

Engineering Tripos Part IIB, 4D16: Construction Management (shared with IIA), 2018-19

Leader

[Dr P B Heffernan](#) [1]

Lecturers

Dr P B Heffernan and Prof C R Middleton

Timing and Structure

Lent term - 16 lectures, including 1 examples class (note: available to 3rd year students as a Shared Module in Part IIA). Assessment 100% exam

Aims

The aims of the course are to:

- familiarize students with concepts and methods used to manage construction projects and companies
- cover legal, safety and health matters relevant to construction
- cover risk management generally, so far as is possible in time allocated

Objectives

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

- have a broad understanding of how construction projects are initiated and driven forward
- appreciate the roles and responsibilities of the various professionals involved in design and construction
- understand the basics of production management techniques
- understand the key issues in managing a construction business
- have some knowledge of the regulations covering construction
- have some knowledge of forms of contract and of law relevant to construction
- appreciate the importance of health and safety in construction and the related regulations and if risk management generally
- understand something of costing and financial aspects of construction
- have experience of critical study of at least one construction project

Content

This module aims to familiarize students with concepts and methods used to manage construction projects and companies. These include methods for planning operations; improving productivity; controlling budgets, cash flow, and costs; safety; procurement; contracting law; preparing tenders and bidding; company organization and structure; and risk planning.

Booklists

Please see the [Booklist for Group D Courses](#) [2] for references for this module.

Examination Guidelines

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

UK-SPEC

The [UK Standard for Professional Engineering Competence \(UK-SPEC\)](#) [4] describes the requirements that have to be met in order to become a Chartered Engineer, and gives examples of ways of doing this.

UK-SPEC is published by the Engineering Council on behalf of the UK engineering profession. The standard has been developed, and is regularly updated, by panels representing professional engineering institutions, employers and engineering educators. Of particular relevance here is the '[Accreditation of Higher Education Programmes](#)' ([AHEP](#)) document [5] which sets out the standard for degree accreditation.

The [Output Standards Matrices](#) [6] indicate where each of the Output Criteria as specified in the AHEP 3rd edition document is addressed within the Engineering and Manufacturing Engineering Triposes.

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Links

[1] <mailto:pbh24@cam.ac.uk>

[2] <https://www.vle.cam.ac.uk/mod/book/view.php?id=364101&chapterid=52261>

[3] <http://teaching.eng.cam.ac.uk/content/form-conduct-examinations>

[4] <http://www.engc.org.uk/ukspec.aspx>

[5] <http://www.engc.org.uk/standards-guidance/standards/accreditation-of-higher-education-programmes-ahep/>

[6] <http://teaching.eng.cam.ac.uk/content/output-standards-matrices>