LIPA
THE LIVERPOOL INSTITUTE FOR PERFORMING ARTS

Module Specification

Summary Information

Module Code	6602STE
Formal Module Title	Advanced Live Sound
Career	Undergraduate
Credits	30
Academic level	FHEQ Level 6
Module Pass Mark	40

Learning Methods

Learning Method Type	Hours
Lecture	20
Practical	24
Workshop	48

Module Offering(s)

Start Month	Duration
September	28 Weeks

Aims and Outcomes

Aims	To extend the knowledge and skills in the area of sound reinforcement gained in Levels 4 and 5. To undertake significant technical roles in a number of live productions simulating professional practice.

Learning Outcomes

After completing the module the student should be able to:

Code	Description
MLO1	Demonstrate a detailed knowledge and skilled use of speaker arraying technologies/methodologies, advanced live digital console function and applications, automation, show control and digital audio distribution/networking – design and deployment.
MLO2	Independently design, rig and operate a medium to large-scale sound reinforcement system to support a specific production.
MLO3	Undertake the organisational and technical roles and responsibilities of Sound Designer, Production Sound Engineer and Sound Number 1 and 2.

MLO4	Propose solutions to complex/challenging live sound situations and evaluate their effectiveness.

Module Content

Outline Syllabus
Large-scale event speaker system design, directivity control, application and logistics Including line array theory and application, low frequency dispersion and management, system response prediction and modelling, processing and control; planning and deployment. **Live Sound Digital Mixing consoles –** Advanced features to support a variety of live sound production environments, working with recall and automation, remote pre-amps, mix layers and application specific features. **Digital audio transmission and networking for live sound applications** Audio infrastructure and network planning, design and implementation; varying approaches based on system/production requirements. **Communications** Comms requirements and systems for large-scale events; RI and matrixed solutions; cue lights, video systems and distribution. **Advanced Monitoring Techniques** Options and solutions for complex and challenging live sound monitoring requirements using wired and wireless systems and automated devices for increasing GBF. **Advanced RF** Working with large-scale RF systems for live events including frequency planning and management; similarities and differences between analogue, digital and hybrid RF systems. **Advanced System measurement and Optimisation** Advanced theory and practical application of dual channel measurement systems for advanced optimisation including phase coherence and alignment. **Show Control and Automation** Incorporating timecode and console automation in to live performance, systems and techniques for improving clarity, separation and localisation in live productions, automation of image shift and sound effect animation in live sound multi-channel applications.
Additional Information

A pre-requisite for undertaking this module is 5602STE Live Sound 2.

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. 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 lectures, workshops and tutorials designed to address the particular requirements of these shows. At other times, lectures and group workshops will be employed to cover advanced theoretical concepts and their practical application. 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.

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Learning Outcome Mapping
Practice	Practical Assessment	85	0	MLO1, MLO2, MLO3
Report	Evaluation (1000 words)	15	0	MLO4