

# Sound Reinforcement 1

## Module Information

2022.01, Approved

### Summary Information

Module Code	4523STE
Formal Module Title	Sound Reinforcement 1
Owning School	Engineering
Career	Undergraduate
Credits	20
Academic level	FHEQ Level 4
Grading Schema	40

### Teaching Responsibility

LJMU Schools involved in Delivery
LJMU Partner Taught

### Partner Teaching Institution

Institution Name
Liverpool Institute for Performing Arts

### Learning Methods

Learning Method Type	Hours
Lecture	20
Practical	12
Workshop	22

### Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
SEP-PAR	PAR	September	12 Weeks

## Aims and Outcomes

Aims	This module aims to provide the student with the core practical skills and theoretical knowledge required to work in the field of sound reinforcement. Whilst there is some overlap in both theory and practice between this and studio based work, this module will place these in the context of live sound, in addition to introducing the student to new skills and techniques. Particularly importantly, these skills will enable the student to work effectively collaboratively in a live sound context throughout the rest of the year. The majority of applications covered in this module centre around small to medium scale portable sound reinforcement systems in the context of popular music performance. In addition to the technical skills required, the learner will also be given the opportunity to develop the interpersonal skills that are equally important in this and other areas of sound production.
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**After completing the module the student should be able to:**

### Learning Outcomes

Code	Number	Description
MLO1	1	Plan for a small to medium live music event including appropriate sound reinforcement system design/deployment and non-technical considerations
MLO2	2	Demonstrate an understanding of the underlying theories relating to the design and use of sound reinforcement systems
MLO3	3	Apply a range of technical and creative skills and methodologies in the set-up, commissioning and operation of a sound reinforcement system
MLO4	4	Discuss the non-technical influences on a live performance and suggest measures to take account of these
MLO5	5	Analyse their performance in a designated role of a sound reinforcement team

## Module Content

Outline Syllabus	Sound Reinforcement Basics Background; reinforcement definition; system components and architectures – live sound consoles, amplifiers, crossovers, loudspeakers; signal flow and gain structures; safe working practices Sound Theory and Listening Frequency awareness – listening for audible artefacts/feedback; audio theory in the context of live sound – room modes, acoustic coupling, feedback, delay; basic analysis tools (including ears); amplifier and speaker matching – impedance and power; developing a sensible approach to compromise Mic Technique and Input Strategy Mic selection and deployment in the live audio environment – dynamic vs. condenser, polar pattern effects, mic techniques for performers; input strategies, channel lists, stage plans, microphone splitting Mixing Structure of live mix; techniques to aid clarity and avoid feedback; using FX and processors for FOH purposes; working with audio sub-groups and VCAs for mixing; introduction to digital mixing consoles for live sound Monitors Need for monitoring – approaches to provide monitoring; auxs vs. separate monitor desk; wedges and fills; positioning monitors, voicing and EQ for monitor mixes; relationship between stage sound and FOH sound Interpersonal Skills and Time Management Working in a team; working with artists; protocol and procedures for line checks, sound checks and changeovers; planning production schedules and get-in / get-out; technical resource planning Basic System Design Matching technical specification to room size; choosing appropriate equipment; common problems and solutions – feedback, dispersion, coverage; tuning FOH systems.
Module Overview	
Additional Information	Chris Layton is the Module Leader (c.layton@lipa.ac.uk)

## Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Practice	Plan and execute sound product	70	0	MLO1, MLO2, MLO3, MLO4
Report	Written Assignment	30	0	MLO2, MLO4, MLO5

## Module Contacts

### Module Leader

Contact Name	Applies to all offerings	Offerings

### Partner Module Team

Contact Name	Applies to all offerings	Offerings