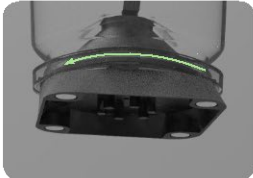


**Glasgow School of Art Course Specification
Course Title: PDE MSc Human Factors**

Product Redesign



Blade attachment locks onto blender vessel with a quarter turn. The square shape aligns with the square vessel bottom, subtly indicating locked/unlocked positions.

Magnets embedded in the appliance base align and lock the blender vessel in place.

Square blade attachment provides improved grip and communicates alignment to user

Flat top surface allows for easy cleaning of any drips or spills

Switch style is facilitated use with wet hands or by those with joint pain.

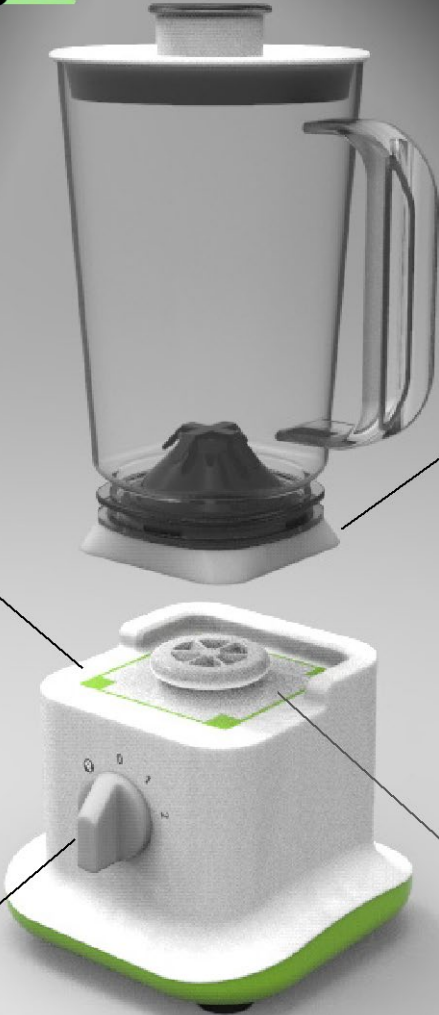


Image: Derek Vilim

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
PPDE206 (UoG EXT5157)	100050	
	100052	
	100182	

Course Title	PDE MSc Human Factors
Course Contact	Stuart Bailey

Credits	10
SCQF Level	11
When Taught	Semester 2

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

Course Introduction

This course introduces students to the science of ergonomics and anthropometrics within the context of human factors, to develop new practical skills in human-centred design that are grounded in psychological and aesthetic theories of interactions, semantics, and meaning.

During the course, students learn to apply human factors tools and methods to set-up and carry-out user tests and task analyses, observe and analyse people-product interactions, and make sense of their analysis with reference to anthropometric data and ergonomic principles. Students will develop a deeper understanding of the language and meaning conveyed through the experience of, and engagement with products. As a result, they will be better informed to redesign the products tested to improve understanding, interaction, and use for the purpose intended.

By engaging in the discussions and practical experiences, students become familiar with the fundamental principles of human factors and the ability to apply them in practice. Studio discussions and critique facilitate exploration, critical evaluation and analysis while allowing a space for self-reflection and development. Incorporating human factors within their designer's toolset, students develop a richer understanding of products beyond the look and feel of a product. They learn to design beyond the tangible and physical nature of products by being aware of and designing for psychological and intangible meanings and messages conveyed by the interaction space between people and products.

Course Aims

The aims of this course are to:

1. Critically apply ergonomic and anthropometric principles to analyse user-product interactions, demonstrating advanced understanding within product design engineering.

2. Design and conduct structured user testing, applying human factors methodologies to generate and interpret behavioural data in context, informing design decisions.
3. Evaluate product-user interactions through Gestalt and semantic theories, synthesising insights to enhance product meaning, usability, and user engagement.
4. Formulate and justify design improvements using human factors analysis, demonstrating autonomy in developing responsible, user-centred design propositions.

Course Intended Learning Outcomes

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

1. Critically evaluate ergonomic and anthropometric data to inform design decisions that enhance user-product interaction.
2. Design and implement user testing protocols, applying appropriate human factors methodologies to collect and interpret behavioural data in context.
3. Synthesise Gestalt and semantic theories to assess and improve the communicative and functional aspects of product design.
4. Independently formulate design improvements, using evidence-based human factors analysis to propose solutions that enhance usability, safety, and user satisfaction.

Indicative Content

The course will introduce students to:

- An overview of Human Factors and how it is related to human-centred design
- Ergonomics
- Anthropometrics
- Musculo-Skeletal Disorders
- Usability observations and analysis
- Task Analysis
- Design and meaning in products
- Gestalt Theory and Human Perception
- Aesthetics of proportion, functionality and form
- Semiotics and semantics in product design
- Preparing a formal Human Factors critique and analysis
- Preparing a Human Factors report

Description of Learning and Teaching Methods

This course is designed as a project-based course, supported and guided by lectures. 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:

- Lectures exploring a range of theories, methodologies and ideas within the discipline of Human Factors
- Practical application of theory, tools and methods, as discussed in the lectures, through a human factors project
- Group work, encouraging collaboration, discussion and peer learning and feedback.
- Tutorials
- Workshops
- Formative presentation and feedback
- Summative presentation and feedback

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
10	100

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.

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.

At an appropriate mid-point in the course, students engage in a formative presentation of the analysis and critique of Human Factors observations for verbal tutor and peer review and feedback.

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.

At the end of the course students submit an individual Human Factors report of 2,000 – 3,000 (maximum) words with illustrations that include evidence of user engagement, usability testing, physical prototypes, design concepts and engagement with user focus groups.

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
Human Factors Report	100	10

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.