Liverpool John Moores University

Title:	SOUND DESIGN FOR FILM, TV AND VIDEO
Status:	Definitive
Code:	**5514STE** (118568)
Version Start Date:	01-08-2019
Owning School/Faculty:	Engineering
Teaching School/Faculty:	Liverpool Institute for Performing Arts

Team	Leader
Karl Jones	

Academic Level:	FHEQ5	**Credit Value:**	12	**Total Delivered Hours:**	37.5
Total Learning Hours:	120	**Private Study:**	82.5		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	12
Workshop	24

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Practice	MIX		60	
Exam	EXAM		40	1.5

Aims

This module is intended to provide you with practical and theoretical skills necessary to work with sound when allied to the film and television industries. You will learn the skills needed to effectively record and edit audio for video, and will be introduced to the idea of post-producing or 'sweetening' audio for TV and film. You will also be given a broad overview of the supporting processes and technologies involved in video production so that you can see where sound design fits into this process. Although largely applied to Video and Television, you will find that some of these

skills have applications in other areas, including computer entertainment, and increasingly music mixing. Towards the end of the module, we will cover theoretically some of the issues surrounding working with film, although your work will be based primarily around video.

Learning Outcomes

After completing the module the student should be able to:

1	Apply established forms and conventions in the production of audio for moving image
2	Produce audio for a piece of video selecting appropriate technical methods
3	Use a surround capable desk / DAW to produce mixes in Dolby Surround and Dolby Digital
4	Explain the key technological principles and workflows associated with sound for film and television

Learning Outcomes of Assessments

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

5.1 AND LT/RT MIX FOR LAYBACK	1	2	3
WRITTEN EXAM	4		

Outline Syllabus

Timecode Revisited
VITC and its relationship to LTC and Video Sync; Frame Edge tolerances; User bits; Timecode on location; Serial timecode and 9-pin command modes; Principles of layback; Audio for video layback in practice; Syncing DAWs accurately to picture

Video and television signals and formats
Chrominance, Luminance and Sync; Recording formats and embedded audio; Interlaced vs. non-interlaced images; video bandwidth and relationship to picture resolution and timecode capability; digital video formats

Sound and Picture
Overview and historical background to sound for picture; Natural sound versus produced sound; Gestalt and Pyschoacoustic principles; Sound Groups; TV versus Film sound conventions; Music in Film

Sound FX
Building effects; Suspending disbelief; Foley FX; Digital Effects and EQ as tools for FX building

Using Pyramix and VCube
Understanding Libraries and Media Folders; Internal Signal Routing; External Signal Routing; Basic editing functions; Spotting FX and Sync Markers; Slipping and

Trimming Cues; DSP Functions; Mixer and Monitor functions; Trimming Cues; VCube ingest and compositions; Virtual Transport for synchronisation

Dialog
Using wild dialog; Basic considerations for location dialog; ADR or Looping; Microphone technique for dialog replacement

Multichannel Sound
Multi-channel sound history; Matrixed 4:2 surround theory, advantages and limitations; Dolby Surround and Steering; Compatibility Issues; Recording and Mixing prerequisites; Surround sound monitoring and signal paths; The role of the matrix; LT/RT Encoding; Practical considerations for mixing; Bandwidth limitations and solutions; Using the centre channel; Premixes; Monitoring Modes; Using automation; Discrete multi-channel formats, Dolby Digital, DTS and SDDS; The AC3 Codec; Perceptual Coding Theory; AC3 Adaptive Bit Allocation and Data Rates; Down Mixing advantages and disadvantages; Bass Management Issues in 5.1; Using AC3 Metadata; Dolby E

Working with film
Bi-phase and pilot tone sync; The frame rate transfer problem; Understanding Pull Up/Pull Down; Edit Decision Lists; Autoconforming

ProTools in Post-Production
Sync Markers and Spotting Tools; Movie Floats and frame rates; 5.1 Stems and Panning; Using software monitor paths; Typical linear and non-linear workflows; Sneakernet vs. Storage Area Networking; The Open Media Framework; Wrappped and un-wrapped OMF datasets; OMF Import and Export

Learning Activities

Teaching will consist of a one and a half hour lecture per week, and one and a half hours of workshops. Generally speaking, lectures will cover underlying theoretical concepts, whilst workshop sessions will put these concepts into practice.

Notes

You will be working in groups of 3 or 4 for your practical work and will need to have formed yourself into these groups by the end of the fifth week of the module. Workshop groups will be scheduled to reflect your working groups in the latter half of teaching.