

Liverpool John Moores University

Title: ELECTRONICS FOR AUDIO
Status: Definitive
Code: **5027TECH** (105431)
Version Start Date: 01-08-2016

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

Team	Leader
Mahamoud Ahmed	Y

Academic Level: FHEQ5 **Credit Value:** 12 **Total Delivered Hours:** 50
Total Learning Hours: 120 **Private Study:** 70

Delivery Options

Course typically offered: Semester 1

Component	Contact Hours
Lecture	12
Practical	24
Tutorial	12

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Exam	AS1	examination	50	2
Essay	AS2	coursework - written assignment 1500 words	25	
Essay	AS3	Lab assignment - practical build	25	

Aims

To provide a practical knowledge of electronics for Audio technicians

Learning Outcomes

After completing the module the student should be able to:

- 1 evaluate the principles underlying design of audio circuits
- 2 Analyze the operation of audio circuits
- 3 Simulate and design simple audio circuits and loudspeakers
- 4 Use simple integrated circuits to build more complex systems

Learning Outcomes of Assessments

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

EXAM	1	2	3	4
CW	1	2		
CW	1	3	4	

Outline Syllabus

Tolerance and characteristics of real components
Transistors, types of emitters, capacitors for audio.
Decibels, Bode Diagrams.
Bandwidth, Noise bandwidth, stability
Low noise techniques
Design and Simulation of audio circuits
Loudspeaker design.
Audio devices and technology

Learning Activities

A series of lectures, tutorials and practical sessions

Notes

This module provides a practical knowledge of audio electronics for technicians.