

Liverpool John Moores University

Title: VR and Immersive Audio
Status: Definitive
Code: **6509CTP** (126507)
Version Start Date: 01-08-2021

Owning School/Faculty: Liverpool Screen School
Teaching School/Faculty: Liverpool Institute for Performing Arts

Team	Leader
Mark Smith	

Academic Level: FHEQ6
Credit Value: 20
Total Delivered Hours: 60
Total Learning Hours: 200
Private Study: 140

Delivery Options

Course typically offered: Standard Year Long

Component	Contact Hours
Workshop	60

Grading Basis: 40 %

Assessment Details

Category	Short Description	Description	Weighting (%)	Exam Duration
Practice	AS1	Practical Project (2500 words equivalent)	70	
Report	AS2	Written Project Proposal for mixed reality concept (2000 words)	30	

Aims

The aim of this module is to engage students in the design, acquisition and creation of audio-visual artefacts harnessing developing approaches to VR and immersive audio.

Learning Outcomes

After completing the module the student should be able to:

- 1 Synthesise knowledge of vision and audio capture and dissemination for VR and immersive applications
- 2 Integrate immersive audio techniques into live performance and recorded artefacts
- 3 Evaluate the potential for VR and immersive audio delivery within a specific sector of the creative industries

Learning Outcomes of Assessments

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

Practical Project	1	2
Written Project Proposal	3	

Outline Syllabus

The module will examine the nature of sound localisation and immersion; techniques for 3-D audio capture including binaural and first order ambisonics; 3D camera systems and post-production workflows; challenges of form and convention in presentation and delivery; delivery systems and approaches for recorded VR media and integration with live performance; head-tracking and real-time audio rendering; interactive and immersive theatre and the role of new technologies and multimodal interaction; AR/VR/MR/AV for live performance. It will include evaluations of emerging approaches, techniques and applications in conjunction with visiting practitioners and masterclasses

Learning Activities

This module requires students to develop practical skills alongside the presentation of ideas and critical contexts and as such is best suited to workshop-based learning where flexible and varied activities including skills sessions, discussions and informal presentations can be designed on a weekly basis.

Notes

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