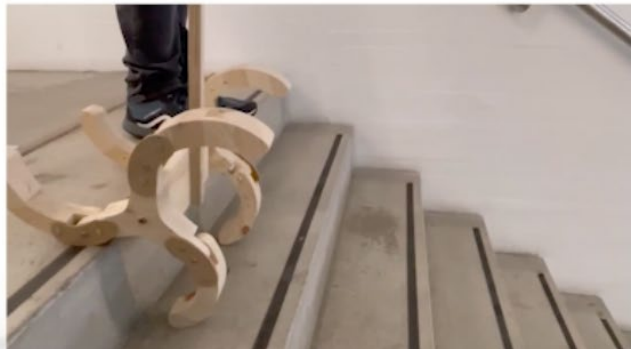
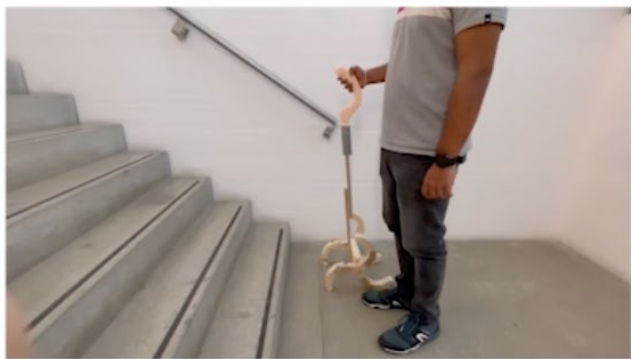


**Glasgow School of Art Course Specification
Course Title: PDE Research Methods & Design Strategies**



Image: EMBRACE walking climbing aid



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 |
|-------------|----------------------------|------------------|
| | 100050 100052 100962 | 2026-27 |

| | |
|-----------------------|---|
| Course Title | PDE Research Methods & Design Strategies |
| Course Contact | Stuart Bailey |

| | |
|--------------------|-------------------|
| Credits | 30 |
| SCQF Level | 11 |
| When Taught | Semester 1 |

| | |
|------------------------------|--|
| Associated Programmes | MSc in Product Design Engineering |
| Lead School | School of Design |
| Other Schools | |
| Date of Approval | Programme Approval September 2025 |

Course Introduction

The PDE Research Methods & Design Strategies course is a research-based, practice-led course that places people and planet at the centre of the design process. During this course, students learn to apply design research methods and strategies appropriate to product design engineering to identify and develop appropriate design opportunities. Integrating design with technology through a circular design strategy, students will realise a product design engineering concept proposition in a sustainable and ethical manner that references relevant UN Sustainable Development Goals (SDGs) and Circular Economy principles.

The course introduces advanced people-centred design research methods, including autoethnography, design ethnography, collaborative design, and research ethics. Students critically investigate a chosen theme to define and justify a design opportunity, articulating its purpose, beneficiaries, and impact. Strategies integrating design with technological research are applied to evaluate how identified needs can be addressed through feasible and ethical design solutions. Students develop and apply practical skills by translating research into practice, supported by design narrative tools to communicate their research and design process to a diverse audience.

The course is delivered through a blend of workshops, tutorials, lectures, and seminars that inform and support the design project. Students are introduced to practical design skills and strategies for realising a product design engineering outcome through ideation, visual design narratives and storytelling techniques, prototyping, evaluation and testing to develop and deliver a preferred design outcome. The project design outcome justifies and validates the design proposition by evidencing the design process and decisions made along the way through a design process journal, prototype and presentation.

Course Aims

The aims of this course are to:

1. acquire an understanding of product design engineering design by critically evaluating and employing people-centred design research methods alongside technological research strategies
2. introduce analytical methods and tools developed from design and engineering research methods to inform high-quality design decisions and identify preferred design directions
3. develop design narrative tools that enable students to effectively communicate and share design research, analyse and evaluate a range of design ideas, identifying design opportunities
4. enhance practical design skills and development strategies through collaborative and individual work in studio and the 3D making workshops
5. formulate strategies to synthesise ideas and technology that realise identified design opportunities, delivering a responsible and circular design proposition to benefit people and planet
6. critically reflect on the influences and responsibilities of design practice and the designer's role, emphasising how ethical and sustainable ideas can be embodied within designed products

Course Intended Learning Outcomes

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

1. critically evaluate and apply advanced people-centred design research methods (e.g. autoethnography, design ethnography, collaborative design) to investigate complex design themes and identify responsible design opportunities.
2. integrate design and technological research strategies to generate insights and justify strategic design directions that respond to human needs and align with circular economy and UN SDG principles.
3. demonstrate advanced practical design skills through iterative ideation, prototyping, testing, and evaluation, evidencing the development of a product design engineering concept.
4. communicate research and design processes effectively using design narrative tools such as storytelling, sketching, scenario building, and visual mapping, tailored to diverse audiences.
5. critically reflect on the ethical, professional, and sustainable responsibilities of the designer, articulating the intended impact of the design proposition on people and planet.
6. synthesise research findings and design decisions into a coherent and well-justified design

proposition, evidencing collaboration, shared decision-making, and responsible innovation.

Indicative Content

The course will introduce students to:

- applying a range of people-centred design research methods to investigate a research topic or theme, identifying design requirements and generating insights that inform design opportunities
- visual mapping of research and design process to identify, develop, and communicate design propositions, evaluating people-centred design outcomes with an appropriate application of technology and engineering
- communication to diverse audiences through design narrative tools such as visual storytelling, concept scenarios, storyboarding, and role-play
- developing practical knowledge and skills while applying research and theory to practice and making
- concept generation and prototyping methods and tools to facilitate exploration and development of ideas through design, build and test, e.g. paper and sketch modelling in 3D, digital prototypes, role-play and video-prototyping
- evaluating and assessing design decisions against design requirements and criteria to validate decisions and justify the direction leading to a product design specification
- identifying appropriate sustainable development goals and incorporating circular design principles within the proposed design opportunities
- preparing and communicating a product design concept proposal, evidencing the key evaluation techniques and decisions made throughout the design process journey that justify the proposed design outcome

Description of Learning and Teaching Methods

This course is designed as a project-based course. Project briefs encourage an independent, tutor-supported approach that emphasises individual and in-depth self-directed study.

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:

- design research methods and activities
- a design project
- Practical learning in 3D workshops
- Tutorials
- Seminars

- Lectures
- Interim and formative presentation and feedback
- Summative presentation and feedback

The studio fosters collaborative work and a space to develop the practical knowledge and skills while applying research and theory to practice and making. Studio discussions and critique will facilitate exploration, critical evaluation and analysis while allowing a space for self-reflection and development. Tutor contact will support group work as well as individual development through discussion and critiques.

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 | 300 |

Description of Formative Assessment and Feedback Methods

Students are supported in their learning through a range of workshop and tutorial activities with staff and peers that offer ongoing formative feedback as they progress through the course. Formative feedback is provided from staff through tutorial discussion, workshop instruction and presentation seminars, and from peers as tutorial buddies and peer feedback during group tutorials and presentations. 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.

For this course, the project submission is assessed on a portfolio of work evidencing the research methods and design strategies employed and clearly communicates the proposed product design engineering outcome.

The portfolio of work includes evidence of the research and design process strategies undertaken in the form of a design process journal and a product design engineering proposal that is submitted as a digital PDF document for assessment supported by a video presentation. The video presentation provides students with the opportunity to rehearse and edit their presentation to best represent their project proposal in their own words.

Both components are assessed against all ILOs. The journal supports depth of process and reflection and the proposal focuses on synthesis and communication, with the video presentation allowing students to articulate their design proposition in their own words, supporting professional communication skills.

Submissions are assessed and moderated in line with the Code of Assessment, which outlines reassessment opportunities where a student has not passed the course.

| Description of Summative Assessment Method | Weight % | Submission week |
|--|----------|------------------|
| Design Process Journal: A3 format journal documenting research findings, reference sources, ideation, decision-making, prototyping, and concept development. The journal visually maps the design process and evidences applied methods and strategies. | 60% | Week 13, Stage 1 |
| Product Design Engineering Proposal: A3 PDF (max 5 pages) summarising key insights and decisions from the journal. The proposal justifies the final design proposition and evaluates the strategies applied and is supported by a 5-minute video presentation. | 40% | Week 13, Stage 1 |

| 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? | No |
| If yes, then please provide the names of the other teaching institutions | |

| Reading and On-line Resources |
|---|
| The course indicative reading and online resource list is accessible via Resource Lists . This list will be reviewed and updated annually to reflect course content and subject developments. Tutors and peers will provide further recommendations appropriate to student's chosen area of research and focus. |