

Glasgow School of Art Course Specification
Course Title: PDE MSc Final Project



Image: PDE MSc Final Project Show

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 Academic Year.

Course Code	HECOS Code	Academic Session
PPDE301 (UoG EXT5156P)	100050 100182	2026-27

Course Title	PDE MSc Final Project
Course Contact	Stuart Bailey

Credits	60
SCQF Level	11
When Taught	Semester 3

Associated Programmes	MSc in Product Design Engineering
Lead School	School of Design
Other Schools	James Watt School of Engineering, University of Glasgow
Date of Approval	Programme Approval September 2025

Course Introduction

This course comprises a self-initiated major project and technical report that develops the student's research and development methodologies, processes and skills to manage and deliver a self-directed studio project and technical report. The final submission is a combination of physical and digital artefacts that demonstrate and evidence the student's ability to integrate human-centred and engineering design development processes to deliver a resolved design outcome.

By reflecting upon their learning, skills and knowledge and drawing from the design and engineering courses in Stages 1 and 2, the project affords students an opportunity to critically evaluate research findings, to generate insights into the core issues presented by the project, and to synthesise conclusions and make informed design decisions. Framing their project proposal within a social, ecological and technological context enables students to demonstrate their ability to tackle challenging problems within complex people-product eco-systems and to apply appropriate technologies to deliver innovative solutions.

The body of work delivered through the project evidences the student's understanding of their role and responsibilities as a product design engineer to deliver ethical, inclusive and safe products and to clearly communicate the benefits delivered by the proposed product to diverse audiences. Projects are self-initiated and self-directed, supported by a PDE design tutor at GSA and a technical supervisor at the James Watt School of Engineering.

Course Aims

The aims of this course are to:

1. demonstrate autonomy and critical thinking in managing and delivering a self-directed major project that synthesises design and engineering methodologies.

2. develop and articulate a compelling product design engineering proposal, integrating human-centred design with appropriate materials and technologies to address complex sociotechnical challenges.
3. apply advanced research and development processes to generate insights, justify design decisions, and deliver innovative, ethical, and inclusive solutions
4. reflect on personal and professional development, engaging with social, ecological, technological, and legislative contexts relevant to contemporary design engineering practice.
5. communicate design outcomes effectively through diverse formats, including visual narratives, storytelling, and technical documentation, demonstrating proficiency in professional presentation and reporting.

Course Intended Learning Outcomes

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

1. critically justify a self-directed design project, synthesising insights from research to articulate a clear rationale and design intervention aligned with social, ecological, and technological contexts.
2. demonstrate autonomy and proficiency in managing a major design and engineering project, applying advanced methods and accountable decision-making throughout the development process.
3. integrate people-centred design with engineering principles, exploring and applying appropriate materials, technologies, and standards to deliver an innovative and resolved product concept.
4. communicate the design process and outcomes effectively, using visual design narratives, storytelling, and technical documentation tailored to diverse audiences and professional contexts.
5. reflect critically on the role and responsibilities of the product design engineer, evidencing ethical, inclusive, and sustainable design practice within complex people-product ecosystems.

Indicative Content

The course will introduce students to:

- managing their own learning with self-directed exploration and critical reflection
- creating concise arguments that justify the need for a design intervention based on evidence from research and insights generated through investigation of a relevant topic
- synthesising human-centred design needs and requirements with appropriate engineering, materials and technology

- realising and testing ideas through prototyping
- identifying relevant ethical considerations
- conforming to international standards and intellectual property
- identifying their areas of interest and practice in the professional field
- methods of delivering a project, evidenced through a clearly communicated design process and justified through accountable decision-making

Description of Learning and Teaching Methods

This course is designed as a project-based course where students are required to identify and propose their own project proposals reflecting on personal areas of interest. Project briefs encourage an independent, tutor-supported approach that emphasises individual and in-depth self-directed study. Projects are self-initiated and self-directed, supported by a PDE design tutor at GSA and a technical supervisor at the James Watt School of Engineering.

A range of learning and teaching methods are used to support students to engage in an explorative and individual approach to learning. These can include:

- project proposal presentations
- interim and formative presentations
- Studio tutorials
- Individual tutorials
- peer review and peer learning, and in-person presentations
- reflection and self-evaluation

Skills, including analogue, digital, material and technical resources, are introduced through inductions, demonstrations, and workshops.

Independent learning skills will be developed and supported through guided activities and digital online learning resources available on Canvas.

Indicative Contact Hours	Notional Learning Hours
30	600

Description of Formative Assessment and Feedback Methods

Students are supported in their learning through a range of activities with staff and peers, such as workshops reviews and tutorials offering ongoing formative feedback as they progress through the course.

Ongoing formative feedback is provided from staff through group and individual tutorial discussion, instruction, workshops and presentation seminars. Formative reviews and feedback is also received from peers during group tutorials and presentations, supported by peers acting as tutorial buddies taking notes during feedback discussions. Presentations for formative assessment facilitate formative feedback and discussion with peers.

Continuous formative feedback offers students the opportunity to present the progress of their work to staff and or peers, receiving feedback to support the development and refinement of their work towards submission for summative assessment.

Description of Summative Assessment arrangements

Summative assessment is designed to support students to review, collate, and communicate work produced in response to project briefs and learning and teaching activities associated with the course. Submissions are assessed and moderated in line with the Code of Assessment.

The final submission is assessed on a portfolio of work evidencing: the design process employed clearly communicating the proposed design outcome; and the engineering decisions and technological considerations made during the project to resolve the design outcome. Students must undertake both components of the assessment, as described in the assessment brief provided within the Canvas course. The final mark is aggregated from the combined components.

The portfolio of work submitted is assessed on the student's application of design and engineering principles, research, design methods and tools as evidenced through the Major Project Design Portfolio (75%) and the Technical Report (25%), with students expected to pass both components of the assessment.

- **Major Project Design Portfolio: (75%)**

The design project is assessed through the Major Project Design Portfolio that includes the physical and digital artefacts and workings within the project. This portfolio of work evidences the research, product development and technical investigation carried out and includes for example, but is not limited to: 2D, 3D and 4D work represented by sketches, diagrams, illustrations and storyboards; sketch models and prototypes; videos and animations.

The Design Process Journal summarises the process represented by the project portfolio, reflecting on research insights, rationale and justification for the project and presents the final design outcome. The Design Process journal should be delivered as a 10-page A3 landscape format PDF document.

The 5-minute video presentation supports the portfolio submission by effectively communicating the design process and outcomes in their own voice. The video provides students with the opportunity to rehearse and edit their presentation to best represent their project proposal in their own words.

- **Technical Report: (25%)**

The Technical Report is assessed by James Watt School of Engineering technical supervisors and demonstrates technical depth, integration of design and engineering, and application of appropriate materials, technologies and standards.

As per University of Glasgow School of Engineering guidelines, the technical report should contain a concise record of work, data reduction and concise writing as essential engineering skills. The technical report should be up to 30 pages (A4).

The Design Portfolio and Technical Report are moderated internally and the grades aggregated.

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
Technical Report (assessed at University of Glasgow)	25	Week 10, Sem 3
Major Project Design Portfolio	75	Week 12, Sem 3

Exchange/Study Abroad	
Can this course be taken by Exchange/Study Abroad students?	No
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?	Yes
If yes, then please provide the names of the other teaching institutions	James Watt School of Engineering, University of Glasgow

Reading and On-line Resources
The course indicative reading and online resource list is accessible via Resource Lists . Tutors and peers will provide further recommendations appropriate to student's chosen area of research and focus.