Module Descriptor

Title	Immersive Experiences Design		
Session	2025/26	**Status**	Published
Code	COMP10080	**SCQF Level**	10
Credit Points	20	**ECTS (European Credit Transfer Scheme)**	10
School	**Computing, Engineering and Physical Sciences**		
Module Co-ordinator	Marco Gilardi		

Summary of Module

The emergence of extended reality (XR) technologies has introduced new paradigms for work and entertainment. The adoption of XR has gone beyond games, percolating into work, marketing, and leisure. Being able to design XR experiences has become a skill that is being looked after in many job settings (from engineering, to cultural heritage, including computer games).

This module will teach students how to design XR experiences, and develop paper and low fidelity prototypes for them. Students will learn the principles of design for XR and the issues related to these technologies, moreover, students will learn how to use paper prototyping, wireframing, and low fidelity prototyping for XR to ensure that needs, requirements and limitations of a project are met.

After this module students will be able to design and prototype immersive experiences using XR that can be used for computer games, industry and education.

The module will introduce the following concepts:

- Fundamental principles of human centred design for XR
- Planning and designing using Imagineering
- Wireframing and paper prototyping for XR
- Low-fidelity prototyping for XR
- Introduction to 3D user interfaces

• Introduce students to new technologies that are influencing computer games development, visualisation of data, cultural experiences, and communication of information in general

• Give students design and prototyping experience with Virtual Reality, Augmented Reality and Mixed Reality using different technologies

- Make students reflect on the thinning of the gap between virtual worlds and real worlds and exploit it for innovation

- This module embeds the key "I am UWS" graduate attributes and in particular: Universal, Work Ready and Successful. Attributes covered in this module are: Academic Universal (Critical Thinker, Analytical, Inquiring) Work Ready (Knowledgeable, Digitally Literate, Problem-solver) Successful (Autonomous, Innovative) Personal Universal (Ethically-minded, Culturally aware) Work Ready (Effective communicator, Motivated) Successful (Creative, Imaginative, Resilient) Professional Universal (Collaborative, Research-minded) Work Ready (Enterprising, Ambitious) Successful (Driven, Daring, Transformational)

Module Delivery Method	**On-Campus**[1] ☒	**Hybrid**[2] ☐	**Online**[3] ☐	**Work -Based Learning**[4] ☐
Campuses for Module Delivery	☐ Ayr ☐ Dumfries	☐ Lanarkshire ☐ London ☒ Paisley	☐ Online / Distance Learning ☐ Other (specify)	

Terms for Module Delivery	Term 1	☒	Term 2	☐	Term 3	☐
Long-thin Delivery over more than one Term	Term 1 – Term 2	☐	Term 2 – Term 3	☐	Term 3 – Term 1	☐

Learning Outcomes	
L1	Apply the principles of HCI to the context of immersive experiences design
L2	Be able to design an immersive experience
L3	Be able to wireframe, paper prototype, and low-fi prototype using XR an immersive experience
L4	Explain the principles and issues related to Virtual Reality and Augmented Reality technologies
L5	

Employability Skills and Personal Development Planning (PDP) Skills

[1] Where contact hours are synchronous/ live and take place fully on campus. Campus-based learning is focused on providing an interactive learning experience supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus contact hours will be clearly articulated to students.

[2] The module includes a combination of synchronous/ live on-campus and online learning events. These will be supported by a range of digitally-enabled asynchronous learning opportunities including learning materials, resources, and opportunities provided via the virtual learning environment. On-campus and online contact hours will be clearly articulated to students.

[3] Where all learning is solely delivered by web-based or internet-based technologies and the participants can engage in all learning activities through these means. All required contact hours will be clearly articulated to students.

[4] Learning activities where the main location for the learning experience is in the workplace. All required contact hours, whether online or on campus, will be clearly articulated to students

SCQF Headings	During completion of this module, there will be an opportunity to achieve core skills in:
Knowledge and Understanding (K and U)	**SCQF 10** Demonstrate and/or work with: Knowledge in the issues pertaining the use of immersive technologies for entertainment, visualisation and communication. A critical understanding of the principal theories, concepts and principles that regulate the design of immersive experiences using immersive technologies. Detailed knowledge and understanding in immersive experience prototyping. Knowledge and understanding of the ways in which immersive experiences are designed and prototyped, including a range of established techniques of enquiry and research methodologies
Practice: Applied Knowledge and Understanding	**SCQF 10** Use a wide range of practical professional skills, techniques, and materials associated with immersive experiences. Use skills, techniques, practices and materials that are specialised and at the forefront of a immersive experiences design. Executing a defined project of research and design identifying and prototyping relevant outcomes. To practise in a range of professional level contexts that include a degree of unpredictability and specialism
Generic Cognitive skills	**SCQF 10** Critically identify, define, conceptualise and analyse complex professional problems and issues. Offer professional insights, interpretations and solutions to problems and issues. Demonstrate some originality and creativity in dealing with professional issues. Critically review and consolidate knowledge, skills, practices and thinking in immersive experiences design. Make judgements where data and information is limited or comes from a range of sources
Communication, ICT and Numeracy Skills	**SCQF 10** Present or convey, formally and informally, information about specialised topics to informed audiences. Communicate with peers, senior colleagues and specialists on a professional level
Autonomy, Accountability	**SCQF 10** Exercise autonomy and initiative in professional/equivalent activities.

and Working with Others	Exercise significant managerial responsibility for a range of resources. Practise in ways that show awareness of own and others' roles and responsibilities. Work with others to bring about change, development and/or new thinking. Manage complex ethical and professional issues in accordance with current professional and/or ethical codes or practices. Recognise the limits of these codes and seek guidance where appropriate

Prerequisites	**Module Code**	**Module Title**
	Other	
Co-requisites	**Module Code**	**Module Title**

Learning and Teaching	
In line with current learning and teaching principles, a 20-credit module includes 200 learning hours, normally including a minimum of 36 contact hours and maximum of 48 contact hours.	
Learning Activities During completion of this module, the learning activities undertaken to achieve the module learning outcomes are stated below:	**Student Learning Hours** (Note: Learning hours include both contact hours and hours spent on other learning activities)
Lecture / Core Content Delivery	7
Tutorial / Synchronous Support Activity	28
Laboratory / Practical Demonstration / Workshop	13
Independent Study	152
Please select	
Please select	
TOTAL	200

Indicative Resources
The following materials form essential underpinning for the module content and ultimately for the learning outcomes: Hillmann C. (2021) UX for XR: User Experience Design and Strategies for Immersive Technologies. Apress

Wu, D., Pham, L., Kess, J., Petryaevskaya, I. (2024) Spatial Design. XReality Pro

Jason Jerald (2015) The VR Book: Human-Centered Design for Virtual Reality. ACM Books

LaViola J. J. Jr, Kruijff E., McMahan R. P., Bowman, D. A., Poupyrev I. (2017) 3D User Interfaces. Addison-Wesley

Bucher J. (2021) Storytelling for Virtual Reality: Methods and Principles for Crafting Immersive Narratives. Routledge

(N.B. Although reading lists should include current publications, students are advised (particularly for material marked with an asterisk*) to wait until the start of session for confirmation of the most up-to-date material)

Attendance and Engagement Requirements

In line with the Student Attendance and Engagement Procedure, Students are academically engaged if they are regularly attending and participating in timetabled on-campus and online teaching sessions, asynchronous online learning activities, course-related learning resources, and complete assessments and submit these on time.

For the purposes of this module, academic engagement equates to the following:

The School of Computing, Engineering and Physical Sciences considers attendance and engagement to mean a commitment to attending, and engaging in, timetabled sessions. You will scan your attendance via the scanners each time you are on-campus and you will login to the VLE several times per week. Where you are unable to attend a timetabled learning session due to illness or other circumstance, you should notify the Programme Leader that you cannot attend. Across the School an 80% attendance threshold is set. If you fall below this, you will be referred to the Student Success Team to see how we can best support your studies.

Equality and Diversity

The University's Equality, Diversity and Human Rights Procedure can be accessed at the following link: UWS Equality, Diversity and Human Rights Code.

Aligned with the University's commitment to equality and diversity, this module supports equality of opportunity for students from all backgrounds and learning needs. Using the VLE, material will be presented electronically in formats that allow flexible access and manipulation of content. This module complies with University regulations and guidance on inclusive learning and teaching practice. This module has lab-based teaching and as such you are advised to speak to the Module Co-ordinator to ensure that specialist assistive equipment, support provision and adjustment to assessment practice can be put in place, in accordance with the University's policies and regulations.

(N.B. Every effort will be made by the University to accommodate any equality and diversity issues brought to the attention of the School)

Supplemental Information

Divisional Programme Board	**Computing**
Overall Assessment Results	☐ **Pass / Fail** ☒ **Graded**
Module Eligible for Compensation	☐ **Yes** ☐ **No** **If this module is eligible for compensation, there may be cases where compensation is not permitted due to**

	programme accreditation requirements. Please check the associated programme specification for details.
School Assessment Board	Creative
Moderator	Thomas Hainey
External Examiner	Sylvester Arnab
Accreditation Details	
Module Appears in CPD catalogue	☐ **Yes** ☐ **No**
Changes / Version Number	1.1

Assessment (also refer to Assessment Outcomes Grids below)
Assessment 1
Class Test – 40%
Assessment 2
Design/ Diagram/ Drawing/ Photograph/ Sketch – produce an XR design document and accompanying paper and low fidelity prototypes - 60%
Assessment 3
(N.B. (i) Assessment Outcomes Grids for the module (one for each component) can be found below which clearly demonstrate how the learning outcomes of the module will be assessed. (ii) An indicative schedule listing approximate times within the academic calendar when assessment is likely to feature will be provided within the Student Module Handbook.)

Component 1							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Class Test	☐	☐	☐	☒	☐	40	2

Component 2							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
Design/ Diagram/ Drawing/ Photograph/ Sketch	☒	☒	☒	☐	☐	60	0

Component 3							
Assessment Type	**LO1**	**LO2**	**LO3**	**LO4**	**LO5**	**Weighting of Assessment Element (%)**	**Timetabled Contact Hours**
	☐	☐	☐	☐	☐		
Combined total for all components						100%	2 hours

Change Control

What	When	Who
Updated Attendance and Engagement and EDI	29.08.25	A Adamson