Glasgow School of Art Course Specification
Immersive Systems 2 - Interactions
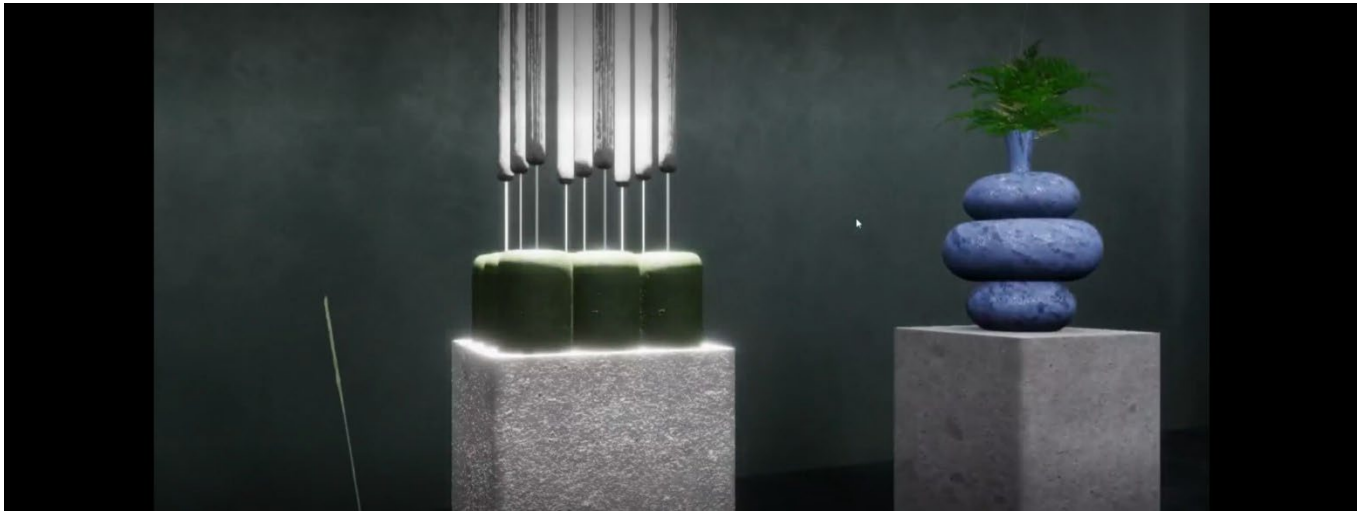

Image credit: Ramya Iyer, BSc Immersive Systems Design (2022)

Course Code	HECOS Code	Academic Session
		2025-26

Course Title	Immersive Systems 2 - Interactions
Course Contact	Dr Jamie Iona Ferguson

Credits	40
SCQF Level	8
When Taught	Stage 2, Semester 2

Associated Programmes	BSc (Hons) Immersive Systems Design
Lead School	School of Innovation and Technology (SIT)
Other Schools	N/A
Date of Approval	PACAAG August 2024

Course Introduction

This course serves as an introduction to the formal conceptualisation, planning, scheduling and development of XR applications. Students are introduced to programming and the tools and techniques used for sound production in digital environments and extended reality (XR) technologies (i.e. Virtual Reality, Augmented Reality). Experience design is a core practice in the production of Immersive Systems applications. The course introduces audio approaches and practices prior to applying newly acquired user centred skills and knowledge to the development of an XR application. The skills and knowledge taught in this course are complementary to existing skills and foundational towards the rest of the programme. Students will incorporate both audio and user centred design approaches for the development of XR applications as part of their creative process in their chosen disciplines or study pathways.

Course Aims

The overall aim of the course is to support students in developing proficiency XR development and confidence in their creative approach and design practice.

Other aims include an introduction to basic audio and user centred design fundamentals and practices towards the development and production of XR application. Students are tasked with researching, designing and implementing audio for a simple XR application using game engine and audio immersive functionalities. The course aligns with established processes in the immersive media disciplines. Furthermore, students are taught intermediate elements of XR technology and user centred design. Consideration of user centred design introduces students to creative citizenship – developing systems for different potential users, and barriers to use.

Course Intended Learning Outcomes

By the end of this course students will be able to:
- Select appropriate specialist data acquisition methods for the generation of assets appropriate for interactive XR applications
- Contextually apply core skills and abilities in the development of an XR application
- Demonstrate an understanding of user centred design as applied to interactive application development

• Demonstrate an understanding of the main components and principles which create effective soundscapes in immersive media

Indicative Content

The class material introduces students to the foundations of sound design, programming and the use of XR tools and functionalities to develop a range of XR applications.

Indicative content includes:
- Sound design
- Audio listeners, audio sources and effects
- Digital Audio Workstations
- Scripting audio
- Interactive audio
- User centred design
- XR development
- Photogrammetry and Scanning
- Data acquisition
- User Evaluation

Description of Learning and Teaching Methods

This course and its programme are situated within a contemporary Art School environment and self-directed studio activities and initiatives. These have a strong component of **individual student learning** contributing to the discovery and development of self and the discipline of study. As such briefs tend to be opened to interpretation and require students to critically reflect on the nature of their creative response and individual learning.

Lectures and seminars are used to disseminate theoretical, contextual and historical knowledge and address specific issues underpinning practical work. Lectures also have the broad aim of generating further debate in seminars, tutorials or further enquiry in self-directed learning or research.

Labs, Tutorials, Workshops, and Practical sessions provide students with hands-on experience. These sessions usually follow or relate to lectures and take place in computer laboratories as practical classes. Lecturers/Demonstrators will be on-hand during the sessions to help students and answer their questions. Tutorials vary between individual student-tutor tutorials, group tutorials and workshops. These provide opportunities for scaffolded problem solving and discussion, and for broader discussion of the programme themes and topics.

Input from **visiting lecturers and guest speakers** enable students access to, and understanding of, relevant contemporary practice, research and commercial contexts, practices and expectations. These curricular activities contribute to aid students in developing their own professional practice and prepare for employment.

Supervised GameJams/Hackathons provide Immersive Systems students with thematic technology focussed exercises where students work in groups to engage intensively in game or interactive technology development.

This course is supported by a virtual learning environment tool (Canvas) for the dissemination, discussion and access to relevant course information, and signpost to other relevant teaching and learning platforms used by GSA.

Indicative Contact Hours	Notional Learning Hours
40	400

Description of Formative Assessment and Feedback Methods

Students are supported in their learning through a range of formative assessment activities as they progress through the course. These include:
- Engagement in a range of peer review activities
- Regular feedback from tutors through in-class discussion and question and answer activities
- Written or verbal feedback from tutors on work in progress
- Formal review point halfway through the course

Description of Summative Assessment arrangements

Summative assessment aligns with the learning outcomes of the course and is directly applicable to the student's individual and chosen pathway of study. Assessment is designed to support students to reflect upon their digital art practice, allowing them to not only demonstrate their learning through assessment, but also meaningfully apply their learning to their practice and developing their creative-practitioner identity.

Students will be assessed on their ability to produce and deliver a range of activities in the areas of 3D modelling towards the development of an XR application. The assessment will focus on the technical aspects of delivery and on the student's ability to gather and reflect on user data towards an informed reflection on user experience.

Submissions will be assessed and moderated in line with the Code of Assessment.

Reassessment opportunities where a student has not passed the course are outlined in the Code of Assessment.

Description of Summative Assessment Method	Weight %	Submission week
Practical (XR project + 3D assets)	60 %	Week 10
Evaluation Report (1200 words)	40 %	Week 11

Exchange/Study Abroad	
Can this course be taken by Exchange/Study Abroad students?	Yes
Are all the students on the course taught wholly by distance learning?	No
Does this course represent a work placement or a year of study abroad?	No
Is this course collaborative with any other institutions?	No
If yes, then please provide the names of the other teaching institutions	

Reading and On-line Resources

The course indicative Reading and on-line resource list is accessible via Resource Lists.
This list will be reviewed and updated annually to reflect course content and subject developments.