

Glasgow School of Art Course Specification
Course Title: BSc Immersive Systems Design Studio 1

Please note that this course specification is correct on the date of publication but may be subject to amendment prior to the start of the 2023-24 Academic Year.

Course Code:	HECOS Code:	Academic Session:
UISD101		2023-24

1. Course Title:
BSc Immersive Systems Design Studio 1

2. Date of Approval:	3. Lead School:	4. Other Schools:
PACAAG April 2020	School of Innovation and Technology	N/A

5. Credits:	6. SCQF Level:	7. Course Leader:
40	7	Sandy Louchart

8. Associated Programmes:
BSc Immersive Systems

9. When Taught:
Semesters 1 & 2

10. Course Aims:
<p>In studio, students are provided with a range of briefs and, through a scaffolded process, develop their own solutions and systems to meet those briefs. Students will apply the basic knowledge and skills gained in taught courses, and develop and consolidate their knowledge and skills through a range of projects, building towards a portfolio of work.</p> <ul style="list-style-type: none"> • To explore through practice fundamental aspects in software development, 3D modelling, and immersive systems development. • To develop practical experience, and basic critical understanding of immersion and user experience • To gain practical experience in the collaborative development of immersive and interactive systems.

11. Intended Learning Outcomes of Course:
<p>By the end of this course students will be able to:</p> <p>Knowledge and Understanding</p> <ul style="list-style-type: none"> • Demonstrate, through practice, knowledge of the main theories, concepts and principles of immersive systems.

- Demonstrate a broad understanding of user experience for interactive systems.

Practice: Applied Knowledge, Skills and Understanding

- Use appropriate software tools to design & develop simple 3D interactive and non-interactive visualisations
- Undertake a user requirements gathering exercise
- Create simple integrated systems using physical computing as input mechanism

Generic Cognitive Skills

- Evaluate and present arguments, information and ideas routine to immersive systems

Communication, ICT and Numeracy Skills

- Communicate ideas, information and work using visual, oral and written forms.
- Use ICT to convey complex ideas in a well-structured and coherent form to peers and staff.

Autonomy, Accountability and Working with Others

- Exercise some autonomy, initiative and independence in carrying out set project briefs.

12. Indicative Content:

Learning in Studio 1 is structured through a series of practical projects and briefs, supplemented by tutorials, talks and discussions.

Immersive Systems projects and briefs will cover:

- Developing non-interactive 3D content (including 2D conceptualisation, object animation rendering and basic post production)
- Simple interactive systems projects with hardware systems
- Simple immersive systems (e.g. AR/VR or 3D game) projects using middleware (e.g. Unity, Unreal)

The projects will provide students with experience of:

- Reflective practice on the nature of immersion in interactive systems.
- Reflective practice on designing for the interactive user (i.e. processes, user experience, flow).
- Practical application of basic interaction design methodologies and principles.
- Creative exploration of design aesthetics through 3D modelling and interactive application development.

Studio activities are supplemented by taught lecture and lab sessions to provide further support for developing the basic techniques and methodologies for the conceptualisation, design and development of interactive systems.

13. Description of Summative Assessment Methods:

Assessment Method	Description of Assessment Method	Weight %	Submission week (assignments)

Portfolio of Work	Studio Work Portfolio	100	Portfolio of work developed over duration of Studio, submission in week 27
13.1 Please describe the Summative Assessment arrangements:			
Students will be given a series of practical project briefs for individual and small group work, under tutor guidance. Work will be assessed through a combination of student presentations, process journals and/or written reports, and tutor evaluations of finished coursework.			

14. Description of Formative Assessment Methods:
Engagement with formative assessment is a mandatory requirement. Verbal feedback is given at tutorials. Verbal and written feedback is given at regular project and portfolio reviews, and through peer review.
14.1 Please describe the Formative Assessment arrangements:
Immersive systems tutorials are given weekly throughout the course.
Interim and final project reviews are arranged for each project, with peer review encouraged at interim evaluations.
Portfolio reviews will be conducted mid-way through the academic session.

15. Learning and Teaching Methods:	
Formal Contact Hours	Notional Learning Hours
80	400
15.1 Description of Teaching and Learning Methods:	
<p>Hackathon/GameJam</p> <p>A Hackathon or GameJam is an event in which computer programmers and other developers collaborate intensively on a project to a set brief or theme intensively for a set period of time (e.g. 24 or 48 hours).</p> <p>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.</p> <p>Timetable</p> <p>The course schedule will normally be arranged as follows:</p> <p>Lectures will take place on Mondays to introduce each project</p> <p>Tutorials, workshops and supervised studio sessions will be scheduled on Tuesdays, Thursdays and Fridays to provide support and feedback on progress, with regular weekly reviews on Thursdays or Fridays.</p>	

16. Pre-requisites:
N/A

17. Can this course be taken by Exchange/Study Abroad students?	Yes
18. Are all the students on the course taught wholly by distance learning?	No
19. Does this course represent a work placement or a year of study abroad?	No
20. Is this course collaborative with any other institutions?	No

20.1 If yes, then please enter the names of the other teaching institutions:

N/A

21. Additional Relevant Information:

N/A

22. Indicative Bibliography:

Possible texts and support sources include:

Anon, n.d., *Lynda.com*, <http://lynda.com>

Anon 2015. *C# Fundamentals: Development for Absolute Beginners (Channel 9)*. [online] Channel 9. Available at: <<https://channel9.msdn.com/Series/C-Sharp-Fundamentals-Development-for-Absolute-Beginners>> [Accessed 6 Jul. 2015].

Gibson, J., 2014. *Introduction to Game Design, Prototyping, and Development: From Concept to Playable Game - with Unity and C#*. 1 edition ed. Upper Saddle River, NJ: Addison Wesley.

Koster, R., 2013. *Theory of Fun for Game Design*. 2 edition ed. O'Reilly Media.

Hocking, J., 2015. *Unity in Action: Multiplatform Game Development in C# with Unity 5*. 1 edition ed. Shelter Island, NY: Manning Publications.

McEwen, A. and Cassimally, H., 2013. *Designing the Internet of Things*. John Wiley & Sons.

Miles, R., n.d. *The C# Programming Yellow Book*. <http://www.robmiles.com/c-yellow-book/>

Nisan, N. and Schocken, S., 2008. *Elements of Computing Systems: Building a Modern Computer from First Principles*. Cambridge, Mass.; London: MIT Press.

Richardson, M. and Wallace, S., 2014. *Make: Getting Started with Raspberry Pi: Electronic Projects with the Low-Cost Pocket-Sized Computer*. 2nd ed. Maker Media, Inc.

Rogers, Y., Sharp, H., Preece, J. 2011. *Interaction Design: Beyond Human - Computer Interaction* – Wiley.

For 3D Modelling, links to web based resources will be provided, e.g.:

Autodesk, n.d., Autodesk Knowledge Network, <https://knowledge.autodesk.com/>