University of the West of England
BRISTOL

ACADEMIC SERVICES

PROGRAMME SPECIFICATION

Part 1: Basic Data		
Awarding Institution	UWE	
Teaching Institution	UWE	
Delivery Location	UWE	
Faculty responsible for programme	Environment and Technology	
Department responsible for programme	Computer Science and Creative Technologies	
Modular Scheme Title	Environment and Technology	
Professional Statutory or Regulatory Body Links *Name of PSRB* *Type of approval* **Dates**	None	
Highest Award Title	BSc (Hons) Broadcast Audio and Music Technology	
Default Award Title	n/a	
Fall-back Award Title	BSc (Hons) Creative Technology Studies	
Interim Award Titles	BSc Broadcast Audio and Music Technology Dip HE Broadcast Audio and Music Technology Cert HE Broadcast Audio and Music Technology	
UWE Progression Route	n/a	
Mode(s) of Delivery	Full time and Sandwich	
Codes	UCAS: ISIS2:	UCAS: ISIS2:
Relevant QAA Subject Benchmark Statements	Engineering and Music	
CAP Approval Date	Feb 2016 v1.2	
Valid From	September 2016	
Valid until Date	2020	
Version	1.2	

Part 2: Educational Aims of the Programme
The programme in Broadcast Audio and Music Technology has the following general aims:

Part 2: Educational Aims of the Programme

- To produce graduates prepared for careers as individuals or within organisations in which technology is applied to the creation or distribution of music and sound within the creative industries.
- To provide students with an industry-focused learning experience, which will allow them to develop their musical and production skills in a professional context, and which addresses their academic, professional, social and cultural development. Academic staff will explicitly encourage and support students seeking industry placements in collaboration with the Employability and Enterprise Service

The programme in Broadcast Audio and Music Technology has the following specific aims:

- To award an honours degree in Broadcast Audio and Music Technology and produce graduates who have the ability to make a contribution to companies engaged in the use, design and production of music or audio systems, including radio, television, film, and other arts.
- To educate students in the use and application of technology in creative and performance arts – specifically audio and sound engineering.
- To enable graduates to plan, design and engineer outside broadcast events to a brief.

In addition to the general and specific aims stated above, the option modules have been selected to allow students to tailor their course to suit their specific interests and chosen career path.

Programme requirements for the purposes of the Higher Education Achievement Record (HEAR)

This course enables students to develop broadcast audio practice in a broad based programme centred around professional scenarios and activities. It inculcates fundamental skills, techniques and principals at level 1, before students practice working to more open briefs at levels 2 and 3. Students at all levels are taught and mentored by professional practitioners and our industry partners. Professional practice sits at the core of this degree programme.

Part 3: Learning Outcomes of the Programme

Learning Outcomes:	Module No: UFCFF4-30-1	Module No: UFCFH4-30-1	Module No: UFCFC4-30-1	Module No: UFCFGF-30-1	Module No: UFCFE4-30-2	Module No: UFCFA4-30-2	Module No: UFCFG4-30-2	Module No: UFCFHF-30-2	Module No: UFCF96-45-3	Module No: UFCFJF-15-3	Module No: UFCFD4-15-3	Module No: UFCFN5-15-3	Module No: UFCFE6-15-3	Module No: UFCFA6-15-3	Module No: UFCF94-15-3	Module No: UFCFE5-15-3	Module No: UFCFV5-15-3	Module No: UFCFL6-15-3
A) Knowledge and understanding of:																		
Describe engineering processes and applications with particular reference to broadcasting audio techniques and systems using real and abstract quantities.		×	×	×	×		×	×		×	×	×			×	×	×	
Explain the application of computing and other digital technologies to a range of broadcast audio-related and music-related practices.	×	×	×	×	×	×	×							×	×	×		×
Identify symbols, and specialist terminology used in professional broadcast practice.		×	×	×			×	×		×	×	×					×	
Recognise musical instruments both visually and aurally and have strategies for microphone placement and straight to stereo mixing.			×				×					×					×	
Identify applications of audio technologies in other domains including moving image and multimedia contexts.		×		×		×	×	×		×	×			×				×
Explain a broad range of technologies and techniques employed in sound broadcasting and communications.		×	×	×		×	×	×		×	×							
(B) Intellectual Skills																		
Apply logical thinking and the use of symbolic languages to evaluate the relationships between real and abstract quantities in the context of problems that arise in engineering.	×				×							×			×	×		
Develop problem-solving strategies in musical and technical contexts.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Interpret acoustic and electrical theory in the context of the recording studio, performance events and other relevant scenarios.			×				×					×					×	
Evaluate the application of business, marketing and other professional practice to a range of products and vocations including the creative industries, product development and software engineering.	×	×	×	×	×	×	×	×	×	×	×		×	×	×	×	×	×
(C) Subject/Professional/Practical Skills																		
Manage the use of computing and recording studio technologies in the creation of music and audio recordings and other products.		×	×	×	×	×	×	×			×			×	×	×		×
Analyse sound and music both aurally and through technical processes using a range of representations.		×			×	×	×				×	×					×	×
Evaluate requirements and implement broadcast systems for the recording and distribution of high quality audio via range of communication channels				×				×		×								
(D) Transferable skills and other attributes																		
Communication skills: to communicate orally or in writing.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Self-management skills: to manage one's own time; to meet deadlines; to work with others.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×

Part 3: Learning Outcomes of the Programme

IT skills in context: to use software tools in the context of application development.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Logical reasoning and problem-solving skills: To undertake analysis and interpretation of information in the context of the computing, technology and music disciplines.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Problem formulation: To express problems in appropriate notations.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Progression to independent learning: To gain experience of, and to develop skills in, learning independently of structured class work. For example, to develop the ability to use on-line facilities to further self-study.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×
Comprehension of professional literature: to read and to use literature sources appropriate to the discipline to support learning activities.	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×	×

Part 4: Student Learning and Student Support

Teaching, learning and assessment strategies to enable learning outcomes to be achieved and demonstrated

At UWE, Bristol there is a policy for a minimum average requirement of 12 hours per week contact time over the course of the full undergraduate programme. This contact time encompasses a range of face-to-face activities as described below. In addition a range of other learning activities will be embedded within the programme which, together with the contact time, will enable learning outcomes to be achieved and demonstrated.

General types of learning activities may be categorised as follows:

Scheduled learning includes lectures, seminars, tutorials, project supervision, demonstration, practical classes; external visits. Scheduled sessions may vary slightly depending on the module choices made.

Independent learning includes hours engaged with essential reading, case study preparation, assignment preparation and completion.

Placement learning: may include a practice placement. Partnering with BBC R&M and the links with other companies will promote opportunities in broadcast domains including audio and other roles. Students will be encouraged to explore all the opportunities for placements, work experience and internships, supported by staff and professional mentors. Staff and mentors assist and prepare all of the students for the workplace as a part of this course, irrespective of them gaining a placement.

On the Broadcast Audio and Music Technology programme teaching is a mix of scheduled, independent and placement learning.

Throughout, the learner is encouraged to undertake independent reading both to supplement and consolidate what is being taught and learned and to broaden their individual knowledge and understanding of the subject.

Independent use of the recording studio and audio broadcast equipment is encouraged throughout the degree and is a requirement for UFCFG4-30-2 Audio Recording. This independence is developed first in UFCFC4-30-1 Audio Engineering where fundamental knowledge and understanding is gained through specific guided tasks.

Computer-based tasks are tackled in a similar manner whereby practical sessions in the earlier years of the degree provided specific assistance with clearly defined tasks. Later on in the degree this transitions to encourage leaners to seek out solutions using a variety of sources.

Level 3 options are designed to promote awareness of the wide range of professional and employment opportunities for all music technology graduates. The partnership with BBC R&M Operations and other individual professionals (Hugh Robjohns) and companies (Red Six Mix, Real World Post Production) will

Part 4: Student Learning and Student Support

foster close links to the professional broadcast industry and help students develop their quality threshold and gain an understanding of how to deliver professional audio.

Intellectual skills are developed through tutorials and practical sessions that stimulate students' critical, analytical and problem-solving abilities. Computer programming skills are developed to support a means of exercising students' problem-solving skills in individual and group-based activities. During music studio and broadcast exercise sessions the students have the opportunity to rehearse their problem-solving and analytical skills by appraising a range of possible solutions to modern recording and broadcasting problems and determining the most appropriate technique for the creation of professional audio. Business skills are developed and embedded across a range of modules rather than being delivered through dedicated modules. This is due to the wide range of business destinations in which our graduates could find themselves. For example, business concerns in the music industry are developed in music recording modules and the business of broadcast engineering is covering in the BAT specific modules. Advice and guidance is given by current practitioners both freelance and staff.

Communication and team working skills are developed through a variety of methods and strategies including the following:

- Students maintain laboratory log books
- Students participate in electronic conferences, workshops, and groupwork sessions.
- Students participate in discussion tutorials
- Students present research topic findings in tutorials
- Students participate in individual tutorials
- Students respond to feedback both formative and summative

Self-management skills are developed through a variety of methods and strategies including the following:

- Students conduct self-managed practical work
- Students participate in practically-oriented tutorial laboratory sessions
- Students work through practical work-sheets in teams
- Students participate in electronic group-working tutorials

Students arriving on this programme tend already to be fairly fluent in IT skills. This is developed further within the context of the recording studio which makes heavy use of computing software as a core skill for the programme and in the following ways:

- Students conduct self-managed practical work
- Students participate in experimental investigation tutorials
- Students work through practical work-sheets in teams
- Students make use of online teaching materials
- Students use a range of development and audio tools, methods, and packages
- Students are encouraged to practice programming to extend their skills
- Students make sustained use of the internet
- Students submit coursework via online submission systems and receive feedback via similar routes
- Students undertake computer-based exams

Logical reasoning skills are developed through a variety of methods and strategies including the following:

- Case-Studies are used to explore design issues with students
- Students practice design and programming
- Students sketch designs of larger systems
- Students plan and execute recording sessions and deal with unexpected problems that arise during time-critical activities

Problem formulation skills are developed through a variety of methods and strategies including the following:

- Students practice design and programming

Part 4: Student Learning and Student Support

- Students develop recording/broadcasting session plans
- Students produce stage plans for live events

Progression to independent learning is developed through a variety of methods and strategies including the following:

- Students are encouraged to practice all practical activities within the programme to extend their skills
- Students are encouraged to research relevant topics
- Students are encouraged to use the library, the internet and other online facilities to discover information and broaden knowledge
- Students are encouraged to articulate and reflect upon their own ideas and experiences
- Students negotiate the content and structure of their individual projects with tutors

Comprehension of professional literature is developed through a variety of methods and strategies including the following:

- Students are encouraged to access online material
- Material is recommended to the students in module syllabi and by tutors

Students are required to research and refer to appropriate literature in assignments and the individual project.

Description of Distinctive Features and Support

Practitioner Lead Content much of the content and delivery of the programme specific modules will be devised in conjunction with by our partners BBC R&M Operations. And delivered by current practitioners. The content is designed to nurture craft talent tailored to the recruitment needs of the industry. The course fosters proactive, creative individuals who have a solid technical understanding of broadcast audio and can thrive within a team

Class-based Activities Classes use a range of activities. The particular mode of delivery of a module is determined by its Module Leader, and typically involves a combination of one or more lectures, practical sessions, group activities and group project work. Modules on the programme that require laboratory classes are commonly delivered by means of a combination of lecture and practicals or tutorials.

Academic Support Academic advice and support is the responsibility of the staff delivering the module in question. Staff can be contacted outside of normal timetabled hours, either by appointment or during published "surgery" hours, in order to offer advice and guidance on matters relating to the material being taught and on its assessment.

On-line Academic Support Extensive on-line support for this programme is provided through the University portal myUWE. This provides access to the University's e resources, which allows students to read academic journals and study-skills material. Of particular interest to students of this programme is access to Oxford Music Online, RILM, the British Sound Library, Organised Sound, Leonardo Music Journal (MIT), Tempo, twentieth-century Music, Computer Music Journal (MIT), ACM, Society of Audio Engineers Digital library, IEEE and British Standards Online databases. The portal also gives entry to UWE's Virtual Learning Environment (Blackboard) which is used by academics to make available general information about the module delivery, handbooks, lecture notes and other materials. In addition, the portal publishes individual student timetables, marks and other aspects of the operation of the programme and University life.

Pastoral Support Pastoral care is provided through the University-wide Student Advisers, a team of staff who provide comprehensive, full-time student support service on a drop-in basis or by appointment. Advisers are trained to provide advice on matters commonly of concern, including regulatory and other matters; the Adviser will, when necessary, advise the student to seek advice to from other professional services including the University's Student Services Department or from members of academic staff.

Part 4: Student Learning and Student Support

Independent Study
Many modules require students to carry out independent study, such as research for projects and coursework assignments, and a full range of facilities are available to help students with these. The philosophy is accordingly to offer students both guided support and opportunities for independent study. Guided support, mainly in the form of timetabled sessions, takes the form of lectures, tutorials, seminars and practical laboratory sessions. Students are expected to attend all sessions on their timetable, and this is especially important because of the high content of practical work in the programme.

This route to independent learning is developed across the three levels of undergraduate study. Initially, learners are provided with specific texts and sources to provide support for lectures, tutorials, practical sessions, assignments and exams. This approach is then developed to guide students to select appropriate sources and texts for a particular task. This culminates in UFCF96-45-3 Music Technology Project where learners must first select an appropriate project task. Subsequently, they research the necessary texts and other resources required to undertake the project, and plan a significant portion of time dedicated to this project.

The development of independent study will also be assisted by the nature of the support offered in other individual modules. Typically, module leaders will provide a plan for the module indicating the activities to be carried out and the forms of learning to be undertaken during the delivery of the module, with a view to encouraging students to plan ahead and to take responsibility for managing their time and resources. This responsibility is generally weighted towards the module teaching team in the early part of the course and shift towards the student as they progress to graduation.

Computing Facilities The Faculty offers a specialised computing facility along side the general University provisions. There are multiple computing laboratories of 20 plus seats all running Macintosh based systems required for this program. The specialist laboratories are augmented with software resources and hardware equipment necessary for the delivery of the modules. One of the most popular areas within the Faculty is the Open Access laboratory. This area is never timetabled and gives students the opportunity to access machines at all times during opening hours. This is a mixed environment consisting of Macintosh, PCs and Unix workstations.

Professional Contexts The teaching staff on the programme are drawn from a range of backgrounds to support the varied activities undertaken within the programme. These included those with pure academic backgrounds, research and professional practitioners from audio-related industries. This balance enhances the student experience and employability prospects.

Part 5: Assessment

A: Approved to University Regulations and Procedures

Part 5: Assessment

Assessment Strategy

Assessment strategy to enable the learning outcomes to be achieved and demonstrated:

The knowledge and understanding outcomes are assessed in core modules through a variety of methods. Where appropriate examinations are used, principally to test knowledge of theoretical concepts. Coursework is used extensively and offers the opportunity for students to demonstrate their understanding in a number of ways including the writing up of laboratory investigations and recording projects and more general essay-type activities.

Intellectual skills are assessed mainly through coursework and examination throughout the award with particular skills focused into module themes spanning the three levels of undergraduate study. The project module, UFCF96-45-3 Music Technology Project, with its assessment based on a substantial report and significant focused practical activity, further develops intellectual skills particularly relating to problem-solving strategies.

The possession of subject specific skills is demonstrated by the development of practical studio and laboratory work, coursework, presentations and examinations. The practical nature of the skills to be acquired means that some are specifically addressed by particular modules.

Communication skills are assessed mainly by examination, but also by in-class tests, essays, presentations and poster presentations. Other transferable skills are assessed through a number of similar instruments including the following:

- Individual and group projects
- Practical assignments
- Portfolio of exercises

In addition, self-management skills are assessed by both peers and tutors through Academic Personal Tutor sessions, and generally throughout the course.

Part 6: Programme Structure

This structure diagram demonstrates the student journey from Entry through to Graduation for a typical **full time student**, including: level and credit requirements; interim award requirements; module diet, including compulsory and optional modules

ENTRY

	Compulsory Modules	Optional Modules	Interim Awards
Year 1	UFCFF4-30-1 Introductory Audio Programming UFCFH4-30-1 Audio Technology UFCFC4-30-1 Audio Engineering UFCFGF-30-1 Broadcast Technologies	None	Cert HE Broadcast Audio and Music Technology (120 Credits) Other requirements: 120 credits must include UFCFGF-30-1 for the Broadcast Audio and Music Technology title
	Compulsory Modules	Optional Modules	Interim Awards
Year 2	UFCFE4-30-2 Audio Process Design and Implementation UFCFA4-30-2 Applied Audio Systems UFCFG4-30-2 Audio Recording UFCFHF-30-2 Outside Broadcast	None	Dip HE Broadcast Audio and Music Technology (240 Credits) Other requirements: 240 credits must include Either UFCFGF-30-1 or UFCFHF-30-2 for the Broadcast Audio and Music Technology title otherwise Fallback award title will apply

Year Out: Students on the Sandwich route complete a placement year. For students on placement, there is an opportunity to complete a professional practice module and be awarded 15 level 3 credits. The professional experience module is shown in the option list for year 3 but is actually completed during the year out.

	Compulsory Modules	Optional Modules	Interim Awards
Year 3	UFCF96-45-3 Music Technology Project	UFCFN5-15-3 Instrument Recording Investigation	BSc Broadcast Audio and Music Technology (300 Credits) Other requirements: 300 credits must include at least 45 credits from UFCFGF-30-1, UFCFHF-30-2 or UFCFJF-15-3 for the Broadcast Audio and Music Technology title otherwise Fallback award title will apply Highest Award BSc(Hons) Broadcast Audio and Music Technology 360 credits
	UFCFJF-15-3 Broadcast Practice	UFCFE6-15-3 Professional Experience OR UFCFWJ-15-3 International Experience OR UFCFVJ-15-3 Professional Development	
	UFCFD4-15-3 Audio Post Production	UFCFA6-15-3 Audio For Games	
		UFCF94-15-3 Software Development for Audio	
		UFCFE5-15-3 Game Audio Programming	
		UFCFV5-15-3 Live Sound	
		UFCFL6-15-3 Sonic Art	
		UFCFTJ-15-3 Architectural Acoustics	

GRADUATION

Part 7: Entry Requirements

The University's Standard Entry Requirements apply with the following additions:

(a) evidence of achievement in Mathematics at GCSE Grade C or equivalent
(b) an A level or equivalent in a scientific or technological subject.

Tariff points as appropriate for the year of entry

Part 8: Reference Points and Benchmarks

QAA subject benchmark statements

The Broadcast Audio and Music Technology programme falls within the cognate area of the QAA Engineering benchmark. The Engineering Benchmark Statement contains statements of the standards expected of graduates at threshold levels. Graduates of this programme will be able to meet the required standards to meet the benchmark. In addition, some elements of both the Computing and the Music benchmark statements have been influential such as Programming fundamentals (Appendix B Computing) and Music technology and acoustics (Sections 3.14 and 3.15 Music).

University strategies and policies

The development of this programme reflects well institutional policies and is fully consistent with the University's commitment to 'make a positive difference to our students, business and society'. The programme has been developed with reference to Faculty and University policies on teaching, learning and assessment including a strong emphasis on formative work, skills development, innovative approaches to teaching and learning, and live project briefs where possible.

This programme supports the mission of the University's 2020 Strategy in the following ways, in particular:

- The programme has been developed to provide a practice-oriented learning experience through relevant and real-world scenarios.
- The programme will employ dedicated specialist facilities for broadcast audio both on and off campus in addition to sharing the existing high quality audio technology facilities within the faculty.
- The application and development of digital technologies are embedded in the programme both through practice and other learning experiences.
- Real-world opportunities are promoted on a small scale through individual, isolated learning experiences through to group projects, and placement settings for sandwich students. The programme employs peer-assisted-learning as a key feature for year 1 and 2 students.
- Full-time, part-time and associate lecturing staff are drawn from a range of areas related to broadcast technologies providing professional contexts, up-to-date skills and networking opportunities.
- The programme has developed, and will continue to develop, regional and national partners to support the economic growth and sustainability of the broadcast audio sector.