Studying Mechanical Engineering.

www.sheffield.ac.uk/mecheng
Welcome from the Head of Department

A degree in mechanical engineering is the key to an exciting and rewarding career. Engineers take a fundamental understanding of science and apply it to create new products, processes and devices. Engineers contribute a unique role in the development of society.

The University of Sheffield is one of the finest places to study engineering. We are justly proud of all our staff and students and the contribution they make to the Department. Our philosophy is one of fostering a culture of innovative teaching and entrepreneurial cutting-edge research. We aim to excel at everything we do and work hard to maintain the highest of standards. We also like to think we make engineering exciting!

Our core course is an MEng or BEng in Mechanical Engineering. You can also learn a language and study abroad with one of our partner universities as part of your degree. All new students are paired with a personal tutor, who you see once a week during your first year and regularly during the rest of your course. Your tutor is there to offer you help and support, whether academic or pastoral.

Our students are amongst the best in the country and we have over 400 undergraduate students, as well as more than 80 postgraduates. We recruit bright and able young people and challenge them to achieve at the very highest levels.

Our staff are dedicated professional engineers with a wide range of specialist expertise. So you will be taught by somebody who is practicing in the field and up to date with the recent technology. Their links with industry have an important input into teaching and project work and also help with graduate recruitment. You, as an undergraduate, can reap the benefits of the interests and expertise of staff in the Department.

We aim to liven up academic learning with innovation, research, discovery, design and manufacture. You will get to grips with real engineering projects, and benefit from our close partnerships with many of the world’s leading companies including Siemens, BAE Systems, Airbus, Ford, Rolls-Royce, Nissan, Phillips and Shell.

We are continually investing in facilities for students: we have installed a flight simulator and wind tunnel, refurbished several laboratories and invested in a new undergraduate workshop where students can get their hands dirty. These, combined with a design office, well equipped lecture theatres and a computer-aided design centre, give you the very best facilities to support the more formal lectures and tutorials.

University life isn’t just about study. We are strongly committed to ensuring that your whole student experience is one you will remember with fondness for the rest of your life. You will get access to a first class education, an amazing range of social and sporting activities and a vibrant dynamic culture. But don’t take my word for it, read this brochure, look at our website, give us a ring and, most importantly, come and visit us on one of our open days. I can assure you of a warm welcome and the chance to see what engineering is really about.

Professor Rob Dwyer-Joyce
Head of Department

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Mechanical engineering is an incredibly diverse subject, which affects almost every aspect of our lives. Mechanical engineers are involved with the conception, design, production and marketing of all manufactured products, from the latest aircraft to the delicate instruments used in microsurgery.

Being an engineer involves thinking creatively to solve complex problems, and many of the critical challenges facing the world today, such as climate change and resource depletion, will require mechanical engineers to find innovative solutions.

GRADUATE PROFILE...

I graduated in 2007 with an MEng in Mechanical Engineering from the University of Sheffield. After completing a summer placement at building design consultancy, Buro Happold, I went on to work in their Leeds office as a building services engineer for the following two years, where I furthered my interest in renewable energy (already explored during my degree).

In 2009 I decided to return to university to study towards a PhD. The University of Sheffield was offering places on a new-route PhD course in the ‘Energy Futures Doctoral Training Centre’, which comprised an initial year of general learning and research in the field of energy, followed by specialisation into a chosen three year PhD. Now halfway through the course I am looking at the energy performance of office buildings for my research, and enjoying living back in Sheffield.

Outside of work I started playing water polo when I first came to university and after rejoining the university team last year, am now the girls’ team captain.

Holly Castleton
Studying mechanical engineering at Sheffield

Our courses cover all aspects of engineering, from design and innovation to manufacturing, as well as the fundamental scientific principles underpinning them.

What you’ll learn

Your first two years will be spent covering the basics that all mechanical engineers need, including mathematics, dynamics and fluid mechanics. You’ll then get the opportunity to specialise in your third and fourth years by choosing from a wide range of exciting and challenging optional modules.

As well as offering an exceptional engineering education we’ll also help you develop the other skills necessary to be a successful mechanical engineer, such as team-working and effective communication, as well as problem solving skills that will give you the confidence to tackle any mechanical engineering challenge.

How you’ll be taught

You’ll learn through a mixture of lectures, tutorials, lab sessions and design classes.

Gaining hands-on engineering experience is vital, so you’ll have at least three hours a week in our high-quality labs, putting your knowledge into practice. You’ll also have three hours of design classes, where you’ll learn how to apply your skills to real-life problems.

We’re also dedicated to small-group teaching and you’ll have regular tutorials, in groups of four or five students, where your tutor will help you to work through problems which build upon what you’ve learnt in lectures.

For up-to-date information on available modules please visit our web pages: www.sheffield.ac.uk/mecheng/prospectiveug
What makes us special?

- We’re a supportive department, with friendly and approachable staff.
- Every student has a personal tutor who provides both academic and pastoral support throughout their time at university.
- We have a strong commitment to dynamic and effective teaching – enterprise is particularly important to us and our teaching philosophy encourages students to develop their own business ideas.
- During your degree you’ll be able to gain valuable experience using industry-standard software packages, including Ansys, Solidworks and LabView.
- Our students are involved in an exciting range of extra-curricular activities, such as Engineers Without Borders and Formula Student.
- Our excellent links with industry mean we can help you find placements and job opportunities with prestigious companies.
- Your final year individual project can be chosen from a wide range of research areas – many are aligned with industry, giving you the chance to apply your skills to real industrial projects.
- Our study abroad programmes give you the opportunity to spend a year in America, Canada or Europe as part of your degree.

Our success:

- The 2013 Times Good University Guide ranked us in the top three mechanical engineering departments in the UK.
- Our students gave us a 97 per cent overall satisfaction rating in the latest National Student Survey.
- We achieved an outstanding score in the last Research Assessment Exercise, placing us second in the country for mechanical engineering departments.
Your future

Our courses are designed to give you the best possible chance of getting the job you want. When you leave the University of Sheffield you will be sought after by employers looking for high-quality mechanical engineering graduates. In the past our graduates have found employment with prestigious companies such as Rolls-Royce, Arup, Jaguar, Network Rail and Deutsche Bank.

Many of our graduates go into industry, particularly manufacturing, transport and power generation, or work for engineering consultancies, in both technical and managerial roles. Outside of engineering some of our graduates have become events managers, teachers and charity workers, while others have started their own business.

Careers day

The Department maintains close links with industry and also arranges an annual careers day, which brings final year students into contact with prospective employers, including Accenture, Ricardo, Shell and BAE Systems.

The careers day is organised in conjunction with the University Careers Service, which offers students practical advice and information on CV preparation, job applications and interviews. In your final year you’ll also be given a personal careers interview to help you review your career plans.

Facts and figures

- The average starting salary for our graduates in 2012 was £26,000 (source: HESA)
- Last year 85% of our students secured graduate-level jobs six months after graduating
- Mechanical engineering is in the top ten subjects for graduate salaries (Source: HESA)
- The average salary of a chartered engineer in 2010 was £55,000 (Source: Engineering UK 2011)
Our graduates

Bill Hart

Bill graduated with an MEng in Mechanical Engineering and now works for Centrica Energy.

After finishing my degree I joined Centrica’s graduate engineering scheme which involves two year-long placements. My first placement is at Centrica Energy Upstream in Heysham where I work at the engineering support base in the process integrity department for our offshore and onshore assets.

I initially applied to Centrica for a summer internship between my third and fourth years. I was then offered a place on the graduate scheme to start in September 2010. Before applying to Centrica I hadn’t heard of the company very much apart from the odd news article but, after some research I found out that they owned British Gas and a number of power stations and gas fields in the UK, as well as gas assets around the world.

My job involves a variety of tasks. Some are day-to-day tasks like answering technical queries that are raised by operations or maintenance teams. Others are longer-term projects that run alongside day-to-day tasks, and these take up the majority of my time.

I like the fact that I’m in an operational business and therefore get exposed to everything that goes on. It also means that there’s no standard week – some days I’ll be in the office, some at the terminals and some off shore.

As well as the job being great fun, everyone at my office is really friendly and there’s a good social side to work. To top it all off Centrica recently came 43rd in The Times top 100 graduate.

Sarah Tomlinson

Sarah studied for both a degree and PhD in Mechanical Engineering in the Department before joining law firm Withers & Rogers as a patent attorney.

After finishing my PhD in 2009 I began training as a patent lawyer. It takes at least four years to qualify, and there are two qualifications to achieve: UK qualification and European qualification. Much of the training is done in-house by learning on the job and attending tutorials.

My day-to-day work is varied and in general includes drafting patent applications, writing to the Patent Office to explain why a patent should be granted and suggesting possible amendments to patent applications to allow them to proceed to grant. I also give advice on whether someone is at risk of infringing a patent, and provide advice to clients about legal issues relating to patents.

To be a patent attorney you need to have a scientific degree. Most of the patents and patent applications I deal with are in the field of engineering. They may not be in a field I am overly familiar with, but my degree has given me the background knowledge I need to understand many engineering technologies.

Report writing and presenting was a large part of my university course and PhD, and the skills I learnt from this have been invaluable in helping me with my job as much of my time is spent explaining things to either the patent office or clients.

Dilan Paranavithana

Dilan moved from Sri Lanka to Sheffield to study Mechanical Engineering with Industrial Management. He now works for Rolls-Royce as a Composites Manufacturing Engineer.

During my penultimate year of university I attended a friend’s graduation project presentation at Rolls-Royce, Derby. Inspired, I successfully applied for Rolls-Royce’s engineering graduate scheme, after which I pursued several short placements in the company for 18 months.

In my current permanent role I develop composites manufacturing capabilities in the external supply chain to enable delivery of new engine projects. Working at the cutting edge of manufacturing technology, understanding the complexities of a jet engine and influencing its future design with some of the best professionals in the country makes it a challenging and enjoyable role.

My degree in Mechanical Engineering has enabled me to build up a logical thinking process that helps me day to day in my current role of introducing and exploiting new technology. My job requires key skills such as problem solving, applying engineering judgement and communicating with a number of internal and external stakeholders, all of which I developed through the varied project work in my degree.

In 2011 I secured a secondment to a brand new Rolls-Royce facility in Virginia, USA, where I spent six months validating the manufacturing processes for a critical engine component. Living and working there gave me experience of important technical skills involved with site transition, as well as the opportunity to travel in America, from New York to the Grand Canyon and Los Angeles!
The University

With over 25,000 students in 50 departments, the University of Sheffield has a large and diverse student population, allowing you plenty of opportunities to connect with other students beyond your own discipline.

The University has a strong academic reputation and is also highly regarded for its superb social life and excellent facilities, including the Students’ Union, Information Commons and S10 Sports Centre.

Information Commons

The Information Commons brings together the University library and student computing services in a single building, allowing you 24-hour access to IT facilities and over 110,000 core textbooks. There’s also a wide range of study spaces in the IC, from silent study areas to bookable group rooms. These study spaces have been designed with flexibility in mind, so, for example, all the furniture is on wheels allowing you to create a workspace that suits your own needs, and they are equipped with the latest technology, such as smart boards, to make it easier for you to share and record ideas. There’s also a cafe that’s open late to help you fuel your study sessions.

Sports facilities

The University’s S10 sports centre provides excellent sporting facilities for students at affordable prices, including

- a 33m six lane swimming pool
- the Matrix bouldering wall
- a state-of-the-art fitness centre, with over 150 pieces of fitness equipment
- football, rugby and hockey pitches

Students’ Union

Sheffield Students’ Union provides facilities, support and entertainment for all students during their time at the University of Sheffield. It has its own modern building featuring cafes, shops and bars, as well as a student job shop, helping you to find part-time jobs and summer placements, and an advice centre, which offers support on money, housing and academic issues. The Activities and Sports Zone gives students the opportunity to join over 300 different sports clubs and societies and there’s something on at the union every night of the week, from live music and club nights to film screenings in the SU’s own 400 seat cinema.

Did you know that Sheffield Students’ Union...

...was voted the best students’ union in Britain by Virgin Alternative Universities Guide?
...was the highest rated students’ union in The Times Higher Education Student Experience Survey?
Living in Sheffield

Sheffield’s rich industrial heritage makes it a fantastic place to study engineering, but it’s also a modern, vibrant city, which has seen major redevelopment in the past decade while still managing to keep its unique character.

As you’d expect from England’s fourth largest city there’s always something going on, but Sheffield’s compact city centre and thriving suburbs means it has a friendly neighbourhood feeling and a great sense of community. With over 45,000 students at Sheffield’s two universities, it’s a real student city, with an exceptional nightlife. Right next to the Engineering Faculty is West Street, where you’ll find a wide selection of pubs, bars and restaurants. There’s also a great music scene, with the O2 Academy, Leadmill and Plug all putting on regular gigs and club nights, as well as an eclectic mix of smaller venues.

The city is also home to the Crucible and Lyceum theatres, award-winning galleries and museums and the Showroom, one of the largest independent cinemas in Europe. If you love to shop, Meadowhall brings over 250 stores under one roof, while Devonshire Green is the perfect area if you’re looking for quirky, individual shops.

Sheffield is also one of the UK’s greenest cities, with over 150 woodland areas and 50 parks. The spectacular scenery of the Peak District is close-by, making it easy to get away from the city and explore the countryside.

Sheffield is a safe and affordable city with a welcoming, relaxed atmosphere and we think you’ll feel at home here straight away.
We realise that where you live can have a huge impact on your student experience and so the University offers a range of high-quality accommodation options to suit all needs.

The University’s main student accommodation is based at the Endcliffe and Ranmoor student villages. Set in an attractive Sheffield suburb, the two sites contain modern catered and self-catering apartments, many of which are en-suite. With around 3,500 people living in Endcliffe and 1,000 at Ranmoor, both sites are lively student communities, and their fantastic facilities mean you’ll have everything you need right on your doorstep, from laundrettes and shops to cafes and bars.

Both student villages are in easy walking and cycling distance of the University, and on a frequent bus route, but if you prefer to be in the thick of things, or just want to be closer to the Engineering Faculty, there is also a wide variety of city centre accommodation.

All of our first year students are guaranteed a place in University accommodation, and many returning students choose the convenience of our student villages as well. Sheffield also has a good selection of private student houses and apartments, most of which can be found in popular student areas such as Broomhill and Crookes.

For more information on student accommodation please visit: www.sheffield.ac.uk/accommodation
International students

The Department of Mechanical Engineering has a world-wide reputation for excellence and a degree from us will help you achieve great professional success, wherever you start your career.

Each year the Department welcomes over 150 international students from all over the world onto our undergraduate and postgraduate taught courses. We realise that coming to study in the UK is a big step so we do everything we can to help you settle in.

You’ll be guaranteed a place in University accommodation for your first year and will have easy access to facilities including the University’s student health centre. You’ll have a personal tutor who’ll be able to help you with any problems that may be affecting your studies, while our international student support office are always on hand to offer practical advice on issues such as immigration, housing and finances.

Sheffield is a great place to call home while you study for your degree. Located in the heart of the UK, it is a small, friendly city with excellent transport links – London is just over two hours away by train and you can reach Manchester Airport in around an hour.

While you’re studying in the UK you’ll find your English improves all the time, but if you feel you need extra help we can provide you with free language tuition in our well-equipped English Language Teaching Centre.

The multi-faith chaplaincy provides information and support for students of all faiths and is served by chaplains representing many different religious groups. The Students’ Union also supports a wide variety of student societies representing different countries, cultures and religions, which are the perfect way to make new friends and to help you feel at home while you’re in Sheffield.

I chose to study at the University of Sheffield after making applications to several universities in the UK. One important reason for my choice was that the Department of Mechanical Engineering has a great reputation and excels in teaching and research.

Sheffield is also a safe and peaceful city, which makes it a great place to study. After two years in Sheffield I think I made the right decision. The Department provides students with excellent facilities, fascinating modules and exciting hands-on practice.

The most interesting module, in my view, is the design skills module. It’s a great opportunity to combine all the knowledge you’ve learnt with your own imagination. We build our designs and then use them to compete against each other. Hands-on manufacturing practice and computer simulation play a significant role in teaching and it really helps to learn something by experiencing it directly.

Xiangwei Li
Student activities

Our students are involved in a huge range of extra-curricular activities. Here are just some of the societies the Department works closely with to help students get the most out of their time at Sheffield.

Formula Student

Sheffield Formula Racing is a team of dedicated and enthusiastic students who each year design and build a single seat racing car to compete in the IMechE’s Formula Student competition. Formula Student is the biggest student motorsport competition in Europe and is regarded as a great stepping stone into the motorsports industry.

The team was set up in September 2009 by mechanical engineering undergraduates Marissa Bole and Josh Peckett. Their first car was designed and built in just ten months in order to compete in Formula Student 2010 at Silverstone, and since then the team has gone from strength to strength, moving from 62nd place in 2010 to 37th in 2012.

Around 30 students from departments across the University are now involved in Sheffield Formula Racing, with support from staff in the Department of Mechanical Engineering. Although students work on the project outside of their normal academic studies, many incorporate it into their final year individual design project.

Formula Student teams are scored not only on their car’s performance but also on its cost, reliability and overall design. This means students gain essential business skills, such as marketing and costing, as well as an exciting hands-on engineering experience.

Pedsoc

The Sheffield Pedal Car Society was established in April 2009 by a group of second year mechanical engineering students, keen to apply their engineering knowledge to a complex and challenging task.

With support from the University and their sponsors, Atkins, the team designs and builds four wheeled pedal-powered racers to compete in the annual British Pedal Car Championships.

The championship consists of a series of races throughout the year, ranging from one hour sprints to 24 hour test of endurance. Races require between four and six drivers, as well as a race support team to man the pits.
Sheffield SIFE (Students in Free Enterprise) is a society dedicated to promoting student entrepreneurship and volunteering.

Its members are involved in a variety of projects designed to make a difference to people’s lives, both in Sheffield and around the world. As Sheffield SIFE is a registered limited company and operates as a real non-profit organisation, students are also able to gain valuable business experience.

Sheffield SIFE is part of the larger SIFE organisation, which is active in over 1,500 universities in 50 countries around the world. Each year over 40 UK teams showcase their projects at the SIFE National Championships in London, which Sheffield won in 2010, allowing them to represent the UK in the SIFE world cup in Los Angeles.

We think engineers have the right skills and knowledge to make excellent entrepreneurs and we encourage all our students to be involved in SIFE.

A recent project, which mechanical engineering students helped to set up, involved producing thermal space blankets from used crisp packets. The students researched and developed the technology to manufacture the blankets, with help from staff in the Department, and it is now being used by a community in Bolivia to make emergency blankets and ponchos to sell at outdoor events.

For more information on SIFE please visit: www.sheffieldsife.org

Mechsoc

MechSoc is your society, run by you.

MechSoc is here to support you while you study, to offset the challenging academic demands of an engineering degree and generally improve your student experience.

Like most academic societies, one of its main roles is to help you meet other people on your course through its regular socials. So far this year MechSoc has organised a 150-engineer strong bar crawl early in freshers’ week so that new students could get acquainted with Sheffield and their fellow engineers, and there are many more events lined up for the rest of the year.

The society has four intra-mural 6-a-side teams and an 11-a-side team competing in the University of Sheffield leagues and is hoping to set up an intra-mural mixed hockey team this year as well.

MechSoc not only takes care of your free time, it also provides great opportunities, such as industrial trips, so that when you’re ready to move on after your degree you’ll not only know about engineering, engineering will know about you.

mechsoc@sheffield.ac.uk
**Student activities**

**Engineers Without Borders**

Engineers Without Borders is a world-wide organisation that works to promote international development through engineering. EWB Sheffield brings together students from across the University, including many mechanical engineering students, to work on innovative engineering projects designed to improve lives and encourage sustainability.

The group’s recent projects have included

- designing a rainwater harvesting system
- setting up a pedal powered cinema
- building their own wind turbine, which they hope to donate to a local school

Students also help to inspire the next generation of engineers by running regular outreach programmes in local schools.

EWB Sheffield provides a great opportunity for engineering students to escape from behind their textbooks and learn practical design skills while working on real-life problems.

**Global Engineering Challenge**

The Global Engineering Challenge is a week-long project that all first years in the Engineering Faculty take part in, which asks you to use your engineering knowledge and design skills to tackle a real-world problem.

The project is based on the Engineers Without Borders Challenge – a national competition for engineering students. Working in teams, you’ll find solutions to real engineering problems faced by developing communities. You could find yourself researching alternative fuel sources for a small community in India or designing new water and sanitation systems.

We’ll challenge you to think not only about the technical issues involved but also the social, ethical and environmental implications of your designs and to consider engineering issues from a global perspective. You’ll also collaborate with students from across all engineering departments, making you think outside your discipline.

The Global Engineering Challenge has been designed to test your team working and communication skills, as well as your ability to solve complex problems, and provides you with a taste of what you might encounter as a professional engineer.
MEng Mechanical Engineering

This is the most flexible of our MEng degrees and graduates from this course go on to work in all areas of mechanical engineering. The syllabus covers fundamental engineering principles, while also giving you the freedom to follow individual interests in the third and fourth years.

There is a strong focus on engineering design and modelling throughout the course, giving you plenty of opportunities to apply the theoretical knowledge you gain to practical engineering problems. You’ll also be introduced to the role of business and management in engineering.

The first five semesters cover the core subjects required to be a successful mechanical engineer, including design, mathematics, dynamics, fluid mechanics, thermodynamics and the mechanical behaviour of materials.

The aim of the final three semesters is to allow you to develop your own interests and prepare you for your career. You’ll complete a group design project in your third year, as well as an extended individual project in your final year. You can also choose from a wide selection of engineering modules to complement these.

MEng Mechanical Engineering with Nuclear Technology

As nuclear power becomes increasingly important in the production of low carbon electricity there is growing demand for skilled nuclear engineers, and our MEng degree in Mechanical Engineering with Nuclear Technology has been specially designed in consultation with the nuclear industry to help meet this need.

Nuclear engineering poses significant mechanical engineering challenges, ranging from the power cycle design and the structural integrity of various reactor components to the effective cooling and energy transfer of the reactor.

This degree provides a broad knowledge and understanding of mechanical engineering together with a more detailed critical understanding of nuclear engineering, needed for a career in the sector.

The course follows the MEng Mechanical Engineering for the first two years. In years three and four you’ll have the opportunity to specialise in nuclear engineering through taught modules and both an individual and a group design project focusing on nuclear technology.

For more information on our courses including module information please visit: www.sheffield.ac.uk/mecheng/prospectiveug
MEng Mechanical Engineering with French, German, Spanish or Italian

In today’s global economy, graduates who can speak more than one language have a significant advantage. This course allows you to learn a language at the same time as completing your degree and to spend a year at a leading European university.

You’ll spend your third year studying mechanical engineering at one of our partner universities, helping you become fluent in your chosen language while continuing your engineering studies. A year abroad also offers a fantastic opportunity to experience another culture and to develop your confidence and independence.

Exchanges are arranged through the Erasmus scheme and the department has a year abroad tutor who will advise you of the placements on offer and help to find the best option for you. Students who spend an entire academic year at a partner university will normally receive an Erasmus grant to help with the additional cost of living abroad.

STUDENT PROFILE...

“Despite the many looks of horror that I received when explaining that my choice of degree at university was ‘Mechanical Engineering with French’, it is a degree choice that I would recommend to anyone unafraid of a challenge and interested in continuing a language from AS/A Level. Graduating as a mechanical engineer with an international background and fluency in a second language from the University of Sheffield presents a whole host of opportunities, both in the UK and abroad. In my case, I am soon to start working in Paris for EDF as a mechanical engineer, developing the UK’s upcoming Nuclear New Build scheme.

Of course, living abroad as a student can be challenging and rather tiring at the start. In my case, everywhere I turned, I heard, saw and read French... an inescapable truth of living in France, but it does take your mind a small while to adjust. However, once it does, the results are quite remarkable. Before Christmas, I found that I had begun to start speaking French without having to think about what I was saying first.

The year abroad was possibly the best decision my 18-year-old self made before coming to the University of Sheffield. If you are someone with a flair for languages and the idea of throwing yourself in the deep-end with some like-minded individuals from around the world interests you, you should consider studying mechanical engineering with a foreign language... it may end up being the best decision you’ll ever make.

Nick Morris
Mechanical Engineering with French

As part our MEng Mechanical Engineering with German degree you’ll get the chance to study in the beautiful city of Dresden.”
**MEng Mechanical Engineering with a Year in North America**

Our study abroad programme gives you the chance to spend a year studying at a leading university in the USA or Canada as part of your undergraduate degree, without extending the length of your course.

You’ll spend your third year abroad studying an agreed set of mechanical engineering modules. These are selected to mirror our modules at the same level and to build upon the knowledge and skills gained in the first two years of your MEng. You will then return to Sheffield to complete your final year. The Department has exchange agreements with over 20 universities across the USA and Canada, and in recent years our students have gone to the University of California Berkley and the University of Michigan in the USA and the Universities of Toronto and Alberta in Canada.

This course provides a great opportunity to experience a different culture and develop international business skills, and is ideal if you want to benefit from a year abroad, but in an English-speaking country.

**MEng/BEng Mechanical Engineering with a Year in Industry**

Relevant work experience can help you stand out in a crowded graduate jobs market and our MEng and BEng courses with a year in industry give you the opportunity to gain valuable industrial experience as part of your degree programme. You’ll spend a year on placement with a company of your choice, helping you to put your academic studies into context, as well as improving your technical skills and employability.

Placements usually take place in the third year of a BEng degree and the fourth year of an MEng degree, with students then returning to Sheffield to complete their final year.

Students are responsible for finding their own placements but the Department offers support and guidance to help you find the right position, as well as to get the most out of your placement. Salaries for placement students range from £11,000 to £21,000, though they are typically between £14,000 and £16,000.

*University of Toronto*
MEng Mechanical Engineering with Industrial Management

Our MEng Mechanical Engineering with Industrial Management has been designed to meet the growing demand for graduates with both engineering knowledge and business skills. It is particularly relevant for students interested in a management career within the engineering industry.

The course aims to produce not only high quality mechanical engineers with strong technical skills, but also potential entrepreneurs and business leaders. Alongside the core engineering syllabus you'll learn essential management techniques in areas such as marketing, business planning and enterprise.

In your final year you'll undertake an individual research project that brings together both technical and management issues, giving you the opportunity to apply your business skills within an engineering context.

BEng Mechanical Engineering

Our BEng in Mechanical Engineering provides an excellent alternative to an MEng course if you would prefer to study for three years rather than four. Many students choose this course as they would like to enter the work place earlier, while others continue their engineering education through an MSc.

The course follows the MEng syllabus for the first five semesters, providing an excellent grounding in mechanical engineering principles, and concludes with an extended investigative project and a choice of four optional modules in the final semester.

To qualify for chartered status, you will need to carry out at least one year of further study. Depending on your performance you may be able to switch to the MEng degree at the end of your second year.

Mechanical Engineering with a Foundation Year

If you don't have the usual scientific or mathematical background needed for an engineering degree, our foundation year is for you. It provides a route into mechanical engineering for students who have qualifications in subjects other than Maths and Science or for mature students who would like to return to education.

You will be brought up to A Level standard in Maths, Physics and Chemistry, and after successfully completing the foundation year you can move into the first year of any of our undergraduate degrees.

Professional accreditation

All of our undergraduate courses are accredited by the Institution of Mechanical Engineers (IMechE). An MEng degree satisfies the academic requirements for Chartered Engineer (CEng) status, while a BEng degree requires a year of further study.

After you finish your degree you will need to gain suitable engineering experience before you can apply for professional accreditation and most engineers gain chartered status around five to six years after graduating.
Admissions

For all our courses, except for our foundation year, you will need to have studied Maths and either Physics or Chemistry.

International students require IELTS with an overall score of 6.5 and 6.0 in each component or an equivalent English Language qualification.

For Mechanical Engineering with French, German, Italian or Spanish you’ll also need a GCSE grade A in the language you’d like to study.

MEng and BEng

A Levels – AAA including Maths and either Physics or Chemistry
Scottish Highers + Advanced Highers – AAAAB + AA
International Baccalaureate – 37 points, including 6 in Higher Level Maths and 6 in either HL Physics or Chemistry

Foundation Year

A Levels – ABB with GCSE Maths and GCSE Science at grade B or equivalent
Scottish Highers + Advanced Highers - AABBB + AB
International Baccalaureate – 33 points

We accept a wide range of UK and international qualifications. If you’re in any doubt about the suitability of your qualifications please contact us directly.

Visit days

All successful applicants are invited to a departmental visit day, which allows you to find out more about the Department, University and Sheffield. Choosing where to study is a very important decision and the visit day is designed to help you make an informed choice.

You’ll meet current students, who’ll give you a tour of the Department, and you’ll have the opportunity to talk to members of academic staff in an informal setting, giving you the chance to ask questions and to tell us about your interest in engineering. You’ll also hear from the admissions tutor about our courses, as well as visiting University accommodation and the Students’ Union building.

Contact us

Undergraduate Admissions Tutors:
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