									X						X						X	X	X			X		
K7															X						X	X	X			X		
S1		X	X						X			X			X								X				X	
S2		X	X	X	X						X	X	X											X	X	X		
S3				X		X				X	X	X					X	X	X					X	X			
S4	X		X	X		X		X		X	X	X	X		X		X	X	X		X	X		X	X			
S5					X		X			X		X		X		X				X						X		X
S6				X					X		X	X	X							X			X			X		X
S7	X						X		X				X	X		X				X	X	X	X			X		X
S8																					X	X	X			X		
S9															X								X				X	
C1	X		X		X							X		X		X	X	X	X	X				X	X	X		X
C2				X	X				X		X	X	X							X	X	X	X	X	X		X	X
C3				X				X			X	X			X		X	X	X		X	X	X	X	X			
C4	X		X					X		X			X	X		X	X	X	X		X	X		X	X			
C5				X		X		X	X	X	X	X		X	X	X					X	X	X			X	X	
C6		X				X	X			X		X	X								X	X						
C7									X			X								X	X	X						
C8									X						X						X	X	X				X	
C9									X												X	X	X				X	
O1	X	X	X	X	X			X		X	X	X	X		X		X	X	X	X	X	X	X	X	X			
O2	X				X	X	X	X				X		X		X	X	X	X	X	X	X	X	X	X	X		
O3	X	X			X	X				X			X	X		X				X	X	X				X		
O4		X	X			X						X								X			X			X		
O5																												
O6																												X
O7																												X

7. Qualities, Skills & Capabilities Profile

The educational and training goals of the Programme seek to develop and demonstrate the following qualities, skills, capabilities and values in its graduates.

A Cognitive	B Practical	C Personal & Social	D Other
Design and synthesis;	Computing hardware, software and sampler configuration;	Self-motivation;	Technical report writing;
Applied problem	Sound engineering	Organisation and time	Presentation;

solving;	application and design implementation;	management;	
Flexibility of thought;	Artistic evaluation and implementation;	Group and team skills.	Investigation;
Numerical analysis and synthesis.	Project planning and management.	Critical self-analysis.	Information gathering.

8. Duration and Structure of Programme/Modes of Study/Credit Volume of Study Units

BSc (Hons) Degree
3 years full-time or up to 5 years part-time, structured as 2 semesters per year. To obtain the BSc Degree students must successfully complete 360 credits of study. These are distributed as:
120 credits at level HE4, including 20 credits of Core Skills;
120 credits at level HE5, including the 30-credit Work-Based Learning module;
120 credits at level HE6, including Project and Business modules.

Certificate of Higher Education
This is an intermediate award available to students who do not proceed to the next level. The student must have obtained 120 credits.

Diploma of Higher Education
This is an intermediate award available to students who do not proceed to the BSc award. The student must have obtained 240 credits, 120 of which must be at level HE5.

	Optional Modules	Core Modules
Level HE4		• Professional Development for the Creative Industries • Sound in Context • The Science of Sound and The Recording Chain • Studio Techniques • Introduction to Synthesis and MIDI • Electronic Music: Theory and Practice • Digital Sound Production
Level HE5	Choice of modules from:- • Advanced Studio Techniques • Radio Active • TV Presenting in the Digital Age • Video Effects Production • Special Effects Specialisation • Games Narrative and Design • Contemporary Studies • Project Skills	• Electronic Composition • Post-production Techniques • Studio Design • Electrical and Electronic Principles • Signal Analysis
Level HE6	Choice of 1 module from:- • Live Sound and PA Design • Post-production for Video • Post-production Techniques for Music	• Audio Electronic Systems • Business Issues of Digital Media • DSP for Audio Systems • Project

9. Learning, Teaching and Assessment Strategy

Learning and Teaching Methods

A mixture of learning and teaching methods are used, including lectures, demonstrations, practical laboratory sessions, critique sessions (peer and assessed) and reflective learning through journals and logs for various activities. Group work will be an important aspect of the course, with appropriate peer-assessment to ensure that credit is correctly awarded. Directed study will be a central aspect of the Sound Engineering and Design modules.

Assessment Methods

Assessment tasks are linked to the learning outcomes of each module and are normally completed by the end of each module. Types of assessment include:
essays, assignments, projects, case-study analyses, in-class tests (practical, written or on-line), demonstrations and interviews.

Assessment Classification System

The pass mark for individual modules is 40%. Some tutors prefer to give letter grades rather than percentage marks for elements of assessment within modules. (See section 8.1 of the Programme Handbook for guidelines.)

Honours Degree Classification Bands

Final degree classification is based on aggregated performance in HE5 and HE6 modules. The weighting of the contributions from the two levels follows the University's Modular Scheme.

First Class	70% and above
Upper Second Class	60%-69%
Lower Second Class	50%-59%
Third Class	40%-49%
Borderline/Consideration for an unclassified degree	30%-39%.

10. Admissions Information

Date Programme First Offered: September 2007.

Date of Programme Revision: May 2007.

Admissions Criteria for entry onto the BSc in Sound Engineering Systems
In addition to 5 GCSEs at grade C or higher (including Mathematics and English), applicants should have the following in Physics, Mathematics, an information technology, a music technology, or an engineering science subject:

- General certificate of education (GCE), to include at least two of these subjects at A2 and overall a total of 240 UCAS points.
- Advanced Vocational Certificate of Education (AVCE) double award totalling 240 UCAS points.
- BTEC Diploma totalling 240 UCAS points.
- Scottish Advanced Higher qualifications totalling 240 UCAS points.
- Irish Higher Leaving Certificate totalling 240 UCAS points.
- International Baccalaureate Diploma.

Because of the high skills content of the course applicants may be invited for a short, informal interview to ascertain aptitude, enterprise, initiative, creativity and independence of thought.

Transfer from the BSc Honours Degree to the Foundation Degree
Students who fail to progress on the BSc in Sound Engineering Systems may be permitted to transfer to the FdSc in Sound Engineering and Design.

Indicators of Quality and Standards

i. The programme has been validated by a panel with external subject specialists.
ii. An External Examiner in a similar field from another University moderates assignments and examinations.
iii. The QAA benchmark statements for degrees in Computing, Engineering and Art & Design have been used to inform the design of the Programme.