

Liverpool John Moores University

Title: Desktop Audio 1
Status: Definitive
Code: **4522STE** (124034)
Version Start Date: 01-08-2021

Owning School/Faculty: Engineering
Teaching School/Faculty: Liverpool Institute for Performing Arts

Team	Leader
Karl Jones	

Academic Level: FHEQ4
Credit Value: 20
Total Delivered Hours: 73.5
Total Learning Hours: 200
Private Study: 126.5

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	30
Tutorial	2
Workshop	40

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Practice	Project	Demonstration of Practical Project	60	
Exam	Exam	Written Exam	40	1.5

Aims

This module provides students with a practical and theoretical introduction to the paradigm of desktop recording and production.

Starting with MIDI applications, students will be introduced to the MIDI protocol and the use of industry standard sequencing packages. They will then progress to using

non-linear recording and editing systems such as ProTools, and finally investigate the integration of audio and MIDI capabilities in modern sequencers.

Although the software and hardware systems have strong links with creating and producing music, being a musician is not a prerequisite for this module. Instead teaching and learning activities are presented in a manner designed to develop students' operational skills and understanding of these systems, and become creative in their application of them.

Learning Outcomes

After completing the module the student should be able to:

- 1 Identify and describe the data structure of MIDI and the underlying technologies of Desktop Audio systems
- 2 Use a non-linear recording and editing package to competently and confidently record and edit audio
- 3 Produce an audio mix to a defined brief that integrates audio and MIDI in a single platform within the confines of the desktop environment.

Learning Outcomes of Assessments

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

Practical Project	2	3
Written Exam	1	

Outline Syllabus

MIDI History

The development of MIDI; MIDI precursors – CV & Gate; Initial MIDI specification; early and subsequent uses.

MIDI routing

MIDI connections – In Out & Thru; The MIDI signal flow; MIDI fault-finding; AMS setup, interface types and applications; MIDI network topologies – daisy-chain vs. star networking; MIDI routing software layers; configuring routing software; sharing MIDI between software packages on the same computer.

MIDI Structure

Speed of MIDI; MIDI data structure; reading and using hexadecimal and binary in conjunction with MIDI; Channel messages; Note specific messages; Non-note messages; System messages.

Basic principles of sequencing; basic recording and playback of MIDI data; manipulating MIDI data – list, grid and drum editors, data filtering, quantising note data, using and editing controller data; operation and use of industry standard sequencing packages; MIDI data export and import.

Non-Linear Recording and Editing

Fundamental principles of non-linear recording; hard disc systems and types; audio

file formats –AIFF, BWAV; sample rate and bit depth; operation and use of typical NLE; editing conventions and techniques; DSP operations – plug-in types and architectures; real and non-real time FX; automation; integrating audio and MIDI capabilities – audio instruments, bouncing audio to disk; audio file management and housekeeping; backup and restore options.

Learning Activities

This module will be delivered using the following teaching and learning strategies:

Lectures to introduce key concepts and theories

Workshops to apply these concepts using appropriate software and hardware

Individual tutorials to support ongoing coursework development

Individual study in line with guidance and direction from tutors

Notes

Mark Atherton is the Module Leader (m.atherton@lipa.ac.uk)