Engineering Tripos Part IA, The Engineer in Society, 2022-23

Module Leader and Lecturer

Professor Tim Minshall [1]

Timing and Structure

Eight 50-minute presentations by module leader and guest speakers from industry.

Aims

The aims of the course are to:

- Introduce students to the economic, social and industrial context within which engineers work.
- Seek to provide a sense of the 'bigger picture' within which any engineering-related organisation operates.
- Show why an understanding of this context is important and to raise awareness of the non-technical competences that engineers need to develop in order to be successful.

Objectives

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

- Appreciate the economic, social and industrial contexts of engineering.
- Understand how these contexts influence engineering decisions.
- Produce a non-technical report on topics related to these contexts.

Content

- 1. Introduction What do engineers actually do?
- 2. Why things need to change
- 3. Why managing change is really difficult
- 4. How you can make things better
- 5. How to make difficult decisions
- 6. How to solve really big/difficult problems (Part 1)
- 7. How to solve really big/difficult problems (Part 2)
- 8. How you can engineer change to make the world a better place and pass this module

Assessment

To complete the Engineer in Society module you must write a report of approximately 1000 (+/- 10%) words over the Christmas vacation.

You will be given the title and further instructions for this report in the final lecture of this module.

The report must be submitted by 16:00 on Friday 20th January 2023 via the Moodle website for this module.

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Each lecture / guest speaker slot will provide you with content to help you prepare your report.

The aim of this task is to give you experience in preparing a professional response to non-technical questions – something that you will be required to do throughout your career.

Readings

On-line resources for this module will be provided via Moodle.

Examples papers

Please see the **Booklist for Part IA Courses** [2] for references for this module.

Examination Guidelines

Please refer to Form & conduct of the examinations [3].

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Links

- [1] mailto:thwm100@cam.ac.uk
- [2] https://www.vle.cam.ac.uk/mod/book/view.php?id=364071&chapterid=42051
- [3] https://teaching22-23.eng.cam.ac.uk/content/form-conduct-examinations