

Engineering Tripos Part IA, Drawing, 2019-20

Lecturers

[Dr Richard Roebuck \(Mich.\)](#), [Dr Nathan Crilly \(Lent\)](#) [1]

Timing and Structure

A single lecture will introduce each term's course. Michaelmas: Four 2-hour lab sessions available for help desk support with three exercises to be assessed in these sessions. Lent: Five self-paced workbooks with two scheduled mark up sessions.

Aims

The aims of the course are to:

- Understand the role of engineering drawing in design, communication and production.
- Learn how to interpret different types of engineering drawings.
- Learn how to produce different types of engineering drawings (and select the appropriate type).

Objectives

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

- Use a professional CAD package to create models of engineering components and assemblies.
- Demonstrate the knowledge and skills required to read and produce engineering drawings.

Content

The IA Drawing course runs in the first two terms. The Michaelmas term focusses on learning the basic operation of a professional CAD package. The Lent term focusses on learning and applying the principles and practices that underpin engineering drawing.

Michaelmas Term (CAD)

- Parts
- Assemblies
- Drawings
- Project data management
- Revolves
- Sweeps
- Patterns
- Surfaces
- Sheet metal
- Weldments
- Animation

Lent Term (Engineering Drawing)

- Orthographic projections

- Isometric drawing
- Auxiliary views
- Sectioning
- Dimensioning

Further notes

There is a [moodle](#) [2] page supporting the course.

Booklists

Please see the [Booklist for Part IA Courses](#) [3] for references for this module.

Examination Guidelines

Please refer to [Form & conduct of the examinations](#) [4].

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Links

[1] <mailto:rlr20@cam.ac.uk>, nc266@cam.ac.uk

[2] <https://www.vle.cam.ac.uk/course/view.php?id=69741#section-2>

[3] <https://www.vle.cam.ac.uk/mod/book/view.php?id=364071&chapterid=42071>

[4] <https://teaching19-20.eng.cam.ac.uk/content/form-conduct-examinations>