Liverpool John Moores University

Title: ADVANCED LIVE SOUND
Status: Definitive
Code: **6523STE** (118580)
Version Start Date: 01-08-2019

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

Team	Leader
Karl Jones	Y

Academic Level:	FHEQ6	Credit Value:	12	Total Delivered Hours:	40
Total Learning Hours:	120	Private Study:	80		

Delivery Options
Course typically offered: Semester 2

Component	Contact Hours
Lecture	10
Tutorial	20
Workshop	10

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Presentation	LIVE EVENT	LIVE EVENTS	70	
Essay	WRITTEN	WRITTEN ASSIGNMENTS	30	

Aims

This module aims to provide the learner with the opportunity to apply knowledge and finesse skills learnt in Levels 4 and 5 in a wholly practical context, as much of the delivery of the module is built around providing the technical input to major performances and shows. In addition, a number of alternative, advanced technical approaches will be explored which will enable the student to achieve a higher standard and work more efficiently.

Learning Outcomes

After completing the module the student should be able to:

1   Demonstrate a detailed knowledge and skilled use of speaker arraying technologies/methodologies, live digital consoles, automation, show control and digital audio distribution/networking
2   Independently design, rig and operate a medium to large-scale sound reinforcement system to support a specific production
3   Undertake the organisational and technical roles and responsibilities of Sound Designer, production sound engineer and sound number 1 and 2
4   Apply professional fault-finding skills and solve problems/apply solutions to complex/challenging live sound situations
5   Critically evaluate their performance in relation to their differing roles

Learning Outcomes of Assessments

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

LIVE EVENTS   1   2   3   4

WRITTEN   5
ASSIGNMENTS

Outline Syllabus

Speaker Arraying Technologies
Line Array theory and application – advantages and disadvantages. Calculating system performance and coverage based on transducer properties and arraying methods.

Digital Mixing
Advantages and disadvantages; working with recall and automation; digital audio distribution and networked systems; remote pre-amplification; working with mix layers

Communications
Comms requirements and approaches; RI systems; cue lights; video systems and distribution

Advanced Monitoring Techniques
Headphone distribution systems; wired vs. wireless (including further study of RF systems); specific approaches for musical theatre; problem solving monitoring – automated devices for increasing GBF

Advanced System Measurement and Tuning
Advanced theory and practical application of SMAART for system alignment; design and considerations in arrayed systems.

Show Control and Automation
Incorporating timecode to live performance, integrating console automation; automation of image shift and sound effects with TiMax including approaches to multi-channel sound for theatre

Learning Activities

This module is built around the specific technical requirements of a number of public performances at LIPA. Whilst these performances are in production, teaching will be based around workshops and tutorials designed to address the particular requirements of these shows. At other times, lectures and small group workshops will be employed to cover advanced theoretical concepts and their practical application.

Notes

Visiting practitioners will also provide input to specific technical areas, and there will be the opportunity to take part in field trips to observe the design and deployment of large-scale sound reinforcement systems at a variety of external venues.