Music Production
Module Descriptors
September 2017

BA (Hons) in Music Production

Please be advised:

It has not been confirmed which modules will run in Semester 1 and which modules will run in Semester 2

STAGE 1

Module	Critical Listening & Audio Analysis
Course code	BAMPH-CLAA
Credits	5
Allocation of marks	50% listening tests 50% final examination

Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

i. Explain the nature of sound; how sound is produced; how it propagates through a medium; distinguishing the various attributes of sound.

ii. Describe the human auditory system and the functions of each part of the auditory pathway.

iii. Describe and clarify issues related to localisation and spatialisation.

iv. Discuss the psychology of sound perception citing relevant forms and examples.

v. Critically analyse recordings and identify constituent components and effects and defects.

Module Objectives

The objective of the module is to introduce the learner to the principles of psychoacoustics (human auditory system) — and Critical Listening and Audio Analysis (estimating changes in sound frequency, sound level, band limitations and irregularities, distortion, noise, etc.

Module Curriculum

Critical Listening and Audio Analysis

- Estimating frequencies
- Sound level changes
- Frequency band limitations
- Frequency response irregularities

- Sound quality
- Detecting distortion
- Signal versus noise
- Reverberation colourations
- Voice colourations
- Listening with discernment

Psychoacoustics and auditory perception

- Simple harmonic motion, sine waves, Fourier analysis
- Signal temporal characteristics
- Resonance coupling and damping
- Harmonics and formants
- Energy power intensity, SPL
- Decibels and inverse square law and logarithmic scales
- Perception of loudness (Weber)...loudness and frequency (Fletcher)
- Pitch-range and discrimination, and intensity, duration and masking
- Complex tones and pitch perception
- Definition of timbre
- Anatomy and function of the ear and auditory nerve

Module	History of Music Production
Course code	BAMPH-HMP
Credits	5
Allocation of marks	50% assignment 20% presentation 30% aural test

Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

i.   Outline the development of western music recording and production.

ii.   Recognise the characteristics and limitations of production techniques.

iii. Analyse the changing role of the producer.

iv.   Critique the influence and major contributions of key practitioners.

v.   Evaluate the contribution of key technical developments.

Module Objectives

The objective of the module is to give the learners the ability to recognise the stylistic traits of music production in a historical context and to develop their critical and contextual language in relation to music production.

Module Curriculum

The history of recorded music

-   Key developments in media: vinyl, tape, digitisation
-   Evolution of recording equipment and hardware
-   Computers in music

Evolution of the role of the producer

-   The early electronic composers
-   The label era
-   Record company A&R as producer
-   The emergence of the independent producer and recording studios
-   The emergence of production companies

Iconic producers and their techniques

-   Key practitioners and techniques – Meek, Phillips, Martin, Spector
-   Analysis of their technical production methods
-   Influences on style and genre

Modern day producers and styles

-    Key practitioners and techniques – Eno, Horn, Dre, Flood

- Producer as artist
- Producer as engineer

The future of music production
- Discussions and debates concerning the future role of the producer
- Future skills and emerging technologies

Module	The Music Industry
Course code	BAMPH-TMI
Credits	5
Allocation of marks	30% assignment 1 30% assignment 2 40% final examination

Intended Module Learning Outcomes

On successful completion of this module, the learner will be able to:

i.   Identify and describe the structures of the music industry in Ireland and internationally, particularly the impact of the major recording companies.

ii. Present an informed argument relating to legal aspects such as intellectual property, copyrights, control of musical content, royalties.

iii. Demonstrate a detailed knowledge of the performance sector and touring, including promotion and management.

iv. Recognise and outline industry jobs and roles, including independent production, labels and self-management.

v.   Use appropriate software to design and build a live promotional web site with a design tailored to the learner's creative output.

vi. Implement and manage online retail of digital audio products.

Module Objectives

The objective of the module is to give learners a broader understanding of the music industry within which to contextualise their own role and contribution. The module presents the many various roles and structures within the industry outlining their contribution and influence, addressing the commercial and regulatory environment. It further seeks to broaden their understanding and appreciation of the wider cultural and social environment within which music is mediated and consumed.

This module includes the necessary web design content to enable completion of Module 8: ePortfolio and Online Promotion

Module Curriculum

Music Industry structures

- The record labels, Ireland and internationally
- Musical genres in the commercial environment
- The importance of distribution
- The changing retail environment
- The hardware makers
- Touring and promotion
- The regulators and Industry associations

The musical product life cycle

- Composition to recording a first album
- Selecting producers
- Signing to a label, common deal structures
- Royalties, publishing, artists rights
- Touring

Managers and promoters

- What do they do and don't do
- Finding the right representatives
- Developing your product image
- Airplay, visibility and publicity

Independent labels and self-publishing

- Setting up your own record label
- Self-management and representation
- Intellectual property and ethics in the music sector
- Tax compliance

Digital technologies and the music industry

- The impact of MP3 technology and file sharing
- Social media and the musical artist.
- Selling music online

- Music catalogues and audio databases

- Search engine optimisation

- Internet structure and payment collection services

Industry Roles

- Occupations and skills in the music industry, from composer to roadie

Web design and management

- Planning and designing a website

- Graphic design for the Web

- User interface design and functionality

- Embedding images, audio and video

- Integration of social networks and blogs

- File transfer protocol and account management

Digital communication

- Digital communication systems

- Use and integration of social networks and blogs

- Guerrilla and viral promotion strategies

- Ethical issues in relation to online communication

Module	Explorations in Music
Course code	BAMPH-EM
Credits	10
Allocation of marks	50% assignment 50% project

Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

i. Describe different anthropological and historical music developments.

ii. Identify stylistic, intellectual, structural and technical aspects of a wide range of musical genres.

iii. Demonstrate an awareness of the inter-connectivity of music genres.

iv. Competently analyse and critique works in various musical genres.

v. Deconstruct and analyse chosen works for imitation purposes.

vi. Formulate musical pastiches of chosen works using applicable strategies and appropriate software.

Module Objectives

This module aims to significantly develop learners' musical understanding by introducing them to genres of music they have never explored before i.e., bringing them out of their 'comfort zone'. This will be achieved primarily by exposing them to a wide range of musical works from various musical genres and periods in history. Further to this the module aims to expand the learner's musical vocabulary and analytical skills. Their module-related assignment will focus on analysing and critiquing chosen works. Their independent project will consist of deconstructing a chosen work into its component parts and subsequently re-creating this work using music software.

Module Curriculum

Lecture based investigations of form and genre:

Art Music

- Classical: Bach to Debussy

- 20th Century Art Music: Debussy to Boulez

- Experimentalism and aleatoric music: John Cage to Peter Maxwell Davis.

- Minimalism: La Monte Young to Arvo Part

- Ambient: Eric Satie to Brian Eno

- Musique concrète and electronica: Pierre Schaeffer to Royksopp

- Blues: Ali Farka Toure to Taj Mahal

- Jazz: Louis Armstrong to Brad Mehldau

- Cartoon and animation music: Carl Stalling to Danny Elfman

Traditional Music

- Sub-Saharan African music traditions

- Middle Eastern and North African music traditions

- Indian music traditions to gamelan and beyond

- Celtic music traditions

Analysis

- Strategies of analysis applicable to any genre

Pastiche

- Strategies and technologies for successful pastiche of any genre

Module	Applications of Psychology in Music
Course code	BAMPH-APM
Credits	5
Allocation of marks	50% assignment 50% final examination

Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

i. Discuss the psychological impact of music on behaviour and mood.
ii. Compile and manipulate music and sound to create appropriate sound tracks for different ambient settings.
iii. Demonstrate a clear knowledge of the cultural function of music, and in particular its role in the development of popular culture over the past five decades.
iv. Examine the development of music, art and technology in society.
v. Select from a wide range of musical styles and genres to design and present backing tracks and sonic logos or mnemonics to accompany industry level advertising or promotional briefs and scenarios which capture brand or other values.

Module Objectives

The objective of this module is to enable the learner to contextualise the social environment in which music functions, focusing on its prominent role in popular and contemporary culture and society. It further aims to give the learner an understanding of the psychological impact of music at an individual and societal level, to enable him or her to contextualise and appraise the practical applications of the programme, and to consider, select, and carefully evaluate the choices they make in their own practical work.

Module Curriculum

Psychology of Music

- Function of the ear; the auditory brain; acoustical properties of pitch and intervals; consonance and dissonance
- Music psychology theorists – from Hevner to Peretz
- The psychological impact of different elements of music - pitch; rhythm; tonality; harmony; texture; timbre
- Musical emotion and the brain
- The impact of background music on behaviour and mood
- Music and marketing - musical meaning in advertising; the impact of music on consumer behaviour

Social Psychology of Music - music shaping the decades

- Music, popular culture, and youth culture
- Music, self, identity, and preference
- Music as politics - class, power, conflict, nationality, cult, ethnicity, culture
- The Music Industry - the commercial product; how it impacts the music we listen to
- Music and everyday life - individuals and groups as consumers of music

Module	Interactive Audio 1
Course code	BAMPH-IA1
Credits	5
Allocation of marks	50% Assignment 1 50% Assignment 2

Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

i. Work as a key member of a music production team in diverse contexts including concert performance, interactive installation and theatre.

ii. Design Max/MSP programs for the real-time processing of audio signal dynamics, spatialisation and sound synthesis in music and theatre contexts.

iii. Specify and operate appropriate sensors and controllers for use in interactive installation contexts.

Module Objectives

This module explains and demonstrates the principles of modular programming software for music performance, interactive installation and theatre presentation. Learners will also acquire familiarity with canonical concepts and strategies in Max/MSP programming and develop confidence and problem-solving skills that enable them to independently bring complex systems from concept to implementation.

Module Curriculum

- Artistic, cultural, and social impact of new performance interfaces

- Introduction to Max/MSP programming

- MIDI implementation in Max/MSP

- Introduction to sound synthesis in Max/MSP

- Introduction to Audio processing in Max/MSP

- Data mapping algorithms

- Introduction to sensor technologies for installations and live performance

- Real-time gestural control in musical performance

- Introduction to Ableton Max for Live

Module	Research Methods
Course code	BAMPH-RM
Credits	5
Allocation of marks	80% proposal 20% presentation

Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

i. Demonstrate a detailed knowledge of the wide variety of information sources available to communication researchers.

ii. Carry out the necessary preliminary investigations to support and underpin a proposal for research by practice and gather authoritative evidence to support findings.

iii. Recognise and apply ethical considerations to their research activities

iv. Understand, apply, interpret and assess different quantitative and qualitative methods of research.

v. Assess the feasibility of a practical research project in terms of time, resources, cost, access to software and other resources.

vi. Competently undertake, complete, and defend a detailed research proposal.

Module Objectives

This module aims to develop learners' research skills, both in relation to their module related assignments and later in the completion of their final dissertation by research or practice. The module provides learners with the opportunity to learn specific research skills such as developing a research idea, investigating prior work in the area, writing a literature review and evaluating previous studies. The module aims to familiarise learners with the main research theories and concepts and enable learners to acquire skills in the research process including selecting and planning an appropriate research project, feasibility, execution, logging and tracking the practical process, data collection and analysis. The ultimate aim of the module is that learners will be able to conduct research effectively and to grasp the impact research can have.

Module Curriculum

- Introduction to Research Methods

    This section of the module will introduce key words in research methods such as 'quantitative', 'qualitative' and 'sample' and explain what research involves. An important part of this introductory unit is a description of common ethical principles and a discussion of how they can be applied to research projects.

- Sourcing Information and Writing a Literature Review

This section looks at how to source information effectively. It also details what a literature review is and how to begin writing one. It also includes information on how to reference work correctly and covers: planning effective searches on the internet, evaluating documents and examining issues such as authenticity and credibility, using search engines effectively and producing a bibliography. Key to this module will be familiarising learners with the college databases available and the valuable information sources accessible to learners.

- Developing a Research Idea

This section will look at different possibilities for developing a research idea for research by practice, whether this involves technical, musical, production or socio-cultural research. The learner will be expected to start considering possible areas for their own research; interrogate the aims, objectives and goals of the research and develop research questions. They will be expected to consider the research deliverables, in terms of feasibility with respect to resources, time constraints, costs, access to technology, and the learner's own level of experience in the field.

- Research Tools

Learners will be introduced to various research tools used in field-work, such as interviewing, focus groups, survey research, logs, or research diaries, each of which will be evaluated for appropriate use in different research settings. This topic will also deal with methods and means of analysis of data.

- Writing a Research Proposal

This topic aims to help learners develop a writing style that is suitable for a research proposal. It outlines the reasons why good research proposals are imperative when undertaking research and describes the essential elements of a proposal. In this topic effective proposals are analysed and common mistakes, which should be avoided, are detailed.

Module	Sound for Performance
Course code	BAMPH-SP
Credits	5
Allocation of marks	60% project 40% documentation

Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

i. Identify and communicate the necessary knowledge needed to operate basic live sound equipment.

ii. Correctly set up a sound system demonstrating knowledge of health and safety procedures.

iii. Work effectively within a group environment demonstrating the organisational skills necessary to specify systems according to venue and performers requirements.

iv. Understand the principles and differences of front of house and monitor mixing.

v. Have the ability to find a fault in a sound system and to resolve it in a timely manner.

Module Objectives

This module will explain the underlying principles of live sound and electro acoustics, while enabling learners to listen critically to signals processed through live sound systems.

Emphasis is on signal flow, acoustics, sound reinforcement setups and installation, including signal processing, microphone selections and placement. Learners will be introduced to the fundamentals of recording live sound and also to interaction systems for live performance.

Module Curriculum

Equipment overview

- Front of house consoles
- Monitor consoles
- Multicores digital/analogue
- Microphones for live applications
- Crossovers, graphic equalizers
- Stage boxes, D.I. boxes
- Electrical supply

Sound system setup, tuning and optimization

- Speaker placement
- Phase
- Filter types
- Feedback control

Introduction to digital and analogy live consoles

- Digital A/D D/A conversion
- Console navigation

- Multi-purpose faders
- Saving and loading presets

Managing the stage

- Stage setup
- Artist Liaison
- Effective time management
- Scheduling and sound checking

Live multi track recording

- Configuring mobile recording systems
- Analogue and digital interconnectivity

Module	Professional Practice
Course code	BAMPH-PP
Credits	5
Allocation of marks	40% assignment 60% examination

Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

i. Set up and manage a small business in accordance with legalities such as tax, business registration and insurance.

ii. Manage personnel in accordance with employee rights and employer responsibilities.

iii. Navigate the legalities of recording rights, arrangement rights, copyright, intellectual property etc.

iv. Develop successful strategies for project pitching and presentation to third parties.

v. Recognise the fiscal value of his professional expertise; cost, price and quote for this accordingly, and present this information to third parties.

vi. Organise promotion of a small business through website design and internet marketing.

Module Objectives

This module aims to provide the learner with the skills necessary to provide a business service to the creative industries. The learner will be equipped with a working knowledge of the ethical and fiscal standards of the professional bodies and the practical understanding of the complex legal implications of intellectual property in the music industry. The module aims to develop the learners' presentation, CV, and job application skills as well as their marketing and selling skills on the internet.

Module Curriculum

Setting up and running a small business:

- Registration
- Taxation and accounting
- Personnel management
- Finances and fiscal obligations
- Overheads and expenditure considerations

Online business systems:

- Models for business websites
- Music catalogues

- Revenue streams

Copyright:
- Intellectual property
- Arrangement rights
- Recording rights
- Performance rights
- Royalties

Project pitching:
- CV preparation
- Media formats
- The NLP language of the "sell"

Presentation skills:
- Presentation structures and platforms
- Portfolio presentation.

Module	Studio Design & Installation
Course code	BAMPH-SDI
Credits	5
Allocation of marks	40% studio design documentation 60% practical measurement log

Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

i. Derive and apply solutions for studio setup and design

ii. Correctly apply knowledge of scientific principles pertaining to music production and acoustics.

iii. Demonstrate a critical understanding of the technologies underpinning acoustic measurement and studio treatments.

iv. Communicate effectively with the audio engineering community and musicians regarding studio design and implementation.

v. Integrate knowledge into multi-disciplinary settings.

Module Objectives

The module aims to provide practical and theoretical knowledge in the main areas of studio design and related industries. The learner will become familiar with various systems and operations using industry software currently used in acoustic analysis.

Module Curriculum

Acoustics theory

- Acoustic principles
- Reflection, absorption, diffusion
- standing waves,
- flutter echo,
- reverberation time,
- sound transmission,
- insulation,
- absorption,
- diffusion,
- the floating floor,
- designing and building acoustic panels and bass traps,
- Helmholtz resonators

Objective measurements and analysis

- frequency response,
- reverberation time (RT),
- early decay time (EDT),
- early-to-late sound index (C80),
- early lateral energy fraction (LF),

- total relative sound level (G) ,
- test microphones,
- audio analysis software

Studio design
- Room acoustics and means of control
- Designing neutral rooms
- Rooms with characteristics acoustics
- Loudspeakers in rooms
- Flattening the room response
- Studio monitoring the principal objectives
- Live end – dead end
- Response disturbances
- Objective measurement subjective evaluation
- The home studio setup

Module	Business of Digital Media
Course code	BAMPH-BDM
Credits	5
Allocation of marks	60% continuous assessment 40% final examination

Intended Module Learning Outcomes

Upon successful completion of this module the learner will be able to:

i. Evaluate the impact of regulatory policy decisions on the development and use of digital and creative media technologies.
ii. Research the business strategies of individual media firms and demonstrate an understanding of the wider markets in which the firm operates
iii. Demonstrate an understanding of the legal and ethical issues pertinent to the digital and creative media industry.
iv. Evaluate the enterprise and funding opportunities within the creative media sector.
v. Evaluate emerging technologies in digital and creative media in relation to their potential for related business opportunities.
vi. Explain and explore the concept of creative industries and how it has developed conceptually, historically and in terms of industry and policy development.

Module Objectives

This module gives learners a comprehensive understanding of the creative and communicative industry of which they will become a part. Key aspects of the media sectors market structure and development will be addressed as will some key regulatory issues.

Other areas covered include marketing, finance, audience theories and entrepreneurship in the media sector.

Module Curriculum

Media market structures

- The concepts of integration, transnational ownership, market trends, the role of technology and other media sector developments

Media market regulation

- The role of the regulators and the emergence of clustering and network strategies.
- Media market regulators, Ireland, Britain and the USA.

Creative and cultural industries

- Creativity and culture are features of human society since prehistory. In this sector we look at the role and power of creative content in media markets. We introduce and the idea of a creative and cultural sector and examine the role of market forces on the creative sector.

Introduction to marketing

- Principles of marketing
- Advertising
- Brands
- SWOT and PESTLE

Revenue generation and funding in media markets

- The economic rationale of how media markets exploring creative industries are funded and how firms plan revenue flows. With the impact of new technologies on media markets this is a key area as old revenue streams are no longer delivering as much income while new opportunities for revenue generation are emerging.
    - What is an entrepreneur?
    - Developing a business plan.
    - Funding issues, from micro business to IPO.
    - Government policy, incubation to innovation.
    - The EU and US contexts.

Knowing your audience

- An introduction to audience theories, the active and inactive audience
- Measuring media market audiences.

Legal issues

Protecting your copyright, respecting others. The idea of intellectual property, trademarks and patents.

Module	Interactive Audio 2
Course code	BAMPH-IA2
Credits	5
Allocation of marks	50% Assignment 1 50% Assignment 2

Intended Module Learning Outcomes

On successful completion of this module the learner will be able to:

iv.   Work as a key member of a music production team in diverse contexts including concert performance, interactive installation and theatre.

v.   Design Max/MSP programs for the real-time processing of audio signal dynamics, spatialisation and sound synthesis in music and theatre contexts.

vi.   Specify and operate appropriate sensors and controllers for use in interactive installation contexts.

Module Objectives

The module curriculum is an advanced continuation of the Stage 2 module, Interactive Audio 1. Learners will futher develop canonical concepts and strategies in Max/MSP programming and develop confidence and problem-solving skills that enable them to independently bring complex systems from concept to implementation.

Module Curriculum

-      Artistic, cultural, and social impact of new performance interfaces

-      Advanced Max/MSP programming

-      MIDI implementation in Max/MSP

-      Sound synthesis in Max/MSP

-      Audio processing in Max/MSP

-      Data mapping algorithms

-      Sensor technologies for installations and live performance

-      Real-time gestural control in musical performance

-      Ableton Max For Live