



PARTNERS ACADEMIC SUMMER SCHOOL 2024

Syllabus for Maths For Engineering: Civil Engineering

Subject Area

This syllabus is for PARTNERS applicants seeking to progress to the degrees of:

- H200, BEng Hons Civil Engineering
 - H205, BEng Civil Engineering with Yr in Indust
 - H206, BEng Civil & Struct Engineer with Yr Ind
 - H210, BEng Hon Civil & Struc Eng
 - H242, MEng Hons Civil & Struc Eng
 - H290, MEng Hons Civil Engineering
 - H295, MEng Civil Engineer with Yr in Industry
 - H296, MEng Civ & Structure Engin with Yr Indus
 - H292, MEng Civil & Surveying Engineering
 - H202, BEng Civil & Surveying Engineering
 - H208, BEng Civil & Surveying Engineering with Year in Industry
 - H249, BSc Surveying and Mapping Science with Year in Industry
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Aims

To allow students to demonstrate their potential to succeed in specified degree programmes by showing a grasp of entry-level subject-specific knowledge, understanding, cognitive and subject-specific skills.

Learning Outcomes

A good knowledge and understanding of ...

- Principles and practice of surveying
- Structural Design
- Decarbonising Transport
- Water and Soil Interactions
- Waste Water Treatment
- Climate Change and Flood Risk

The ability to apply this knowledge and critical understanding to...

- Practical civil engineering tasks set in the context of built and natural environment monitoring and measurement.

- Collect and record accurate, precise geospatial and laboratory data.
- Analyse and present data in a manner commensurable with undergraduate study and, by extension, the workplace.
- Describe and discuss the relevance of the skills and tasks to the civil and structural engineering industry and geomatics industries.

Competence in...

- Experimental design, data collection, interpretation, analysis and display.
- Team working.

Summer School Syllabus

- Please see timetable

Activities for Personal Study

Extra activities will be listed on Canvas.

Online Teaching:

Monday 1st , Tuesday 2nd July

On-Campus Teaching:

Wednesday 3rd (PM), Thursday 4th & Friday 5th July

Formative Assessment Details

Water treatment design, short report produced in groups outlining laboratory results and how this guides the design of a water treatment system. It will involve data analysis, scale-up calculations and an assessment of the importance of different design criteria to influence engineering choices.

Hand-in Method

Digital

Assessment deadline

Friday 12th July