Glasgow School of Art Course Specification
Course Title: Product Design Engineering 4B

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:
UoG EXT4090P		2023-24

1. Course Title:
Product Design Engineering 4B

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

5. Credits:	6. SCQF Level:	7. Course Leader:
60	10	Nick Bell

8. Associated Programmes:
BEng/MEng Product Design Engineering

9. When Taught:
Semester 1 & 2

10. Course Aims:
Aim – General

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- By the end of Level 4B, you will be expected to have developed the knowledge and skill base acquired during the previous levels, and to have achieved the learning outcomes sufficiently to undertake self-directed studio project/s and University study. This will potentially be involving degree of external professional collaboration.

Aims – Specific
- To develop the ability to undertake and manage a studio-based, human-centred design project, including the design, engineering, development, testing, evaluation and prototyping of an appropriate product, to a proficient and professional level, based on a self-selected market opportunity.
- To develop the ability to work in an effective, confident and autonomous manner.
- To develop confidence and proficiency in all aspects of the practical and reflective design process to a level where these skills can be transferred to a commercial/ professional working situation.
- To demonstrate an ability of produce a summary of a year-long project that follows a specific
- format and addresses key requirements.

11. Intended Learning Outcomes of Course:
In addition to the 3P's (Product, Process and Presentation) listed in the Programme Specification, students will be reviewed or assessed on the work, as presented in their project documentation, that evidences level of engagement with and the quality of achievement of the intended learning outcomes for PDE4 listed here.

- Apply the design process to a range of design problems addressing user needs and technical
- requirements.
- Carry out focused research and investigations.
- Design products that support a user experience within a social context.
- Apply a range of engineering knowledge and technical skills to resolve a design problem in a real
- situation.
- Design and evaluate concepts and take through to a final detailed design.
- Competently manage a project over an extended period of time and effectively manage
- relationships and communication with project collaborators.
- Present and communicate design project clearly and concisely through the appropriate

12. Indicative Content:
The final PDE studio project is student directed and negotiated with staff at the Glasgow School of Art and University of Glasgow. The studio design journal accounts for 75% of the grade, the remaining 25% is for the Technical Report. The final year studio can be described in 4 phases:

Discovery: Investigation and Understanding

Definition: Concept Development

Develop: Final Concept Detail Design

Deliver: Final Concept Design Implementation

These phases are critical delivery points that are the main focus of the final project.

13. Description of Summative Assessment Methods:			
The main aspects of Summative assessment are: written assignments, practical projects,			
Assessment Method	**Description of Assessment Method**	**Weight %**	**Submission week (assignments)**
Studio Project Design Journal	Portfolio of research, product development and technical investigation	75%	End of Semester 2 - teaching
Technical Report	Written Technical report that focuses on key technical challenges	25%	End of Semester 2 - teaching
13.1 Please describe the Summative Assessment arrangements:			

The completed Product Design Engineering 4B project outcome and Technical Report will form the basis for the summative assessment. The final grade will submitted to the University of Glasgow, James Watt, School of Engineering Exam Board.

14. Description of Formative Assessment Methods:

Engagement with formative assessment is a mandatory requirement.
Student and peer feedback are offered throughout project with detailed feedback provided after interim presentation. The main areas of student engagement are: seminars, critiques, workshops, tutorials

14.1 Please describe the Formative Assessment arrangements:

After most assessment events, studio staff provide feedback. The purpose of this is to help students understand areas of strength and weakness and provide advice for future direction or further learning.

Feedback for PDE4B will consist of verbal comments made during studio critique or presentation, or one-to-one in the studio. Main assessment events will be followed-up by written feedback, accompanied by a tutorial discussion with studio staff.

15. Learning and Teaching Methods:

Formal Contact Hours	Notional Learning Hours
50	600

15.1 Description of Teaching and Learning Methods:

Group Critique

Timetable: Days of delivery depend on semester timetable. Tutorial days are every second Friday.

16. Pre-requisites:

PDE3

17. Can this course be taken by Exchange/Study Abroad students?	No
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?	Yes
20.1 If yes, then please enter the names of the other teaching institutions:	
Glasgow School of Art & University of Glasgow	

21. Additional Relevant Information:

N/A

22. Indicative Bibliography:

Beukers, A & van Hinte, E Lightness, the inevitable renaissance of
minimum energy structures
Manzini, Ezio The Material of Invention
Flusser,Vilem The Shape of Things, A Philosophy of Design

Thackara, John Design After Modernism
Thackara, John In the Bubble: Designing in a Complex World