

Engineering Tripos Part IA, The Engineer in Society, 2023-24

Module Leader and Lecturer

[Professor Tim Minshall](#) [1]

Timing and Structure

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

Aims

The aims of the course are to:

- Introduce students to the changing economic, social, ethical, and environmental contexts within which engineers work.
- Provide a sense of the 'bigger picture' within which any engineering-related organisation operates, including issues of risk and security.
- Show why an understanding of this ever-changing 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 changing economic, social, ethical, and environmental contexts within which engineers work.
- Understand how these changing contexts influence engineering decisions.
- Produce a non-technical report on topics related to these contexts.

Content

1. Introduction - What do engineers actually do?
2. How is the world is changing for engineers?
3. Your world is manufactured – is that a problem?
4. How do you make change happen?
5. How do you make tough choices?
6. How do you access the resources you need?
7. How do we cope with rapid change ... like AI/ML?
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 19th January 2024 via the Moodle website for this

module.

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://teaching.eng.cam.ac.uk/content/form-conduct-examinations>