

## Liverpool John Moores University

Title: Audio Principles and Music Production  
Status: Definitive  
Code: **4045ENG** (117047)  
Version Start Date: 01-08-2016

Owning School/Faculty: Electronics and Electrical Engineering  
Teaching School/Faculty: Electronics and Electrical Engineering

Team	Leader
Tony McKenna	Y
Paul Otterson	

**Academic Level:** FHEQ4  
**Credit Value:** 24  
**Total Delivered Hours:** 74  
**Total Learning Hours:** 240  
**Private Study:** 166

### Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	24
Practical	48

**Grading Basis:** 40 %

### Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Portfolio	Tech		50	
Exam	Exam	Sound theory	50	2

### Aims

*To introduce students to sound theory, technical underpinning, and the practical issues arising from recording audio pieces.*

### Learning Outcomes

After completing the module the student should be able to:

- 1 Demonstrate and apply an understanding of sound theory
- 2 Operate industry-standard hardware and software to professional standards
- 3 Create recorded audio productions
- 4 Undertake live-production of a radio broadcast/podcast

### **Learning Outcomes of Assessments**

The assessment item list is assessed via the learning outcomes listed:

Practical assessment	2	3	4
Examination	1		

### **Outline Syllabus**

*Properties of the ear and auditory perception*  
*Room Acoustics, Frequency response, absorption, reverberation*  
*Properties of microphones (types, polar patterns, phantom power)*  
*Loudspeakers, PA systems, Amplifiers, Monitors*  
*Analogue Recording - Audio Mixing Desks, signal flow, mic/line, channel strip, input gain, EQ, Aux, Pan, Solo, Mute, Faders*  
*Digital Audio Workstations, interfaces, bit rates, buffers, sampling rates, dsp*  
*Levels – Decibels, metering, gain structure*  
*Connectivity, cabling, connectors, impedance*  
*Recording studio equipment*  
*Non-linear editing, dubbing and effects using computers*  
*Safe systems of work & relevant legislation*  
*Legal issues for digital rights and intellectual property*

### **Learning Activities**

Practical sessions and demonstrations. Student work groups

### **Notes**

The module encompasses an introduction to the theoretical knowledge and practical skills of audio & music production and to the equipment used in audio production. The module will cover both 'live-broadcast' and 'recorded' production. Students will be required to work both individually and in small groups using equipment to become familiar with its characteristics in a way that also demonstrates safe systems of work.