



PARTNERS ACADEMIC SUMMER SCHOOL 2026

Syllabus for Civil Engineering & Geosciences

Subject Area

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

- H200 BEng Hons Civil Engineering
 - H210 BEng Hons Civil and Structural Engineering
 - H242 MEng Hons Civil and Structural Engineering
 - H290 MEng Hons Civil Engineering
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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...

- The use of levelling equipment and levelling procedures, as well as booking methodologies.
 - Experimental design, data collection, interpretation, analysis and display.
 - Team working
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Summer School Syllabus

The students will engage through the multiples sub-disciplines of civil engineering during the two days of on-campus activities, including structure and geomatics, water resources, transportations and environmental engineering.

The teaching will be focused on hands-on activities that will include a short introduction and field and laboratory experimentation to experiment a wide variety of settings, and learn of the main areas of knowledge and skills our civil engineers achieve during their time at Newcastle University.

The students will interact with multiple members of staff including academics, laboratory technicians and students, that will guide them during their planned activities.

Specific information for the different activities will be available on Canvas before the start of the week.

Activities for Personal Study

Students will be provided with reading and post-Class activities to complete during the Summer School. Reading will be provided via the Library Reading List feature within Canvas; exercise will be posted on Canvas before the Summer School commences.

On-Campus Teaching:

Wednesday 1st (PM), Thursday 2nd & Friday 3rd (AM only) July

Online Teaching:

Monday 29th & Tuesday 30th June

Formative Assessment Details

A short answers report and short numerical questions
More details will be given during the event by your Academic Strand Lead.

Hand-in Method

Digital

Assessment deadline

Friday 3rd July, 6pm