Civil Engineering
Undergraduate Degrees 2018
The School of Civil Engineering is globally renowned for its teaching, research and engagement with industry and government. We’re one of the largest and longest established civil engineering schools in the UK, with just over 650 students from over 70 countries studying with us.

Civil engineering is one of the most diverse professions available. As a civil engineer, you will become involved in a wide range of activities, including planning, designing, constructing, maintaining, improving and managing the physical environment around us. You may help design transport systems, undertake the treatment and restoration of contaminated sites, enhance the energy efficiency of buildings, or design and construct iconic structures.

OUR REPUTATION
We’re ranked third in the UK for Civil Engineering in the Guardian university league tables 2018 and we achieved 94% overall student satisfaction in the 2016 National Student Survey (NSS).

According to the Research Excellence Framework 2014, we’re second in the UK for the power of our research.

In recognition of our strong and continued commitment to gender equality, we have received a prestigious Athena SWAN Silver Award.

This is awarded by the Equality Challenge Unit, the national body that promotes equality in the higher education sector.

“Our degrees are accredited by the Joint Board of Moderators of the relevant professional bodies, including the Institution of Civil Engineers and the Institution of Structural Engineers. Accreditation is vital if you want to become a chartered engineer after graduation.”

Professor Philip Purnell, Professor of Materials and Structures and Director of Admissions

OUR DEGREES:
ARCHITECTURAL ENGINEERING
ARCHITECTURE
CIVIL AND ENVIRONMENTAL ENGINEERING
CIVIL AND STRUCTURAL ENGINEERING
CIVIL ENGINEERING WITH PROJECT MANAGEMENT
CIVIL ENGINEERING WITH TRANSPORT

To view all undergraduate degrees offered by the Faculty of Engineering visit engineering.leeds.ac.uk
Learning and teaching

Our research power, and the funding it attracts, means we’re able to invest in world-class facilities and teaching staff who are actively engaged in cutting-edge research. As a result, you’ll be taught by internationally renowned academics working at the forefront of their fields – academics who share your passion for the subject.

You will benefit from our integrated style of learning and teaching through a variety of methods, including laboratory classes, project work and fieldwork. Working in ‘real-life’ situations will help broaden your experience and will expose you to a wide range of problems and influences. Fieldwork ranges from the survey field course in your first year and the construction site field course in the third year, to fieldwork associated with many of the projects in the third and fourth years.

INDUSTRY-RELEVANT COURSES
The School has an active Industrial Advisory Committee, which enhances the links between the School and our industrial partners and helps to ensure that our courses are up to date with the modern practices and techniques that will enable you to succeed in industry upon graduation.

Five of our degrees are accredited by the Joint Board of Moderators of The Institution of Structural Engineers, Institute of Highway Engineers, The Chartered Institution of Highways and Transportation, and the Institution of Civil Engineers under licence from the UK regulator, the Engineering Council. Our Civil Engineering with Transport degree will be accredited once the first cohort of students have graduated.

FLEXIBLE DEGREES
Our courses share a common first year. This means you have the freedom to switch programmes up until the end of your second year. You have the option of extending your studies by taking an industrial placement year. If you’re on the MEng (with the exception of Architecture) you can also choose to spend the third year at one of our specially selected partner universities overseas.

All our courses have a modular structure where you will be required to study 120 credits per year. A standard module is typically worth 20 credits.

INTEGRATED MASTERS
All our courses are Integrated Masters (MEng, BEng) degrees, providing you with great breadth and depth of study.

If you study for four years, you can graduate with an MEng – the preferred engineering qualification, which fulfils the academic requirements en route to Chartered Engineer status. This course offers you the opportunity to work on a wider range of projects with a high level of industrial involvement. Should you wish to graduate early, you may decide at any point until the middle of the third year to graduate after three years with a BEng.

If you are sure from the start that you only want to study for three years, it is also possible to apply for the BEng version of our courses. The BEng is identical to the first three years of the MEng course and has the same entry requirements.
HANDS-ON LEARNING
Civil engineers work on projects that combine skills and knowledge to deliver a solution to a client. That's why we place a strong emphasis on project work throughout your degree.

Integrated design projects run in each year of the programmes and you'll be able to apply your knowledge to diverse project briefs spanning a range of civil engineering scenarios. Sometimes working alone and at other times in groups, these projects will help you to see civil engineering from a broader perspective.

YEARS ONE AND TWO
In your first year you'll undertake research into the social, technical and environmental challenges of the problem, with the aim of producing a range of options that deal with the risks. You'll develop one of your options further to produce an outline proposal for an engineering solution.

In your second year you'll design a steel-framed and reinforced concrete-framed building structure. You'll be given the brief of a theoretical site plan of a certain shape and size and it's your job to design a building to fit on the site. You'll scheme up your design, which will be vetted by firms of local consulting engineers.

YEAR THREE
In your third-year integrated design project, you'll be given a real-life engineering problem and will be tasked with providing a recommended solution to this problem, usually a structure such as a bridge.

You'll also carry out an individual research project supervised by School staff. The individual tuition guiding you through your independent study will help you to develop important analytical skills held in high demand by employers.

YEAR FOUR
If you continue to the MEng you will carry out both an individual research project as well as the final integrated design project, which is usually a project suggested by one of our industrial partners that is going to be built in the near future.

Examples or recent design projects include:
- the design of a nuclear power plant infrastructure
- an iconic steel bridge in the UK countryside which embraces the surrounding area
- a new landmark in the skyline of The City of London – a 300m tall skyscraper.

FACILITIES
You will have access to excellent teaching facilities including laboratories, a drawing office, design studio and teaching space, supplemented by extensive computing equipment. Specialist facilities, including laboratory space for structures, materials, public health engineering, building services and geotechnics, provide a creative and stimulating learning environment. The Faculty of Engineering is continually investing in the best facilities for you, and you will find everything you need for your studies right here on campus.

STUDENT SUPPORT
Our personal tutorial system will provide academic and pastoral support. You will have a designated personal tutor throughout your studies at Leeds. He or she will be an academic member of staff: you will have weekly academic tutorials with your tutor throughout your first year, in your tutor group (of typically five students), as well as one-to-one meetings twice per semester.

We have an excellent Student Support team, located close to where you will work and study, who will help you with anything, from academic advice and guidance, online module enrolment and registration, timetabling, results and progression requirements to coursework/project submission enquiries and what to do if you miss work through illness.

The web-based student portal will enable you to access the University’s student services and information, while our Virtual Learning Environment (VLE) will allow you access to your personal timetables, course materials, academic and social groups, and much more.
Careers and employability

A degree from the University of Leeds and the wider experience you’ll gain while you’re studying here will help you stand out from the crowd and secure that all-important graduate job.

REWARDING CAREERS
96% of our recent graduates have successfully secured a professional or managerial role within six months of graduating (DLHE). Our graduates find positions as civil engineers, waste management consultants, project engineers, performance analysts, structural engineers, environmental advisors, architectural engineers, transport consultants and road design engineers.

Civil engineering roles attract excellent salaries. According to the Institution of Civil Engineers’ most recent salary survey, the basic starting salary for new civil engineering graduates was £23,500. On average, the income for the under 25s was £24,841 and for those aged 25 to 29 stood at £29,064.

CAREERS SUPPORT
Throughout your time with us, our award-winning Faculty Employability team is here to support, guide and advise you. In addition to specialist face-to-face meetings, you’ll benefit from:
• timetabled employability sessions
• ongoing support to find internships and placements
• presentations and workshops delivered by employers
• careers guidance appointments.

Our Employability team also organises an annual Careers Fair, which will give you the opportunity to meet over 100 engineering recruiters to gain an insight into graduate jobs and to explore placement and internship opportunities.

STRONG INDUSTRIAL LINKS
The School of Civil Engineering has close links with some of the top graduate recruiters in the field. These include Mott MacDonald, AECOM, SKM Consulting, Yorkshire Water, Laing O’Rourke, Arup, Carillion, Atkins, Costain, Balfour Beatty, WSP and Ramboll UK, to name a few. This is one of many reasons why our graduates are highly sought after by employers.

Our staff work with numerous companies on wide-ranging research and consultancy projects. We also organise industrial visits and offer additional seminars delivered by practising engineers and other professionals, giving you direct contact with industry and potential employers from the beginning.

INDUSTRIAL PLACEMENT YEAR
An industrial placement year is a great way to help you decide what kind of career you might like when you graduate. As well as giving you the opportunity to develop your own skills, you’ll gain a real insight into working life in a particular company or sector.

All our degrees allow you to undertake a placement year alongside your degree (either in the third year of the BEng or the third or fourth year of the MEng).

If you decide to undertake a placement year, this will extend your degree by 12 months. On successfully completing your placement year, you will be awarded the ‘industrial’ variant in your degree title to demonstrate your unique expertise to future employers.

engineering.leeds.ac.uk/civil
96% OF OUR GRADUATES HAVE SUCCESSFULLY SECURED A PROFESSIONAL OR MANAGERIAL ROLE WITHIN SIX MONTHS OF GRADUATION

STUDY ABROAD
One of the most rewarding aspects of our civil engineering courses is that you’ll have the option of taking an integrated study abroad year, enabling you to experience another culture while making friends and having fun. This will involve you spending the third year of your MEng at one of our specially selected partner universities overseas, with the exception of architecture. You’ll study modules similar to those taught at Leeds. This means your year abroad will be incorporated within your degree and you won’t have to extend the length of your degree.

When you return to the University after your overseas experience, you’ll have a new perspective on life for your final year and you’ll also be awarded the ‘international’ variant in your degree title.

I am undertaking a year in industry with Mott MacDonald Bentley, working on Yorkshire Water contracts, focused mainly on the water sector, primarily reservoirs.

I take the role of a project leader and designer, where my day-to-day responsibilities include project coordination and civil design. All of my schemes require working on historical assets, which are critical for reservoir safety. One scheme in particular involves the investigation of 55 reservoir valve towers across Yorkshire with a scheme value of more than £500,000.

This year has given me the opportunity to be part of real-life projects that have an impact on critical infrastructure. I have gained a lot of varied practical experience that has expanded the knowledge I have acquired in the first two years of my degree. I have enjoyed this placement very much and would recommend a year in industry to everyone.

MEERABEN MISTRY
MEng Architectural Engineering (International)

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MEng Architectural Engineering (International)

Gabrielle Hawkins
MEng, BEng Civil and Structural Engineering

I spent nine months at Drexel University in Philadelphia and thoroughly enjoyed the experience. It made me more open-minded about new challenges and my confidence in approaching new people and making friends has definitely improved too.

I would recommend study abroad to anyone, as it is a great opportunity to go and explore and put yourself out there in the world. It’s the perfect opportunity to combine studying and meeting new people from different cultures."

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Architectural Engineering (MEng, BEng)

Leeds was the first university in the UK to offer an architectural engineering degree some 50 years ago. This course is truly interdisciplinary, designed to produce engineers who can design buildings by integrating the principles and practice of architecture, building physics and structural engineering. This is reinforced by our strong involvement with research and practice, with creative design issues being explored in practical, real-world project settings.

Architectural Engineering is accredited by the Joint Board of Moderators, which will help you to gain Chartered Engineer status after graduation.

STUDY ABROAD
If you choose to spend a year abroad, you will spend the third year of the MEng at a university in the USA, for example Drexel University in Philadelphia, to give you a different cultural perspective on your studies.

HANDS-ON LEARNING
This course places a great deal of emphasis on developing the knowledge and skills that are essential for the creation of modern, energy-efficient buildings. All years focus on design through studio-based projects, which involve group-based and individual design activity.

Projects typically involve building designs based at local sites to reflect the challenging context that you will face in practice. They include elements of site analysis, precedent study, concept and proof of concept design that build on your understanding of the fundamental principles of engineering and architecture. The projects involve scale model building, graphical presentations, sketching and computational modelling.

The majority of the work will be carried out in a design studio-based environment. Lectures and small-group tutorials will be supplemented by guidance provided by practising engineers and architects. Recent projects have involved the design of multistorey office buildings, a community library, a sixth form college, sporting facilities, an art gallery, auditoria, conference facilities and a research centre.

The best aspect of the course was doing the design projects, as it was a chance to be creative with the use of my own ideas. It also helped me understand the theory learnt from lectures, where I could apply the maths to a building I have designed myself. The support from my tutor was brilliant and really helped me to get a good degree overall.

After graduating, I started working at AKT II, a structural engineering firm based in London. I was thrown straight into a team and started working on real projects. My job is different every day but involves tasks like designing by hand calculations and analysis software, producing sketches, writing reports and checking drawings."

APRIL SHACKLEY
MEng Architectural Engineering
Design Engineer at AKT II
This unique degree integrates creative and technical knowledge in architecture, structural and building services engineering.

Focusing on studio-based architectural design projects, you’ll gain a critical understanding of how science, the arts and society are brought together through creative building design projects. You’ll develop a scientific and creative approach to building design, supported by learning in architectural history and theory, urban design, structures, construction, materials and building physics.

The first years of the programme develop your mastery of fundamental principles of design, cultural context, materials and structure. Working in the studio individually and in small teams, you will apply your learning in these areas to creative, open-ended design projects. You will also develop your skills in drawing, model making and industry-standard software tools.

As you progress through each year, the complexity and sophistication of these building design projects will increase, in line with your abilities. Your third year includes a study trip to a European city, linking together a design studio and urban studies module. In the fourth year, your architecture design projects will be linked to research-focused modules in architectural history and theory, building physics and the context of the construction industry in architectural management, practice and law.

By this point, you will have shown the ability to: critically analyse sites and precedents, develop building briefs, develop theoretical, conceptual and formal strategies for building designs, and demonstrate your technical understanding of construction, structures and building physics.

This course is a four-year degree. If you choose to finish after three years, you will graduate with a BEng in Architectural Engineering.

**INDUSTRIAL PLACEMENT YEAR**

You can also choose to undertake an industrial placement year on this degree, which will extend your studies by 12 months. Your placement will meet the compulsory requirements set by the Royal Institute of British Architects (RIBA).

On successful completion, you will be awarded the ‘industrial’ variant in your degree title to demonstrate your added experience to future employers.

**REWARDING CAREERS**

Architecture graduates are in great demand from multidisciplinary consultancies specialising in building design and contractors engaged in building construction and project management.

Our Employability team will provide you with specialist face-to-face support and advice to help you find relevant work experience, internships and year-in-industry placements, as well as graduate positions.

**ACCREDITATION**

This course is accredited by the Joint Board of Moderators (JBM) of The Institution of Structural Engineers, Institute of Highway Engineers, The Chartered Institution of Highways and Transportation, and the Institution of Civil Engineers under licence from the UK regulator, the Engineering Council.

This course has also been designed to meet the Architects Registration Board’s (ARB) requirements for Part 1 prescription.

An application for the course to become a prescribed course has been made and is awaiting approval. Until then, graduates wishing to progress towards registration as an architect will have to undertake further study to gain ARB Part I.
## Modules

### Year 1

- Architecture and Environment
- Engineering Surveying and Construction Technology
- Structural Design and Analysis
- Properties of Materials: Water, Soil, Steel and Timber
- Engineering Mathematics and Modelling 1
- Integrated Design Project 1 (including Design Studio 1)

### Year 2

- Structural Design 1
- Architectural History and Theory 2
- Civil Engineering Materials II
- Structural Analysis 1
- Water Engineering and Geotechnics
- Engineering Mathematics and Modelling 2
- Building Physics 1: Fundamental Principles
- Design Studio 2

### Year 3

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<th>Architectural Engineering (International)</th>
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| Year abroad for students undertaking the international variant. This option isn’t available to students undertaking the BEng. | Compulsory modules:  
- Structural Design 2  
- Architectural History and Theory 3  
- Structural Analysis 2  
- Water Engineering  
- Foundation Engineering Fundamentals  
- Building Physics 2: Services Design  
- Design Studio 3.2  
| Optional modules:  
- Construction Site Fieldcourse  
- Transport Engineering II  
- Introduction to Railway Engineering and Planning  
- Wastewater Engineering  
- Environmental Health Engineering in Developing Countries  
- Computational Methods for Civil Engineering  
- Engineering Geology |  
- Structural Design 2  
- Architectural History and Theory 3  
- Structural Analysis 2  
- Foundation Engineering Fundamentals  
- Building Physics 2: Services Design  
- Architectural Engineering  
- Design Studio 3.1 (Concept Design)  
- Architectural Engineering Design Studio 3.2 |

### Year 4

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- Architectural History and Theory 4  
- Management, Practice, and Law  
- Building Physics 3  
- Design Studio 4.1  
- Design Studio 4.2  
|  
- Architectural History and Theory 4  
- Management, Practice, and Law  
- Building Physics 3  
- Architectural Engineering Design Studio 4.1 (Concept)  
- Architectural Engineering Design Studio 4.2 (Proof of Concept) |
Civil and Environmental Engineering
(MEng, BEng)

From safe drinking water to recycling systems, civil and environmental engineers make a massive impact on the world we live in and our quality of life. This course is concerned with the use of infrastructure, buildings and technology to protect the environment and public health.

You’ll gain a firm grounding across the breadth of civil engineering, with a deeper focus as you progress in areas of civil and environmental engineering that impact both human health and the natural environment. You’ll benefit from our world-leading expertise in areas such as public health engineering and solid waste management (including water supply, wastewater treatment, circular economy, resources recovery from waste, contaminated land and pollution control), energy use in buildings and construction, and transport engineering and planning.

The course was designed to respond to critically important developments in the profession, such as dealing with the circular economy, contaminated sites, interactions between buildings and the environment in which they are built and operated, and the health of the people who use them.

HANDS-ON LEARNING
Recent topics for integrated design projects have included the comparison of the environmental performance of steel and concrete structures, development of a rail line from Leeds Bradford International Airport over contaminated land, design of a geological disposal facility for intermediate-level nuclear waste, a flood alleviation scheme for the Calder Valley, and design of a wind farm for North Yorkshire.

Research project titles are varied. No two projects are ever the same and could involve modelling or laboratory investigation. Examples include examining wastewater treatment, the health effects of poor housing in the UK, energy from waste, sanitation and recycling in developing countries, energy-efficient building design, flood risk and management, and infection control in hospitals.

STUDY ABROAD
You can choose to spend the third year of the MEng at a university in Australia, Canada, Hong Kong, Singapore or the USA to experience engineering culture in other countries.

INDUSTRIAL PLACEMENT YEAR
You can also undertake a year-long industrial placement in the civil engineering sector to put your knowledge into practice and experience engineering in real life. If you don’t wish to extend your studies by a year, our Employability team will work with you to find summer placements in engineering organisations so you don’t miss out on valuable industrial experience.

REWARDING CAREERS
When you graduate, you are very likely to find employment in the core contracting and consulting arms of the UK’s £30bn per annum civil engineering industry. However, the technical, communication and management skills you will develop during your civil engineering and project management studies are also in particular demand, for example in international finance, investment banking and large-project management.

Recent graduates have secured positions including:
- Graduate Engineer, Arup
- Graduate Civil Engineer, Atkins
- Geotechnical Engineer, Golder Associates
- Project Coordinator, Lang O’Rourke
- Hydraulic Modeller, Mouchel
- Hydraulic Modeller, Mott MacDonald
- Marine Engineering Officer, Royal Navy
- Geo-Environmental Consultant, RSK Stats GeoConsult Ltd
- Digital Consultant, Ve Interactive.

“The best part of studying civil engineering is the breadth of skills we learn, from fluid mechanics to structural design.

We use a basis of mathematical knowledge to bring real situations and structures to life. At Leeds, we are encouraged to excel in all these areas whilst being given the opportunity to specialise and take part in forward-thinking research in the areas we enjoy the most.

CHARLOTTE HITCHENS
MEng Civil and Environmental Engineering
Civil and Structural Engineering (MEng, BEng)

From safe drinking water to transport systems, developing bridges to responding to natural disasters, civil engineers make a massive impact on the world we live in and our quality of life. This course lets you sample the whole breadth of civil engineering, with opportunities to specialise as you progress.

You’ll study all the major subjects that you need to master as a civil engineer, such as structures, fluids, geotechnics, materials, communications, environmental impact, surveying and mathematics. At the same time, you’ll link these areas by focusing on how they come together in the design of the infrastructure and buildings that underpin modern civilisation.

In the first two years you’ll gain a thorough understanding of the fundamental subjects that underpin civil engineering and the materials and methods available to civil engineers in different contexts.

You’ll benefit from a greater variety of optional modules in year three, allowing you to focus on topics such as transport, railway or public health engineering.

If you choose the MEng course, you’ll have an even wider selection of specialist optional modules, which are taught at Masters level and allow you to focus on topics that suit your interests and career plans. A final-year research project will allow you to work on a specific area in depth under the guidance of your supervisor.

STUDY ABROAD
You can choose to spend the third year of the MEng at an approved university in the EU (outside the UK) being taught in the local language. Alternatively, you may choose to spend your year abroad at an English language university overseas, for example in Hong Kong, Australia or North America, to give you a different cultural perspective on your studies.

INDUSTRIAL PLACEMENT YEAR
You can also undertake a year-long industrial placement in the civil engineering sector to put your knowledge into practice and experience engineering in real life. If you don’t wish to extend your studies by a year, our Employability team will work with you to find summer placements in engineering organisations so you don’t miss out on valuable industrial experience.

HANDS-ON LEARNING
Recent topics for integrated design projects have included the comparison of steel and concrete structures, the development of a rail line from Leeds Bradford International Airport, the design of a geological disposal facility for intermediate-level nuclear waste, a flood alleviation scheme for the Calder Valley and the design of a wind farm for North Yorkshire.

Research projects are incredibly varied – no two projects are ever the same – and might involve work on energy-efficient building design, low-income housing in developing countries, flooding resilience in Leeds, water and carbon footprinting of construction, or optimisation of steel and reinforced concrete structures. You will develop your project aims and objectives in consultation with your supervisor, taking responsibility for both the research and your own learning.
I worked in the Rail Solutions team at Atkins, the UK’s largest provider of railway infrastructure design and engineering. I worked on the Birmingham New Street Gateway Project – one of the most complex refurbishments of a train station in Europe. Atkins was the project lead and the construction phases of the £750m station were completed in 2015. A year in industry counts towards chartership and helps to tick off ICE Development Objectives that you can’t gain through your university course alone.”

GARETH ALLEN
MEng Civil and Structural Engineering (Industrial)
Industrial placement year at Atkins
Civil Engineering with Project Management
(MEng, BEng)

This course offers you a firm grounding across the breadth of civil engineering, with a focus on the unique project management challenges posed by major building and infrastructure development.

You’ll gain an understanding of the technologies and tools available to civil engineers and cover key topics in the Project Management Body of Knowledge (PMBoK). You’ll choose from optional modules to develop specialist knowledge in topics ranging from transport engineering to the design of structures in earthquake zones. But you’ll also gain an understanding of project management to prepare you for a wide range of careers.

In the first two years, you’ll gain an understanding of the materials and methods available to civil engineers in different contexts, as well as the basic principles of project management.

Year three involves a wider selection of optional modules, allowing you to gain specialist knowledge in fields such as building physics, railway and transport engineering. You will also cover management of time, cost and quality in projects.

If you take the MEng course, you’ll complete an independent research project and choose from Masters-level optional modules in geotechnical engineering, advanced steel and composite design, and advanced structural analysis. You’ll also take modules about managing risk, human resources and communications in projects.

HANDS-ON LEARNING
Recent topics for integrated design projects have included the comparison of steel and concrete structures, development of a rail line from Leeds Bradford International Airport, design of a geological disposal facility for intermediate-level nuclear waste, a flood alleviation scheme for the Calder Valley and design of a wind farm for North Yorkshire.

Research projects are incredibly varied – no two projects are ever the same – and might involve work on rail infrastructure management, material management on construction sites, whole-life asset management, or risk and uncertainty in projects. You will develop your project aims and objectives in consultation with your supervisor, taking responsibility for both the research and your own learning.

STUDY ABROAD
If you choose to spend a year abroad you will spend the third year in Australia, Canada, Hong Kong, Singapore or the USA to experience engineering culture in other countries.

INDUSTRIAL PLACEMENT YEAR
You can also undertake a year-long industrial placement in the civil engineering sector to put your knowledge into practice and experience engineering in real life. If you don’t wish to extend your studies by a year, our unique full-time Employability team will work with you to find summer placements in engineering organisations so you don’t miss out on valuable industrial experience.

REWARDING CAREERS
When you graduate, you are very likely to find employment in the core contracting and consulting arms of the UK’s £30bn per annum civil engineering industry. However, the technical, communication and management skills you will develop during your civil engineering and project management studies are also in particular demand, for example in international finance, investment banking and large-project management.

Recent graduates have secured positions including:
• Graduate Engineer, Arup
• Structural Engineer, Atkins
• Pipeline Engineer, BP
• Project Manager, BP
• Officer, British Army
• Graduate Accountant, Deloitte
• Graduate Engineer, Highways Agency
• Assistant Project Manager, Hyder Consulting
• Site Engineer, Laing O’Rourke
• Graduate Civil Engineer, Mott MacDonald
• Hydraulic Modeler, RAA Ltd.

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Transport is one of the key drivers for economic growth, with investment in transport infrastructure rising across all regions of the world. Our Civil Engineering with Transport degree has been designed to facilitate an increasing demand for civil and transport engineers in the UK and beyond.

The course begins with a firm grounding across the breadth of civil engineering. As it progresses, there is a deeper focus on areas of transport and highways engineering, as well as transport planning and modelling.

You will study all the major subjects that you need to master as a civil engineer, such as structures, fluids, geotechnics, materials, communications, environmental impact, surveying and mathematics. At the same time, you will link these subject areas to solve challenging civil engineering problems, in particular, focusing on the design of transport infrastructure and planning for sustainability and resilience of the system.

The course is taught by the School of Civil Engineering and the Institute for Transport Studies, meaning you’ll be taught by experts in their fields with extensive industrial experience.

**INDUSTRIAL PLACEMENT YEAR**

You can also undertake a year-long industrial placement in the civil engineering sector to put your knowledge into practice and experience engineering in real life. If you don’t wish to extend your studies by a year, our unique full-time Employability team will work with you to find summer placements in engineering organisations so you don’t miss out on valuable industrial experience.

**REWARDING CAREERS**

When you graduate, you are very likely to find employment in the core contracting and consulting arms of the civil and transport industry. However, the technical, communication and management skills you will develop during your studies are also in particular demand, for example in international finance, investment banking and management.

Many of our recent civil engineering graduates can be found working for the transport industry for companies such as AECOM, ARUP, Atkins, Capita, CH2M, Hyder, Jacobs, Mouchel, Mott MacDonald, Transport for London, TransPennine Express, WSP, and Parsons Brinckerhoff.

**RANKED THIRD IN THE UK FOR CIVIL ENGINEERING IN THE GUARDIAN UNIVERSITY LEAGUE TABLES 2018**
Modules

The first year of our civil engineering degrees share the same set of compulsory modules, and in years two, three and four you will undertake specialist modules according to your chosen degree. For full module descriptions please visit our website.

Year 1

Compulsory modules:

- Architecture and Environment
- Engineering Surveying and Construction Technology
- Structural Design and Analysis
- Properties of Materials: Water, Soil, Steel and Timber
- Engineering Mathematics and Modelling 1
- Integrated Design Project 1 (including Design Studio 1)

Year 2

Civil and Structural Engineering compulsory modules:

- Structural Design 1
- Civil Engineering Materials II
- Structural Analysis 1
- Water Engineering and Geotechnics
- Engineering Mathematics and Modelling 2
- Integrated Design Project 2

Civil Engineering with Project Management compulsory modules:

- Modules (left column), and:
  - Sustainable Engineering Solutions

Civil Engineering with Transport Compulsory modules:

- Specified modules (left column), and:
  - Introduction to Project Management

Optional modules:

- Sustainable Engineering Solutions
- Architectural History and Theory 2
- Transport Engineering and Planning I
- Building Physics 1: Fundamental Principles
- Introduction to Project Management

Year 3 – Year Abroad

If you choose to take a year abroad you will study modules similar to those taken at Leeds in year three. When you graduate you will have either 'International' or 'European' added to your degree title, demonstrating your unique experience to future employers.

The year abroad option is only available to students taking an MEng programme.

These are typical modules/components studied and may change from time to time.

engineering.leeds.ac.uk/civil
## Year 3

<table>
<thead>
<tr>
<th>Civil and Structural Engineering compulsory modules:</th>
<th>Civil and Environmental Engineering compulsory modules:</th>
<th>Civil Engineering with Project Management compulsory modules:</th>
<th>Civil Engineering with Transport compulsory modules:</th>
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<tbody>
<tr>
<td>• Structural Design 2</td>
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<td>• Structural Analysis 2</td>
<td>• Water Engineering</td>
<td>• Management of Time, Cost and Quality in Projects</td>
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<td>• Water Engineering</td>
<td>• Wastewater Engineering</td>
<td>• Water Engineering</td>
<td>• Foundation Engineering Fundamentals</td>
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<td>• Foundation Engineering Fundamentals</td>
<td>• Environmental Health Engineering in Developing Countries</td>
<td>• Foundation Engineering Fundamentals</td>
<td>• Multi-modal Interchange Planning and Design</td>
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<td>• Individual Research Project 1</td>
<td>• Foundation Engineering Fundamentals</td>
<td>• Individual Research Project 1</td>
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<td>• Integrated Design Project 3</td>
<td>• Individual Research Project 1</td>
<td>• Integrated Design Project 3</td>
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<td>• Transport Modelling</td>
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<tr>
<td>Optional modules:</td>
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<tr>
<td>• Construction Site Fieldcourse</td>
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<tr>
<td>• Architectural History and Theory 3</td>
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<td>• Transport Engineering II</td>
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<td>• Introduction to Railway Engineering and Planning</td>
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<td>• Structural Analysis 2</td>
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<td>• Building Physics 2: Services Design</td>
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<td>• Engineering Geology</td>
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<td>• Management of Time, Cost and Quality in Projects</td>
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<td>• Wastewater Engineering</td>
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<td>• Environmental Health Engineering in Developing Countries</td>
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<td>• Computational Methods for Civil Engineering</td>
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<td>• Railway Engineering</td>
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<tr>
<td>• Computational Modelling in Civil Engineering</td>
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</tbody>
</table>

## Optional modules:

- Construction Site Fieldcourse
- Architectural History and Theory 3
- Transport Engineering II
- Introduction to Railway Engineering and Planning
- Structural Analysis 2
- Building Physics 2: Services Design
- Engineering Geology
- Management of Time, Cost and Quality in Projects
- Wastewater Engineering
- Environmental Health Engineering in Developing Countries
- Computational Methods for Civil Engineering
- Railway Engineering
- Computational Modelling in Civil Engineering

## Year 4 (MEng)

<table>
<thead>
<tr>
<th>Civil and Structural Engineering compulsory modules:</th>
<th>Civil and Environmental Engineering compulsory modules:</th>
<th>Civil Engineering with Project Management compulsory modules:</th>
<th>Civil Engineering with Transport compulsory modules:</th>
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<tbody>
<tr>
<td>• Individual Research Project 2</td>
<td>• Individual Research Project 2</td>
<td>• Risk Management</td>
<td>• Individual Research Project 2</td>
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<tr>
<td>• Integrated Design Project 4</td>
<td>• Integrated Design Project 4</td>
<td>• Management of Human Resources and Communications in Projects</td>
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<td>• Individual Research Project 2</td>
<td>• Traffic Network Modelling</td>
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<td>• Integrated Design Project 3</td>
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<tr>
<td>Civil and Structural Engineering optional modules:</td>
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<tr>
<td>• Funding for Projects</td>
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<tr>
<td>• Design and Management of Structures in Earthquake Zones</td>
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<td>• Design Optimisation (MEng)</td>
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<td>• Advanced Concrete Design (MEng)</td>
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<tr>
<td>• Deterioration and Maintenance of Concrete Structures (MEng)</td>
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<td>• Solid Waste Management</td>
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<tr>
<td>• Advanced Steel and Composite Design</td>
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<td>• Strategic Management in Construction</td>
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<td>• Risk Management</td>
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<td>• Management of Human Resources and Communications in Projects</td>
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<td>• Water Resource Management</td>
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<tr>
<td>• Water Supply</td>
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<td>• Indoor and Urban Air Quality</td>
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<tr>
<td>• Groundwater Pollution and Contaminated Land</td>
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<tr>
<td>• Engineering in Emergencies (MEng)</td>
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<tr>
<td>• Geotechnical Engineering</td>
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<td>• Environmental Microbiology</td>
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<tr>
<td>• Advanced Structural Analysis</td>
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<tr>
<td>• Circular Economy and Resource Recovery from Waste</td>
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<tr>
<td>• Deterioration and Maintenance of Pavements</td>
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</tbody>
</table>

## Civil and Environmental Engineering optional modules:

- Natural Wastewater Treatment and Reuse
- Water Resources Management and Supply
- Solid Waste Management
- Engineering in Emergencies (MEng)

## Civil Engineering with Project Management optional modules:

- Advanced Steel and Composite Design
- Geotechnical Engineering
- Advanced Structural Analysis

## Civil Engineering with Transport optional modules:

- Funding for Projects
- Road Safety Management
### Entry requirements and how to apply

#### Degree title | UCAS code | Duration (years) | A-level | BTEC Extended Diploma
---|---|---|---|---
MEng, BEng Architectural Engineering | HK21 | 3/4 | AAA, including Mathematics, and excluding General Studies or Critical Thinking. | D*D*D* with distinctions in all Mathematics units plus an interview and diagnostic Maths test. Extended Project Qualification: we recognise the value, effort and enthusiasm applicants make in the Extended Project, and where an applicant offers an A in the EPQ we may make an offer of AAB at A-level (any required subjects such as Mathematics must still be at grade A). Mathematics units must usually include Further Maths and/or other appropriate maths units. Some may be optional on your BTEC but are required by the Faculty. Please contact us for further information.
BEng Architectural Engineering | HK26 | 3 | | |
MEng, BEng Architecture | K1H2 | 4 | | |
MEng, BEng Civil and Environmental Engineering | H291 | 3/4 | | |
BEng Civil and Environmental Engineering | H296 | 3 | | |
MEng, BEng Civil and Structural Engineering | H200 | 3/4 | | |
BEng Civil and Structural Engineering | H205 | 3 | | |
MEng, BEng Civil Engineering with Project Management | H2N2 | 3/4 | | |
BEng Civil Engineering with Project Management | H2N7 | 3 | | |
MEng, BEng Civil Engineering with Transport | H202 | 3/4 | | |
BEng Civil Engineering with Transport | H201 | 3 | | |

*Where an A-level science subject is taken, we require a pass in the practical science element, alongside the achievement of the A-level at the stated grade.*

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**IF YOU CHOOSE TO UNDERTAKE A PLACEMENT YEAR, THIS WILL EXTEND YOUR STUDIES BY 12 MONTHS**

**EQUIVALENT QUALIFICATIONS**

We welcome students with a wide range of qualifications and these are listed on our website: [engineering.leeds.ac.uk/civil/ug-equivalents](http://engineering.leeds.ac.uk/civil/ug-equivalents)

All applicants must be studying Mathematics at level 3. For most students, this requirement is fulfilled by achieving the required grade in A-level Maths. Applicants for whom this requirement is to be fulfilled via qualifications other than A-levels (e.g., BTEC Maths and Additional/Further Maths modules) may be required to take a diagnostic Maths test in addition to their other level 3 maths studies. This is to ensure a suitable level of mathematical literacy.

**ENGLISH LANGUAGE REQUIREMENTS**

GCSE English Language grade C (or above) or an equivalent recognised English language qualification, e.g., IELTS 6.0 overall with no less than 5.5 in each section.

**ACCESS TO LEEDS**

The University of Leeds has a policy of welcoming applicants from non-traditional academic backgrounds. If you do not meet our entry criteria above, you may be eligible through the Access to Leeds scheme: [www.leeds.ac.uk/a2l](http://www.leeds.ac.uk/a2l)

**FOUNDATION COURSES**

If you do not have the formal qualifications for immediate entry to one of our degrees, you may be able to progress through a foundation year.

The University offers a one-year BSc Studies in Science designed to prepare students without a science background at A-level for study on one of our degrees in engineering.
We also offer an interdisciplinary Science Foundation Year for applicants who meet specific widening participation criteria.

www.ltc.leeds.ac.uk

INTERNATIONAL FOUNDATION YEAR IN ENGINEERING
Our International Foundation Year (IFY) is intended for international students who do not yet have the formal qualifications required for entry to year one of our degree courses.

internationalfoundationyear.leeds.ac.uk

LANGUAGE CENTRE
Our Language Centre provides the Academic English for Undergraduate Studies pre-sessional course, which is designed to help international students develop the necessary language and academic study skills for undergraduate study.

www.leeds.ac.uk/languages

HOW TO APPLY
All undergraduate applications should be made through the Universities and Colleges Admissions Service (UCAS). Full instructions on how to apply are available at www.ucas.com.

OFFER PROCESS
Suitable applicants will be invited to an applicant day, for which we strongly encourage attendance, as this gives you the opportunity to meet our students, academic and admissions staff, and find out more about your course. You will be given a tour of the School’s facilities, which includes our laboratories and design studios. There will also be the opportunity to attend a talk from our Employability team.

An interview with an academic will normally form part of this process. This will give you the chance to discuss your application in more detail, check that it’s the right course for you and your career plans, have your questions answered and find out more about studying at Leeds.

SCHOLARSHIPS
We offer a number of scholarships within the School. Please visit our website for further details.

engineering.leeds.ac.uk/civil/ug-scholarships

CONTACT US
If you require any further information prior to making a formal application, please contact our Undergraduate Admissions team.

School of Civil Engineering
University of Leeds
Leeds LS2 9JT, UK
tel: +44 (0)113 343 2262
email: ugcivil@leeds.ac.uk

FIND US ONLINE
To find out more about the University and the School of Civil Engineering visit:

engineering.leeds.ac.uk/civil

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