

Immersive Audio

Module Information

2022.01, Approved

Summary Information

Module Code	6544STE
Formal Module Title	Immersive Audio
Owning School	Engineering
Career	Undergraduate
Credits	10
Academic level	FHEQ Level 6
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	5
Practical	40
Seminar	5
Workshop	20

Module Offering(s)

Display Name	Location	Start Month	Duration Number Duration Unit
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JAN-PAR	PAR	January	12 Weeks
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Aims and Outcomes

Aims	To evaluate and apply a variety of recording, processing and mixing tools relevant to the current practice in immersive audio. To develop an awareness of the production options and conventions in the field of spatial audio.
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After completing the module the student should be able to:

Learning Outcomes

Code	Number	Description
MLO1	1	Evaluate and apply a range of immersive audio software and hardware tools relevant to music, post production, game and theatre applications.
MLO2	2	Employ and assess a range of spatial microphone capture techniques.
MLO3	3	Confidently assemble and complete an audio production project with a focus on a specialist area of immersive audio.

Module Content

Outline Syllabus	Historical Overview of Spatial Audio (Music, Stereo, Multichannel) Psychoacoustic Essentials (Duplex, HRTF, BMLD, Precedent) Binaural Recording and Production (Dummy Head, 3D Panning Tools) Multi Microphone Techniques Ambisonics (FOA, HOA, Microphone options) Music Ensemble Recording Applications Electronic Music Production Applications Film Post Production Applications VR and Game Audio Applications Spatial Metering Overview of Current Research and Standards Current Commercial Developments
Module Overview	
Additional Information	Peter Philipson is the Module Leader (p.philipson@lipa.ac.uk).

Assessments

Assignment Category	Assessment Name	Weight	Exam/Test Length (hours)	Module Learning Outcome Mapping
Portfolio	Immersive Audio Portfolio	100	0	MLO1, MLO2, MLO3

Module Contacts

Module Leader

Contact Name	Applies to all offerings	Offerings

Partner Module Team

Contact Name	Applies to all offerings	Offerings