



**Bournemouth
University**

BSc (Hons) Music & Audio Technology

The School of Design, Engineering & Computing

The experience on this degree is enhanced by:

- Emphasis on practical hands-on activities which bring the theoretical content to life;
- Coverage of a wide range of leading music and audio hardware and software technologies;
- Supplementary sessions by experts in the music and audio industry providing theoretical and practical experience on leading aspects of the technology.

Duration:

4 years including a 40 week placement

UCAS:

J932

Entry Requirements:

For 2012 entry: 300 points typically from 3 A-levels or equivalent. A minimum of DMM from a BTEC 18-unit Diploma.

We look at individual applications and make an offer based on your academic achievements, personal statement and relevant selection criteria. Offers may be subject and grade specific.

Preferred subjects:

Computing, IT, Maths, Physics, Music Technology, Science/Technology

Recommended GCSEs:

4 at grade C minimum including Maths (preferred grade B) and English

International Baccalaureate:

31 points (including 5 points from each of the 3 Higher Level subjects).

If English is not your first language:

IELTS (Academic) 6.0 or equivalent

Contact askBU Enquiries:

Tel: 08456 501501 (BU does not profit from this service)

Tel: +44 (0) 1202 961916 (UK and International/EU alternative number)

Email: askBUenquiries@bournemouth.ac.uk

For more course information:

www.bournemouth.ac.uk/courses/BSMATS

Overview

This course focuses on the development of hardware and software technologies to be applied to creative ends. The course provides an opportunity to develop and apply electronic and computer technologies within the broad context of music, audio and recording. In this course you will have access to state of the art facilities including three dedicated computer labs and six recording studios.

If you take this course you will gain a wide knowledge of the technologies that are used in the music technology industry in general. Your final year project will allow you to take the knowledge gained in the first two years of the course to develop your own specific product which can be a piece of software, hardware development or a content based project which uses technologies that you have developed during the course.

The School of Design, Engineering and Computing has a well established advanced technology base with expertise in electronics, multimedia, computing, psychology and product design. This unique mix of academic disciplines enables the University to offer a truly comprehensive music technology course, that links the technological and creative perspectives with factors, such as, the human perception of sound, to integrate audio/music systems for the design of new audio/music solutions.

Course content:

Year 1 - Level C

Creative Technology Fundamentals

The unit has two principal aims, namely to provide the generic scientific knowledge and skills required by graduates working in the creative technology industries and secondly to provide understanding and practical skill in interfacing and configuring creative technology hardware.

Software Programming

You will develop an understanding of the fundamentals of programming principles and practices involved in the planning, designing and implementing of computer programs for audio and media applications.

Change and Opportunity

You will become aware of the particular issues affecting market and client led design in the development of multimedia products and services. You will also develop professionally and interpersonally in preparation for the placement search and for the challenges of working in a rapidly changing technical industry.

Synthesis and Effects

In order to be an effective sound designer, it is vital to understand the fundamental building blocks of sound and how these can be combined to create complex harmonic relationships. This unit aims to provide students' with theoretical understanding sound analysis and practical skills in sound creation.

You will also begin building a portfolio of work that will be expanded and contributed to through the entire degree programme.

Studio Techniques 1 (Music and Audio)

You will learn to demonstrate knowledge of the underlying concepts and principles of studio techniques in relation to the creation, recording, and post production of audio media.

Media Device Architecture and Networks

You will learn the basic mechanisms and operation of computer architectures as applied to audio and video media devices. In addition you will learn the fundamentals of networking techniques used in integration of audio and video equipment and delivery of multimedia content across networks.

Year 2 - Level I

Analysis, Design and Application for Themes

The aim of this unit is to give you the knowledge and skills required to design and explore solutions appropriate to Music & Audio Technology. You should also understand how their theme specific approaches fit into the wider context of the Creative Technologies industry as a whole.

MIDI and Sequencing

You will extend your theoretical understanding and practical skills in generating sound and audio using a sequencer and MIDI instruments. You will gain understanding of how MIDI is used in a variety of contexts and its relationship to sequencing musical compositions.

Programming for Music and Audio

You will develop skills in programming for audio and music applications with emphasis on the underlying technical theory and software. You will specify, develop, test and deploy software that has been created for music and audio applications. You will learn to produce quality applications that run on today's modern real-world music technology systems.

Signal Processing for Music and Audio

You will learn to critically analyse signal processing techniques with emphasis on the analysis, modification, synthesis and control of audio signals and acquire the ability to critically evaluate the appropriateness of different solutions to specific problems within this field of study.

Studio Techniques 2 (Music & Audio)

You will be able to critically analyse various studio practices in relation to the creation, recording and post production of audio and video with emphasis on the current techniques employed by the industry.

Innovation and Developing Solutions

You will develop the ability to analyse business situations, identifying potential opportunities for innovative solutions, and you will work in teams on simulated business projects to provide innovative technical solutions to clients.

Year 3 – Level P

Industrial Placement (minimum 40 weeks)

Year 4 - Level H

Creative Music and Audio Technology

You will gain knowledge of the key developments both by the industry and research in relation to advanced music creation and audio technology.

Audio Recording Technology

You will learn to manipulate sound using commonly available systems of control including MIDI sequencers, samplers, software sound manipulation tools and hardware based devices. You will also develop the ability to use technologies and systems that communicate between different pieces of software or hardware.

Management Strategies & Entrepreneurship

You will develop appropriate knowledge, skills and attributes together with sensitivity to different cultures and leadership styles to meet the challenges of the technical development environment.

Individual Project

The individual project will give you the opportunity to apply the knowledge and skills you have acquired on the course, in a scientific manner to enable the development of multimedia, network and business systems. You will develop strategies allowing you to understand and practice problem solving with regards to research, synthesis, realization and evaluation.

You will present project requirements, analysis and design solutions using oral, written and modelling techniques to a professional standard. This challenge will develop and demonstrate your ability to apply and synthesize the knowledge and skills established throughout the course.

The Nature of the Course

During Year 1 the aim is to build a uniform technical foundation which will adequately support subsequent levels of the course. The core subject of studio techniques covers music creation and studio practice.

The remaining units provide the necessary additional theoretical and practical skills including: The physical principles of sound; audio and video signals; computer hardware, programming and networking and the design and integration of creative music and audio technologies at the systems level.

At the end of the first year you will understand the basic theory and practise of music creation and recording and will understand the operation of a wide range of hardware and software technologies used in a modern recording studio.

By the end of Year 2 you will be able to apply advanced techniques in the recording studio and have a detailed knowledge of the audio signal processing techniques required to enhance and apply special effects to music. The use of sound in the context of multimedia will also be covered. The skills learnt in Year 2 will then be applied in the context of a group project.

The optional third year placement provides at least 40 weeks experience in a relevant commercial or industrial environment.

In the Final Year you will evaluate key developments in computer music research and audio technology. This will be used in conjunction with prior theory and skills to allow you to implement new music hardware and software technologies within the context of a major individual project.

The units in the final year focus on the issues relating to the design of music and audio technologies. This includes hardware and software systems for recording studios and sound for multimedia and games.

Course provision

Generally, each unit is delivered through lectures, laboratory based workshops or seminars. In addition, students are expected to undertake self-directed private study for each unit. Assessment is through a mixture of coursework and examinations.

The emphasis is on practical application in the studio environment. There is a project element in all three years that challenges the students to produce working solutions to interesting design problems.

Career Development

There is a continuing high level of demand for personnel with knowledge of creative music and audio systems.

A successful career in this field normally requires a combination of significant practical experience supported by theoretical concepts. Career opportunities are excellent for graduates from this course the most important reasons being:

- The multi-billion pound UK music industry
- The importance of sound and music throughout the entertainment industry and its rapid expansion via emergent multimedia technologies
- Significant feedback from industry indicating the need for graduates with a detailed understanding of the technologies that support music and audio creation, recording and post-production.

Typical Graduate Destinations:

- Studio engineers
- Research and Design (software and hardware)
- Music and audio consultants
- Multimedia and games developers
- Any sector involving music and audio

For BSc (Hons) Music & Audio Technology we are looking for applicants who:

- have a strong interest in Music Technology
- are looking to develop a career in the Music Technology Industry
- are looking to use Music Technology more creatively

Information on the type of applicant sought:

Competent technologist with knowledge of creative technologies and the ability to apply tools and techniques to support the creation of cutting edge tools (software or hardware) and/or content with a particular emphasis on the use of music and audio.

Interviews

Applicants for this course are required to attend an informal interview.

Entry Requirements

For 2012 entry: 300 points.

We look at individual applications and make an offer based on your academic achievements, personal statement and relevant selection criteria. Offers may be subject and grade specific.

GCSEs

This course requires a minimum of 4 GCSEs or equivalent at grades A* to C, including English and Maths.

Numeracy and literacy

In order for you to contribute fully to your course and enjoy your learning experience with us, you'll need to have the right skills to study with us. For that reason, we need to be sure that you can express yourself in written English, have basic numeracy skills, and have an understanding of the subject area. We usually use Level 2 of the National Qualifications Framework as a demonstration of these skills. Level 2 includes GCSEs and Key Skills Level 2.

If you are a mature candidate who does not have formal qualifications to this level, we may still be able to consider your application – please contact the askBU enquiry service to find out more.

Advanced/Progression Diplomas

The Advanced diploma is broadly equivalent to three and a half A levels and the progression diploma to two and a half A levels. The diplomas are available in just a few subject areas and only some of these are suitable to gain entry onto this course, please see the individual course entry on our website for further details.

BTEC National Diplomas

This course requires a Distinction, Merit, Merit from the 18 unit diploma.

Access to Higher Education

BU welcomes Access to HE students. This course requires Access to HE in ICT/Science normally with 24 Level 3 credits achieved at Merit, and 12 Level 3 credits achieved at Distinction.

Excluded Subjects

General Studies is not accepted as one of your A or AS levels. The grade achieved for Critical Thinking however, may be taken into account when considering whether or not to accept a candidate who has marginally failed to meet the conditions of their offer.

Other qualifications

If you are studying a qualification that is not listed please contact us it may be that we can still consider it.

International Students

International students are very welcome at BU – we think that a bustling, cosmopolitan mix of students enhances the learning experience for everybody.

To find out more about how your qualifications relate to those in the UK, take a look at the NARIC website www.naric.org.uk. Your application will be processed by our dedicated International Admissions Team that is familiar with a wide range of international qualifications. We look at your entire application to see how you would benefit from the course, and how able you are to complete it successfully.

You will find our country-specific information www.bournemouth.ac.uk/international gives you clear advice about the entry requirements from a particular country. If your country is not listed, then contact our askBU Enquiry Service for further information.

Please note:

The University reserves the right to introduce changes to the information given, including the addition, withdrawal, re-location or restructuring of courses.

Last updated Nov 2011