Liverpool John Moores University

Title:	DESKTOP AUDIO 1
Status:	Definitive
Code:	**4511STE** (118558)
Version Start Date:	01-08-2016
Owning School/Faculty:	Electronics and Electrical Engineering
Teaching School/Faculty:	Liverpool Institute for Performing Arts

Team	Leader
Karl Jones	Y

Academic Level:	FHEQ4	**Credit Value:**	24	**Total Delivered Hours:**	81.5
Total Learning Hours:	240	**Private Study:**	158.5		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	30
Workshop	50

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Practice	PRACTICAL	PRACTICAL TASK AND DEMONSTRATION	60	
Exam	EXAM	WRITTEN EXAM	40	1.5

Aims

This module serves as a practical and theoretical introduction to the paradigm of desktop recording and production. In recent years, the boundary between MIDI sequencing and non-linear recording systems has become increasingly blurred, and requires an understanding of both of these elements and their relationship to each other in order to use them to their maximum capability.
Starting with MIDI applications, you will be introduced to the MIDI protocol and the

use of industry standard sequencing packages. You 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 you will be using have strong links with creating and producing music, being a musician is not a prerequisite for this module. Instead, the tasks you are asked to undertake will be presented to you in a manner designed to develop your operational skills and understanding of these systems, and become creative in your application of them.

Learning Outcomes

After completing the module the student should be able to:

1	Recall and explain 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 an appropriate standard (see assessment criteria) 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 TASK AND DEMONSTRATI	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 faultfinding; 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 in conjunction with MIDI; Channel messages; Note specific messages; Non-note messages; System messages.
Sequencing

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 – SDII, AIFF, WAV, 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; 3rd party manipulation tools; audio file management and housekeeping; backup and restore options.

Learning Activities

This module is delivered in both lecture and workshop format. The lecture will normally address theoretical or general concepts that are then put into the context of practical workshop sessions

Notes

As some of the software packages you will be learning can be complex, at times an extended demonstration will take the place of lectures and workshops. Where this happens, it will be offset in the following week by having longer workshop times.

Workshops in the early stages of the module will be task-based and tutor led. In the later stages of the module the workshops will be focussed towards the completion of your coursework, with the opportunity to book individual tutorials to help you with this, or to revisit subjects that you are having difficulty with.

Your coursework is designed to assess both your practical ability and your understanding of certain concepts and techniques. In addition to handing in a finished project, you will be expected to demonstrate and talk about your work to your tutor during a scheduled assessment time.