

**Glasgow School of Art Course Specification**  
**Course Title: MSc Research Project**



Course Code	HECOS Code	Academic Session
PVIS301		2023-24

Course Title	MSc Research Project
Course Contact	Dr Daniel Livingstone

Credits	60
SCQF Level	11
When Taught	Semester 3

Associated Programmes	MSc Medical Visualisation and Human Anatomy MSc Heritage Visualisation MSc Serious Games and Virtual Reality
Lead School	School of Innovation and Technology
Other Schools	N/A
Date of Approval	Programme Approval March 2023

### Course Introduction

This course is intended to provide students with practical skills of creating, developing, delivering and communicating the outcomes of a research project of research in an area relating to their programme specialisation (e.g. Serious Games and/or Extended Reality, Heritage Visualisation, Medical Visualisation).

This is a supervised independent research project, with students responsible for determining their own project aims and objectives. Students will be expected to manage their own time on this substantial research project, typically completing both a practical element (most commonly a serious game, interactive 3D simulation or animation) and written dissertation in a form appropriate for the award of Master of Science.

All students will be expected to complete a research proposal prior to embarking on their research, and to complete an application for ethical approval. In particular, ethical approval is required before conducting any form of user, or other, research involving participants.

Many projects have previously led on to academic publication in conferences, journals and as book chapters, and for many students this project forms an important stepping stone towards a future academic career or doctoral research. For other students, the practical element provides opportunity to develop a capstone project demonstrating their skills and abilities as part of a professional portfolio of work.

### Course Aims

The aim of the course is to enable students to develop, manage and conduct an individual project of research in 3D visualisation or serious games or closely related topic appropriate for their chosen degree specialism (e.g. Serious Games & VR, Medical Visualisation & Human Anatomy, Heritage Visualisation)

Students will be provided an opportunity to demonstrate their practical and academic knowledge, skills and understanding in a significant self-directed programme of study, within which they will

need to select and apply appropriate methods and tools; analyse and evaluate outcomes; and articulate the process through both written work and presentation.

### **Course Intended Learning Outcomes**

By the end of this course students will be able to:

1. Demonstrate critical engagement with the academic literature in the chosen topic, appropriate to the programme specialism
2. Apply knowledge, skills and understanding to address complex issues systematically and creatively
3. Demonstrate independence and self-direction through the development and management of a significant research project, including associated practical component(s)
4. Demonstrate knowledge and understanding of research methods specific to their individual project of research
5. Demonstrate skills in communicating research through written and verbal forms through project dissertation and presentation.

### **Indicative Content**

Students will conduct and manage their individual projects of research under the guidance of their supervisors. A project is defined by a student with advice from an academic supervisor. The nature of the project will be a substantial investigation typically involving the analysis of a problem, creation of an application or the development of a system and an evaluation of the work completed.

Examples of previous projects have included projects that have looked at topics as diverse as:

- Combining papercraft and augmented reality in heritage visualisation
- The use of board games in disseminating information and advice for healthcare and wellbeing
- Exploring mixed reality interactions with physical objects in virtual reality
- Storytelling and emotional engagement in virtual reality
- Advanced visualisation of viruses in collaboration with virologists
- The impact of colour or lighting in 3D virtual spaces

Students are expected to apply appropriate research methods in the development and/or evaluation of projects – whether based on qualitative, quantitative or critical approaches – or some appropriate combination.

### **Description of Learning and Teaching Methods**

This is a self-directed project. Students are responsible for completing their own literature review, planning and completing any required development and evaluation activities, and preparing and submitting ethical approval applications.

Students should complete a project proposal prior to starting their project. Feedback will be provided on this, and regular meetings should be held with their project supervisor to discuss progress, obtain feedback on work complete, and for suggestions and guidance on next steps.

It is recommended that students meet with supervisors every two weeks for a progress meeting. Supervision meetings may vary in length according to need across the duration of each project.

Practical support in technical aspects of project work is also available to students over stage 3, through a mix of scheduled support sessions and by-appointment with tutors. The scheduled support sessions during stage 3 provide an additional opportunity for students to interact and engage with each other while working on their own independent projects.

By agreement with the Programme Leader, this course can be undertaken through distance or blended learning, with online supervision.

Indicative Contact Hours	Notional Learning Hours
12	600

#### Description of Formative Assessment and Feedback Methods

Formative feedback is through supervision meetings. Students will meet their supervisor regularly to discuss their progress. The supervisor will give advice and to help sort out problems with the project as they arise. Feedback will mainly be verbal, but may also include written feedback on progress and on student work/writing.

#### Description of Summative Assessment arrangements

For the MSc stage, assessment of student work will consist of two elements:

- A 5 to 10 minute video or recorded PowerPoint presentation reporting on their individual project of research, submitted online.
- Online submission of a practical project and 10,000-12,000 word dissertation including tables, illustrations, and footnotes. The dissertation must detail the design, implementation, evaluation of practical elements of the project, and management and findings of the project.

The percentage breakdown of the assessment will be as follows:

Presentation: 10% (assessing LO4)

Submission: 90% (assessing LO1-4)

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

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
Dissertation and project (10,000 to 12,000 word written dissertation and practical project.)	90%	Week 12
Presentation (A recorded five to ten minute presentation)	10%	Week 12

<b>Exchange/Study Abroad</b>	
<b>Can this course be taken by Exchange/Study Abroad students?</b>	No
<b>Are all the students on the course taught wholly by distance learning?</b>	No
<b>Does this course represent a work placement or a year of study abroad?</b>	No
<b>Is this course collaborative with any other institutions?</b>	Yes (MSc MedVis) No (MSc Heritage and MSc SGVR)
<b>If yes, then please provide the names of the other teaching institutions</b>	University of Glasgow (MSc Medical Visualisation and Human Anatomy only)

<b>Reading and On-line Resources</b>
<p>The specific readings relevant for each project will depend on the individual needs of the project. A useful resource list for conducting masters research can be found in the resource list for the Academic Skills for Masters Research course:  <a href="https://gsa.keylinks.org/#/list/541">https://gsa.keylinks.org/#/list/541</a></p>