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Civil Engineering with Business Management BEng

Undergraduate degree course Civil Engineering with Business Management BEng, H2NC:

Civil Engineers (http://www.birmingham.ac.uk/schools/civil-engineering/index.aspx) play a pivotal role in shaping our future and are fundamental to all aspects of the built environment from the design and construction of iconic structures to the provision of underground services.

At Birmingham, our staff and students are working on a diverse range of projects. In fluid mechanics, we investigate topics ranging from the aerodynamics of cyclists/trains, to the flooding of rivers; current geotechnical engineering projects range from developing 'intelligent' tunnels to cleaning up contaminated land; and in structural engineering our students are designing a variety of structures to withstand extreme winds as well as investigating and implementing the sustainable construction technologies of tomorrow.

We have a strong design theme running through all of our degree courses which not only enables your creative abilities to grow but is highly prized by employers. Our unique facilities and excellent staff combine to ensure that you will be excellently placed to fulfil your ambitions.

Study here and find out why the University of Birmingham has been awarded The Times and The Sunday Times University of the Year 2013-14 (http://www.birmingham.ac.uk/news/latest/2013/09/20-sep-Birmingham-announced-as-University-of-the-Year.aspx)

Course fact file

UCAS code: H2NC

Duration: 3 years

Places Available: 43 (Total number of places for all Civil Engineering courses)

Applications in 2013: 412

Typical Offer: AAB (**More detailed entry requirements and the international qualifications accepted can be found in the course details (?OpenSection=EntryRequirements)**)

Start date: September

Related courses

Civil Engineering undergraduate degree courses (/schools/civil-engineering/undergraduate/index.aspx)

Contact

Undergraduate Admissions
Telephone enquiries: +44 (0)121 414 5043
Email: **uga-civeng@bham.ac.uk (mailto:uga-civeng@bham.ac.uk)**

School of Civil Engineering (/schools/civil-engineering/index.aspx)

Follow us on Twitter (http://twitter.com/eps_unibham)

Details

This is a three-year accredited course.

If you have a good grasp of maths and design and love to solve problems creatively, then this civil engineering degree will be an excellent choice for you. During this degree, you will be actively involved in developing the specific design and professional skills required by civil engineers and will tackle numerous design problems to develop your analytical, technical and decision-making abilities. You will study all the major areas of civil engineering, such as structural design and applications, fluid mechanics and water engineering, geotechnical engineering and construction project management. Mathematics is embedded into all our engineering subjects which enables the relevance of sometimes obscure mathematical concepts to be appreciated.

For the first two years of the degree, all of our undergraduates follow an integrated BEng or MEng route. Once you've finished your second year, you'll then choose whether to complete the BEng or go on to study for an MEng degree. Progression to the MEng will require excellent second year examination results.

This degree is ideally suited to international or UK students who want to complete their studies in 3 years. It is a flexible option that offers a quicker route to industry than a **4 year Meng (/undergraduate/courses/civil-engineering/civil-engineering-business-meng.aspx)** and can be topped up with a **1 year postgraduate masters (/schools/civil-engineering/postgraduate/taught-degrees.aspx)** at a later date, to qualify as a Chartered Engineer.

First year

We believe in developing the engineer in you, right from the first year. Our courses are designed to give you as many opportunities as possible to tackle problems. These take the form of design projects, which thread through our degree programmes. The design problems increase in complexity from the first year,where you will learn the importance of good conceptual design, until the third year, which sees you spending about half your time working on a real engineering problem provided by our industrial advisers.

At Birmingham, we develop your creativity and technical expertise from the first year and our courses are designed to apply the taught materials in design exercises. The teaching involves design projects, which thread through our degree programmes, increasing in complexity as the course continues.

Second year

You'll extend your technical understanding and learn how to apply your knowledge and creativity to solving engineering problems. You'll focus on designing real structures using concrete and steel and broaden your outlook by studying subjects such as ethics, disaster science or sustainability.

Third year

In your third year you'll solve real-world problems through challenging design projects, working in teams and on your own to engineer appropriate and creative design solutions.

Related links

- **Civil Engineering undergraduate degree courses (/schools/civil-engineering/undergraduate/index.aspx)**
- **Frequently asked questions (/schools/civil-engineering/undergraduate/faq.aspx)**

Why study this course

Your Birmingham degree is evidence of your ability to succeed in a demanding environment. Employers target Birmingham students for their drive, diversity, communication and problem-solving skills, their team-working abilities and cultural awareness, and our graduate employment statistics have continued to climb at a rate well above national trends. If you make the most of the wide range of services you will be able to develop your career from the moment you arrive.

In the School of Civil Engineering, we are dedicated to our specialist areas of engineering. When we are not teaching you, we will be found working with industry, either as advisers or research partners. We are fortunate to have links with more than 50 engineering companies and senior academics in the School advise governments on issues such as the sustainability of the Olympic Park, flooding of river basins and road management in developing countries. Our research informs our teaching, so you will be exposed to the latest developments in the industry and get to learn about current engineering projects from practicing engineers.

We involve industrial partners in developing and delivering our programmes and our partnership with the civil engineering industry will help you to become the self-motivated, employable engineer that the industry look for.

As an independent guarantee of quality, all our BEng, MEng and MSc degree programmes are accredited by the Institutions of Civil and Structural Engineers and the Chartered Institution of Highways and Transportation, and are compatible with the latest guidelines for professional engineering registration

If you would like to know more reasons why we believe your experience at Birmingham would be special, **please see 10 reasons to come to Birmingham (http://www.birmingham.ac.uk/schools/civil-engineering/about/index.aspx)** .

Modules

Stage I - BEng/MEng

Title	Credits	Semester
Modelling Concepts and Tools	20	1 & 2
Fluid Flow, Thermodynamics and Heat Transfer	20	1 & 2
Statics and Mechanics	20	1
Properties and Applications of Materials	10	1
Construction Design and Professional Skills B	10	2
Introduction to Financial Analysis	10	1
Business Organisation and Management	10	1
Introduction to Economics	10	2
International Economy	10	2

Stage II - BEng/MEng

Title	Credits	Semester

Structural Engineering	20	1 & 2
Floods and River Systems	20	1 & 2
Soil Mechanics and Geotechnical Engineering	20	1 & 2
Engineering Design	20	1 & 2
Financial Decision Making	10	1
Introduction to Marketing	10	1
Human Resources Management	10	2
Global Marketing	10	2

To progress to Stage III of the MEng, a student is required to have passed 220 credits in Stages I and II, and to have a Stage II average mark of at least 55%. Failing these criteria means a student progresses to a BEng.

Stage III (Year 3) - BEng/MEng Civil Engineering

Title	Credits	Semester
Civil Engineering Guided Study (BEng)	10	1 & 2
Civil Engineering Design Project	40	1 & 2
Structural Engineering Design	10	1
Geotechnical Engineering Applications	10	2
Foundation Engineering	10	1
Supply Chain Management	10	1
Corporate Finance	10	2
Strategic Management A + B	20	1 & 2

Please note: Optional modules include languages and modules from other Engineering disciplines, subject to timetabling constraints.

Programmes and options are revised each year to keep them up to date, so details may change.

Fees and funding

Standard fees (http://www.birmingham.ac.uk/students/ug/courses/fees/standard) apply
Learn more about **fees and funding (http://www.birmingham.ac.uk/students/ug/feesandfinance/loans.aspx)**

Scholarships
Please visit **Scholarships and awards - School of Civil Engineering (/schools/civil-engineering/undergraduate/scholarships/index.aspx)**

Entry requirements

Number of A levels required: 3

Typical offer: AAB

Required subjects and grades: A level Mathematics

General Studies: not accepted. Critical Thinking: not accepted. However, a good performance in one of these may be taken into account if you fail to meet the conditions of the offer

Additional information:

Other qualifications are considered – learn more about **entry requirements (http://www.birmingham.ac.uk/students/ug/requirements)**

International students:

International Baccalaureate Diploma: 35–36 points, including Mathematics and a Science at Higher level

Standard English language requirements apply
Learn more about **international entry requirements (http://www.birmingham.ac.uk/students/ug/requirements/international)**

Depending on your chosen course of study, you may also be interested in the Birmingham Foundation Academy, a specially structured programme for international students whose qualifications are not accepted for direct entry to UK universities. Further details can be found on the **foundation academy web pages (http://www.birmingham.ac.uk/students/foundation-academy/Pathways/index.aspx)** .

How to apply

Apply through UCAS at **www.ucas.com (http://www.ucas.com/)**
Learn more about **applying (http://www.birmingham.ac.uk/students/ug/courses/apply)**

Key Information Set (KIS)

Key Information Sets (KIS) are comparable sets of information about full- or part-time undergraduate courses and are designed to meet the information needs of prospective students.

All KIS information has been published on the Unistats website and can also be accessed via the small advert, or 'widget', below. On the **Unistats website (http://unistats.direct.gov.uk)** you are able to compare all the KIS data for each course with data for other courses.

The development of Key Information Sets (KIS) formed part of HEFCE's work to enhance the information that is available about higher education. They give you access to reliable and comparable information in order to help you make informed decisions about what and where to study.

The KIS contains information which prospective students have identified as useful, such as student satisfaction, graduate outcomes, learning and teaching activities, assessment methods, tuition fees and student finance, accommodation and professional accreditation.

Related links

Civil Engineering undergraduate degree courses (/schools/civil-engineering/undergraduate/index.aspx)

Studying Civil Engineering - frequently asked questions (/schools/civil-engineering/undergraduate/faq.aspx)

Scholarships and awards - School of Civil Engineering (/schools/civil-engineering/undergraduate/scholarships/index.aspx)

Learning and teaching

As a Birmingham student you are part of an academic elite and will learn from world-leading experts. At Birmingham we advocate an enquiry based learning approach, from the outset you will be encouraged to become an independent and self-motivated learner, qualities that are highly sought after by employers. We want you to be challenged and will encourage you to think for yourself.

Your learning will take place in a range of different settings, from scheduled teaching in lectures and small group tutorials, to self-study and peer group learning (for example preparing and delivering presentations with your classmates).

To begin with you may find this way of working challenging, but rest assured that we?ll enable you to make this transition. You will have access to a comprehensive support system that will assist and encourage you, including personal tutors and welfare tutors who can help with both academic and welfare issues, and a formal **transition review (https://intranet.birmingham.ac.uk/student/transitionreview/index.aspx)** during your first year to check on your progress and offer you help for any particular areas where you need support.

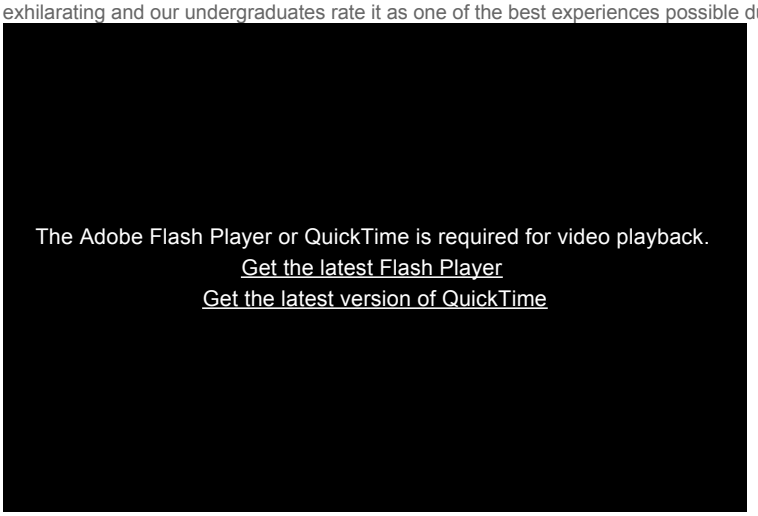
How will I be taught?
As a Birmingham student, you are joining the academic elite and have the privilege of learning from world-leading experts in the field of civil engineering. Throughout your studies, you will be encouraged to become an independent and self-motivated learner, thriving on challenge and opportunities to think for yourself.

Personal tutor
At the start of your degree, you'll be assigned a Personal Tutor who will remain with you throughout your studies to help you in three important areas: supporting your academic progress, developing transferable skills and dealing with any welfare issues.

Contact hours
In your first and second years, the course is delivered as lectures, small group workshops, laboratories, computer-based activities, enquiry-based learning and tutorials. A strong emphasis is placed on design project work in your third year.

Laboratory-based work is an integral part of our civil engineering degree programme, vital to develop your experimental practical skills, and to reinforce concepts introduced in lectures or to explore a particular phenomenon. Lab work takes place mainly in the first two years of the programme when you'll learn all the fundamental concepts, but you can also opt for a laboratory final-year project. You never know, you could be 'playing' in the Schools newly constructed wind tunnel.

Build something big. You could spend a week during your degree on site with your fellow students building a scale version of an iconic structure. It is muddy and exhilarating and our undergraduates rate it as one of the best experiences possible during a civil engineering degree:



Lectures take place in our theatres which, as well as the traditional whiteboard and pen, are equipped with the latest technology, including facilities to show movies, animations and molecular graphics, to record lectures and to interact with 'ask the audience' style electronic voting systems.

Small-group tutorials/personal tutorials run alongside the lecture course, addressing any individual problems you may have and allowing you to consolidate lecture material, as well as test your understanding through problem-solving exercises.

Enquiry Based Learning (EBL) is a group activity which requires you to work in a team, with a variety of assessment methods; in either a group or individually, by written reports and sometimes as a presentation. Based on techniques used in research-led organisations like the University of Birmingham, EBL gives you a research-orientated approach to a problem and helps you to gain essential skills that are highly valued by employers.

Assessment methods

Each module is assessed independently with all containing some components of continuous assessment, which usually accounts for a quarter to one third of your marks. Some modules are completely assessed by coursework. Assessment methods include end-of-year examinations in May and June, written assignments, oral and poster presentations, computer-based tests, marked exercises, and laboratory and project reports.

In your first year, assessment is weighted more towards exams at 56%, with coursework accounting for 44% of your mark. By the second year they're weighted equally. In the third year your design projects take precedence and this is reflected in the marks; 55% coursework and 45% examination. These figures are the average for MEng Civil Engineering so they'll vary depending on what options you choose.

During your first year you will also undergo a formal 'transition' review, mentioned above, to see how you are getting on and whether there are particular areas where you need support. This is in addition to the personal tutor who is based in your School or Department and can help with any academic issues you encounter. Our Academic Skills Centre also offers you support with your learning. The centre is a place where you can develop your mathematical, academic writing and general academic skills. It is the centre?s aim to help you to become a more effective and independent learner through the use of a range of high-quality and appropriate learning support services. These range from drop-in sessions with support with mathematics and statistics based problems provided by experienced mathematicians, to workshops on a range of topics including note taking, reading, writing and presentation skills.

Feedback is an essential part of learning and we use a wide range of methods, such as written feedback on your assessments, class feedback sessions and discussions with your tutor. You'll receive feedback on each assessment within four weeks, highlighting the positives of your work as well as any areas that need more attention. You will also be given feedback on any exams that you take; if you fail an exam we will ensure that you receive particularly detailed feedback to enable you to learn for the future.

Employability

Feedback shows that, on average, 95% of our students are working in professional/managerial jobs six months after graduating, a rise of 8% on last year's (2012) figure, and earning salaries in the region of ?23-?25,000 per annum.

As one of our Civil Engineering students, the range of career opportunities open to you when you graduate is enormous. The civil engineering and construction industries offer a wealth of jobs (from engineering consultants to contractors), with work in such fields as structures, geotechnics, water, environmental, highways, and railways. Engineering management jobs could also come from the environmental protection and local government sectors, or your problem-solving skills could, equally, be directed towards a career in finance, law, teaching and/or research.

Superb opportunities exist for you to gain industrial experience before you graduate:

You could add a year to your programme and spend this time in paid employment; usually between your second and third study years. You will gain relevant work experience, and earn money putting into practice the skills and knowledge gained from your degree. Students on placement get involved in practical projects which ask challenging questions that require good engineering answers - and which often lead to sponsorship and/or the offer of a graduate job.

Spending at least two summers in industries will enable you to obtain a 'with industrial experience' degree.

Many top construction companies offer sponsorship to students through the **RESPECT scheme (http://www.birmingham.ac.uk/schools/civil-engineering/undergraduate/industry-sponsorship.aspx)** .

A rich vein of experience will be available for you to tap into, not only through the University's dedicated Careers Network, but from the School's own industrial liaison officer. From these careers professionals you will gain the skills to help you secure a range of placements from vacation jobs to, eventually, your graduate job.

At School-level, you can opt to add a year to your programme, whatever the course you are studying, and spend this time on placement in industry. You will gain relevant work experience, and earn money putting into practice the skills and knowledge gained from your degree. Students on placement get involved in serious projects which ask searching questions that require good engineering answers - and which often lead to sponsorship and/or the offer of a graduate job. On successful completion of a placement in industry organised by the School, and success in your studies, you will be awarded the Certificate in Industrial Studies to add to your degree and improve your employability prospects.

At University-level, our unique careers guidance service is tailored to academic subject areas, offering a specialised team (in each of the five academic colleges) who can give you expert advice. Our team sources exclusive work experience opportunities to help you stand out amongst the competition, with mentoring, global internships and placements available to you. Once you have a career in your sights, one-to-one support with CVs and job applications will help give you the edge. In addition, our employer-endorsed award-winning **Personal Skills Award (PSA) (https://intranet.birmingham.ac.uk/as/employability/psa/index.aspx)** recognises your extra-curricular activities, and provides an accredited employability programme designed to improve your career prospects.

We also offer voluntary work which complements your studies by helping you gain practical experiences in occupational settings while contributing back to society. This can bring new skills that will be useful throughout your future and can make a positive impact on your learning whilst at university. Volunteering enables you to develop skills such as communication, interpersonal skills, teamwork, self-confidence and self-discipline all of which can be transferred into your studies.

Whichever of the above forms of careers guidance, or combination of such, you select you will find your prospects for employment after graduation considerably enhanced. If you make the most of the wide range of careers advice we can offer, you will be able to develop your career from the moment you arrive.

Career destinations of previous graduates include:

- Amey
- ARUP
- Atkins
- Balfour Beatty Ltd
- Bam Nuttall Ltd
- Birmingham City Council

- Bombardier Transportation
- Costain Group PLC
- Edmund Nuttall Ltd
- FaberMaunsell/AECOM
- Galliford Try
- Grontmij
- Interserve
- Jacobs
- Keller
- Laing O'Rourke,
- Met Office
- Metronet Rail BCV
- Mott MacDonald Group Limited
- Nottinghamshire County Council
- Npower
- Nuttall
- Royal Haskoning
- Walsall Metropolitan Borough Council
- Wardeil - Armstrong

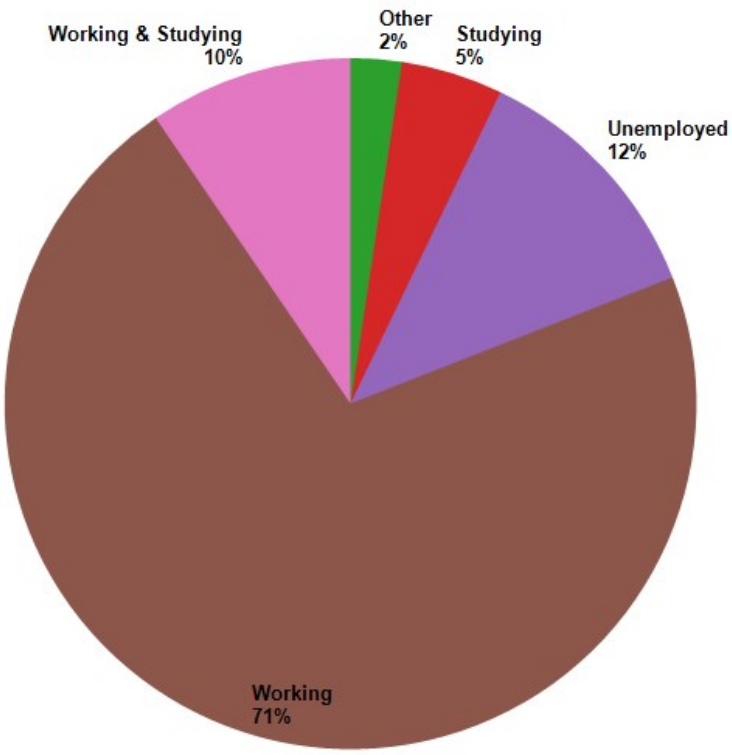
University Careers Network

Preparation for your career should be one of the first things you think about as you start university. Whether you have a clear idea of where your future aspirations lie or want to consider the broad range of opportunities available once you have a Birmingham degree, our Careers Network can help you achieve your goal.

If you make the most of the **wide range of services (https://intranet.birmingham.ac.uk/as/employability/careers/college/eps/index.aspx)** you will be able to develop your career from the moment you arrive.

Destinations of Leavers from Higher Education (DLHE) 2011/12

The DLHE survey is conducted 6 months after graduation.



Examples of occupations

- Assistant Civil Engineer
- Consultant Engineer
- Graduate Bridge Engineer
- Graduate Leader
- Graduate Site Engineer
- Graduate Tunnelling Engineer
- Officer Cadet
- Site Engineer
- Structural Engineer
- Water Engineer

Further study - examples of courses

- MRes Materials and Sustainable Technology
- MRes Science and Engineering of Materials
- MSc Computer Science
- MSc Construction Management
- MSc Environmental Technology
- MSc Railway Systems Engineering and Integration
- MSc Road Engineering and Management
- PhD Civil Engineering

Visit the **Careers section of the University website**

(https://intranet.birmingham.ac.uk/as/employability/careers/college/eps/index.aspx) for further information.

Professional accreditation

This degree is accredited as:
1. fully satisfying the educational base for an Incorporated Engineer (IEng).
2. partially satisfying the educational base for a Chartered Engineer (CEng). A programme of accredited Further Learning will be required to complete the educational base for CEng.

See **www.jbm.org.uk (http://www.jbm.org.uk/)** for further information and details of Further Learning programmes for CEng. It is also recognised by the European Federation of National Engineering Associations (FEANI).

Additional accreditation **Yes**

BEng (Hons) Civil Engineering with Business Manageme...
Full time

To see more details and compare with other courses

Visit UNISTATS

Official data collected by HEFCE

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