

## **Engineering Tripos Part IA, Product Design, 2022-23**

### **Coordinator**

[Prof. N Crilly](#) [1]

### **Lecturer**

[Prof. N Crilly](#) [1]

### **Timing and Structure**

8 lectures, 2 lectures per week, weeks 5-8 Lent term. The last one or two lectures might be used for discussion. Lectures will be recorded.

### **Aims**

The aims of the course are to:

- Instil an appreciation of engineering design
- Introduce a basic systematic design process

### **Objectives**

As specific objectives, by the end of the course students should be able to:

- Define a problem statement for a simple engineering product
- Specify a requirements list
- Analyse the functional requirements of the product
- Generate and evaluate suitable design concepts
- Embody the design concept with attention to key design principles
- Consider the needs of different people who must interact with the product
- Present a design solution in the form of sketches and drawings
- Communicate the design process clearly to others

### **Content**

- 1. The context, nature and challenges of design**
- 2. The design process**
- 3. Task clarification**
- 4. Conceptual design**
- 5. Embodiment design**
- 6. Designing for people**
- 7. Design representations**

### **Booklists**

Please refer to the Booklist for Part IA Courses for references to this module, this can be found on the associated Moodle course.

### Examination Guidelines

Please refer to [Form & conduct of the examinations](#) [2].

Last modified: 24/05/2023 10:25

**Source URL (modified on 24-05-23):** <https://teaching22-23.eng.cam.ac.uk/content/engineering-tripos-part-ia-product-design-2022-23>

### Links

[1] <mailto:nc266@cam.ac.uk>

[2] <https://teaching22-23.eng.cam.ac.uk/content/form-conduct-examinations>