What is Civil Engineering?

Civil engineering is a professional engineering discipline that deals with the design, construction and maintenance of the physical and naturally built environment. Civil engineers design and build the bridges, roads, railways, airports, tunnels, canals, dams, offshore structures and buildings, and provide the infrastructure for the supply of clean water and sustainable energy. One of the biggest challenges is to make buildings sustainable by working creatively with architects, and that is why we are part of a joint Department of Architecture and Civil Engineering.

Why study Civil Engineering at Bath?

Joint Department of Architecture and Civil Engineering, unique in the UK

For the last 50 years the Department of Architecture and Civil Engineering at the University of Bath has been educating architects and engineers to work together in order to produce buildings and civil engineering structures of the highest quality. We are uniquely placed to educate our students in all facets of civil engineering design. Today’s engineers require a broad range of skills encompassing sciences, humanities and arts. It is this breadth, and the positive links between theory and practice, that characterise Civil Engineering at Bath.

Excellent reputation for teaching and research

Teaching and research quality is recognised as nationally and internationally leading across the Department and all lecturers are actively involved in research. Much of this research feeds directly into the undergraduate teaching, conveying the excitement of the most recent developments in Civil Engineering. Our students, have access to excellent laboratory facilities for work on structures, hydraulics, soils and natural building materials as well as a timber workshop, extensive design studios, and an outdoor test facility. The facilities are managed by a supportive team of technicians and postgraduate researchers who are on hand to support students in setting up and running laboratory tests. As well as the core academic staff, we have nearly a hundred visiting tutors from practice, who help in studios during design projects, give one-off lectures and seminars and participate in critiquing students’ design work.

Close student community

The Department has an annual intake of about 90 students, making for a close-knit working environment where staff and students quickly get to know each other. Each student is allocated a personal tutor, available to discuss personal or academic matters in confidence. Our tutors take a keen interest in the welfare and academic progression of their tutees through to graduation day, and often keep in contact through their subsequent careers. There is a strong sense of working together to a common purpose, and a significant number of students remain in the Department as postgraduate researchers.
Design studio project experience

Fundamental to the ethos of the Department is the premise that exemplary, meaningful and enduring building design is the result of effective collaboration between architects and engineers. The design projects enable the knowledge developed in lectures and laboratory work to be applied and reinforced in realistic design situations. Architecture and Civil Engineering students work together on group design projects throughout their studies. Collaborative projects are developed through drawings, models and calculations. Developing this working relationship mirrors the real-world relationship between the two disciplines, giving Bath students a sophisticated and well-rounded approach to apply in their future careers. Our students learn from and influence each other, exploring aspects that the other may not have considered, and pushing the boundaries of their design project work.

Programmes

The Department offers the following three programmes of study:

**MEng in Civil and Architectural Engineering:** Alongside core civil engineering subjects, the integration of structural design and building environmental systems in buildings is a major focus of this programme. Students cover the full range of technologies including building environmental engineering. Graduates should have an exceptional ability to work creatively with other professions in the design of buildings and major structures.

**MEng in Civil Engineering:** This more conventional civil engineering programme provides graduates with an ability to work creatively with other professions in the design of civil engineering related projects, as well as buildings and structures. There are numerous optional units, allowing students to customise their education within the breadth of civil engineering.

These MEng programmes are accredited as fully satisfying the educational base to become a Chartered Engineer (CEng).

**BEng in Civil Engineering:** This programme follows the same structure as the MEng for three years of study and provides an excellent basis to move onto a specialist MSc programme immediately after completion. Such a programme of accredited Further Learning will be required to complete the educational base for Chartered Engineer accreditation status.

Entry requirements

A typical offer would be A*A at UK A level including Maths, or 36 points in the International Baccalaureate with 6 in Higher Level Maths. We also consider equivalent grades in overseas qualifications. For full details visit our online prospectus.
Course structure

The three programmes have the same course structure in years one and two, covering the core foundations of civil engineering study. The first semester of year one is studied joint with architecture students, providing all students with a broad understanding of the essential principles of design and realisation. A student may transfer between the three programmes, subject to performance, until the end of the second year of study.

Teaching in the Department is mainly through lectures, tutorials, laboratories and fieldwork, with substantial design projects carried out in purpose-built studios. All degree programmes contain a suitable assessment mix of examinations, project work and course work.

### Civil Engineering/Civil and Architectural Engineering degree structure

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<td>Joint semester with architecture students</td>
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<td>Geology</td>
<td>Design Studio</td>
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<td>Building Environment</td>
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<td><strong>Year 3</strong></td>
<td><strong>Optional Industrial Placement (12 months)</strong></td>
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<tr>
<td>Dissertation</td>
<td>Compulsory &amp; optional units including:</td>
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<tr>
<td>Civil Engineering Hydraulics</td>
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<tr>
<td>Structures</td>
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<td>Structural Design and Construction</td>
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Specialist masters level course at Bath or another university

MEng Civil Engineering

MEng Civil Engineering

www.bath.ac.uk/ace
Industrial placement opportunities

An optional placement year after the first two years of study enables students to gain valuable experience with a variety of civil engineering companies at the forefront of engineering design. A placement may involve working on a construction site as a site engineer for a contractor, working in a design office of a consulting engineering practice or a mixture of the two. This industrial experience is recognised as counting towards the postgraduate training required for gaining Chartered Engineer status.

We have a dedicated Faculty placements team to guide both students and employers through all stages of the placement process, whether in the U.K. or overseas. Our students opting for overseas opportunities have successfully obtained placements worldwide. During the placement period, our team make regular contact with students and employers to gather feedback, monitor progress and ensure student wellbeing. Many of our established placement companies sponsor students, and offer graduate employment to students following their placement. Practices currently supporting our students include:

- Arup
- Balfour Beatty
- Buro Happold
- HR Wallingford
- National Grid

Excellent career prospects

80-90% of our graduates go directly onto work in the civil engineering profession, with the remainder going into related employment or further academic study. We believe this is because our graduates are creative civil engineers with a profound technical understanding across the breadth of civil engineering, able to lead projects informed by a holistic outlook on design. The increasing sophistication of building technologies means that all major projects are designed by teams, and teamwork is a skill which Bath graduates develop throughout their course.

Civil engineers earn between £20,000 and £80,000 per year. Graduate salaries are likely to start around £20,000 and increase as experience and professional qualifications are gained. Typical jobs for our Civil Engineering graduates have included:

- Balfour Beatty - Civil Engineer
- Laing O’Rourke - Civil Engineer
- Integral Engineering Design - Structural Engineer
- Expedition Engineering - Structural Engineer
- Imperial College London - Research Engineer
- Pisco Sin Fronteras - Project Leader Construction.

Typical jobs for Civil and Architectural Engineering graduates have included:

- Arup - Structural Engineer
- Atkins - Structural Engineer
- Ramboll – Structural Engineer
- Atelier Ten - Architectural Engineer
- Buro Happold - Research Engineer
- Keir Construction - Project Manager.

For more information contact:

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www.bath.ac.uk/ace