Liverpool John Moores University

Title:	STUDIO APPLICATIONS AND ACOUSTIC DESIGN
Status:	Definitive
Code:	**4502MPSH** (116185)
Version Start Date:	01-08-2011
Owning School/Faculty:	Liverpool School of Art & Design
Teaching School/Faculty:	St Helens College

Team	Leader
Stuart Borthwick	Y

Academic Level:	FHEQ4	**Credit Value:**	24.00	**Total Delivered Hours:**	87.00
Total Learning Hours:	240	**Private Study:**	153		

Delivery Options
Course typically offered: Standard Year Long

Component	Contact Hours
Lecture	25.000
Practical	40.000
Tutorial	6.000
Workshop	15.000

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Essay	AS1	An essay of 1,000 words regarding acoustics and the calculation of reverberation time	20.0	
Report	AS2	1000 word written report concerning studio design, budget and configuration	20.0	
Exam	AS3	A written exam – relating to studio equipment, techniques and processes	10.0	1.00
Artefacts	AS4	Two audio recordings produced using differing studio platforms	20.0	
Report	AS5	A 2,000 word written technical report of the processes	30.0	

Category	Short Description	Description	Weighting (%)	Exam Duration
		employed throughout the recordings		

Aims

To develop an understanding of the fundamental principles and technical processes of audio recording and production within a studio environment

To develop an awareness of the nature of acoustics and its importance in the field of studio recording and monitoring.

Learning Outcomes

After completing the module the student should be able to:

1 Have an understanding of acoustic treatment, shape / construction of studio space and wiring configurations A2
2 Identify and implement appropriate studio equipment and techniques to ensure effective recording C3
3 Plan, produce and mix studio recordings using a variety of platforms C4
4 Evaluate all technical processes using appropriate and descriptive terminology. B2
5 Work effectively as part of a team. D3

Learning Outcomes of Assessments

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

1000 words	1		
1000 words	2		
EXAM	2		
2 audio recordings	2	3	5
2000 words	4		

Outline Syllabus

Acoustic design: Room design and acoustic treatment
Reverberation: Acoustic energy, reflection, absorption and Sabine's formula
Microphones (types and construction)
Signal routing and wiring configurations
EQ (types, uses)
DAW recording/editing within the studio environment
Mixing techniques
Recording guitars

Recording drums
Recording session management
Dynamic Processors
Auxilliary effects

Learning Activities

Lectures, video presentations, workshops, practical work and academic tutorials and will be used for the delivery of this Module.

References

Course Material	Book
Author	Alton Everest, F. and Pohlman, K.C.
Publishing Year	2009
Title	Master Handbook of Acoustics
Subtitle	
Edition	5th ed.
Publisher	McGraw-Hill
ISBN	

Course Material	Book
Author	Crich, T.
Publishing Year	2005
Title	Recording Tips for Engineers
Subtitle	
Edition	2nd ed.
Publisher	Focal Press
ISBN	

Course Material	Book
Author	Howard, D.M. and Angus, J.A.S.
Publishing Year	2009
Title	Acoustics and Psychoacoustics
Subtitle	
Edition	4th ed.
Publisher	Focal Press
ISBN	

Course Material	Book
Author	Huber, D.M. and Runstein, R.E.
Publishing Year	2009
Title	Modern Recording Techniques
Subtitle	

Edition	7th ed.
Publisher	Focal Press
ISBN	

Course Material	Book
Author	Newell, P.
Publishing Year	2007
Title	Recording Studio Design
Subtitle	
Edition	2nd ed.
Publisher	Focal Press
ISBN	

Course Material	Book
Author	Owsinski, B.
Publishing Year	2009
Title	The Recording Engineers Handbook
Subtitle	
Edition	2nd ed.
Publisher	Delmar
ISBN	

Course Material	Book
Author	Rumsey, F. and McCormick, T.
Publishing Year	2009
Title	Sound and Recording
Subtitle	
Edition	6th ed.
Publisher	Focal Press
ISBN	

Notes

The first part of the Module will consist of theoretical background, practical demonstration and student workshop activities. Concepts dealt with in these sessions will include the nature of acoustics, basics of studio acoustic treatment as well as studio and control room design. Basic studio procedures will be explored including studio health and safety, microphone types and techniques, mixing consoles, signal routing and wiring configurations through to the nature of EQ, effects, dynamic processing etc. Techniques and processes relating to the basic studio recording and production will be covered as well as sessional planning and management.

Practical work in the second Semester will focus on students developing recording and engineering skills using a variety of hardware / software within the studio environment.