For general undergraduate enquiries contact:
The Enquiry Centre
t: +44 (0)115 951 5559
e: undergraduate-enquiries@nottingham.ac.uk
w: www.nottingham.ac.uk/faqs

Chemical and Environmental Engineering
Undergraduate study 2016
www.nottingham.ac.uk/chemenv
Welcome to the Department of Chemical and Environmental Engineering

It is an exciting time to be studying chemical and environmental engineering. Over the coming decades, society faces significant challenges related to energy supply, provision of healthcare, environmental sustainability, and food and water security. Undoubtedly, the contributions of both chemical and environmental engineers will be required to address these challenges.

At Nottingham our objective is to produce the highest quality graduates, with the skills that are demanded by the employers of today and tomorrow. Our blend of chemical and environmental engineering is unique in the UK and is highly attractive to employers. The department has a reputation for industrially relevant teaching and research, and was the first department in the country to run a four-year (MEng) engineering course.

Our courses are built around student-centred learning which means our students are independent thinkers, with strong analytical, team working, communication and problem-solving skills. Students also receive a thorough training in fundamental science and engineering in order to prepare them for the technical challenges that lie ahead.

Our staff have a wide range of expertise in chemical and environmental engineering applications. Industry is truly at the forefront of all the department’s activities.

I hope you find the information contained within this brochure useful. If you have further questions please do not hesitate to contact us using the details on page 46.

With best wishes,
Dr David Large
Head of Department of Chemical and Environmental Engineering

Don’t forget to watch our videos from staff and students from across the Faculty of Engineering: www.nottingham.ac.uk/go/watch-engfaculty

Find out more from Dr David Large at bit.ly/drdavidlarge

Students working in Portland B Cafe, Portland Building, which is the hub of student life on University Park Campus.
Why study chemical and environmental engineering at Nottingham?

Study with us because:
• we are rated a top 10 UK chemical engineering department*
• industry engagement and industrial placements are a key feature of our courses
• our students get a hands-on approach in our extensive laboratory facilities
• you will be supported by a team of engineers and scientists with extensive teaching and industrial experience

Careers and industry
We encourage students to start building their careers from their undergraduate studies. To increase students’ awareness of challenges faced by industry, we use programmes of site visits, case studies and guest teachers from industry. Project work focuses on solving real industrial problems in chemicals manufacturing and processing, energy, environment, water and waste. With the purpose of increasing the industrial relevance of our course, an important focus of the department has been to improve the professional competence of our graduates, by training them in skills required by industry, under the guidance of engineering practitioners.

You will be encouraged to take an industrial placement and we have incorporated a year in industry option into our course structure, in order to allow you to do this during your studies.

We work with you from year one, to research different industry sectors and job roles and to identify the companies that fit with your ambitions and interests. To enhance your employability skills, training in CV-writing and preparing for your job interview is provided during meetings with your personal tutor.

You will also have the opportunity to join an Engineering Research Placement programme for the summer and work on a current, exciting research project using our technical facilities and labs. Many of these are sponsored by industry such as BP and will introduce you to challenging problems faced by industry.

Teaching and learning
For most students starting their university engineering education there is a mixture of euphoria and apprehension. To help you manage the learning transition, the core curriculum, delivered in years one and two, is taught by a team with a vast experience in teaching science and engineering to students in schools, colleges of further education, foundation and other university courses.

Our University is recognised for the use of technologies to enhance the student learning experience. In the department, the delivery of lectures and relevant material has been merged with the advancement of new teaching technology, and strategies are devised to help students learn using the mobile devices they are familiar with. To engage students in their own education, our lecture programme emphasises openness of outcomes, aiding students to see what they have learnt and why it is applicable. Situational contexts allow students to solve problems and continuous constructive feedback allows their development.

Successful completion of the core subjects gives access to further teams of staff who deliver the higher-level modules and project work within years three and four. These teams are built around areas of specialist knowledge and have staff who are world-leading experts in their field. Between them, they have many years of industry experience and professional collaboration with industry. They will help you develop professional skills and knowledge, indispensable for a career in chemical/environmental engineering.

Placement support
The Faculty of Engineering has a dedicated Industrial Placement Team who works closely with the Careers and Employability Service to support you in finding the right placement.

The placement team can offer:
• guidance on applying for placements
• employer events hosted in the faculty
• visits and support from academic staff while you are on placement
• help with your transition back to university life

For more information and to hear from some of our previous placement students, visit: www.nottingham.ac.uk/engineering/industrialplacement

"The University’s placements team send email alerts to students about placement opportunities. That’s how I heard about the role at GSK. I also received help developing my CV and cover letter which was really useful.”

Tazim Jaffer
MEng Chemical Engineering including an Industrial Year, third year

Skills development
From the very start of the course you will work in teams in one of the most extensive laboratory engineering facilities in the UK. You will learn the key skills in problem solving, but also the different roles that are needed for a team to function effectively. Throughout the course, you will gain the experience and confidence to manage increasingly complex projects, often with challenging timescales.

One of the most desirable skills that companies are looking for when recruiting graduates is the ability to apply theoretical knowledge to real industry problems. We adapt to industry needs by improving the professional competence of our graduates. You will become familiar with plant design, right from year one. You will learn how to use software such as AutoCAD and HYSYS at industry standard and you will apply these in the design, simulation and troubleshooting of plants and processes inspired by the reality of industry.

Our efforts to embed design in the course receive very positive feedback from students, who tell us that these activities are some of the best experiences in their studies. They are also highly valued by visiting engineers, who we invite to interact and discuss with students and share valuable experience.

Student support
By keeping student staff ratios small in tutorial and laboratory classes in the first two years, we are able to give immediate feedback and advice to students – essential for good progress. It also means we get to know students on an individual basis and can identify problems and offer support early on.

The tasks, assessments and feedback in tutorial sessions are vital for students’ understanding of how different aspects of the curriculum interlink. Tutorial support in years three and four is centred on design and development projects, where student staff ratios of 4:1 to 6:1 are common. The staff team is also on hand to discuss career options and give advice on placements and job applications.

"University can be quite daunting but it was really easy to transition from A levels thanks to the support from the staff. All the lecturers have an open door policy.”

Hemma Sangha
MEng Chemical Engineering including an Industrial Year, first year

Extracurricular opportunities
The Chemical and Environmental Engineering Society offers something different to you during your time at University. We offer fantastic opportunities to develop yourself, to make key industrial contacts and to inspire the next generation of engineers.

Throughout each year the society hosts a number of great social events. These include a formal dinner with over 20 companies attending, and, of course, the annual Frank Morton trip for a spectacular sports day involving chemical engineering departments from across the UK. We also offer competitive sports teams with weekly fixtures and training.

A large part of the society’s strength comes from volunteering. We are involved with the Science Technology Engineering Maths (STEM) ambassadorial scheme, offering an opportunity to visit schools and help with events held at the University, which are aimed at highlighting the benefits of pursuing a career in these disciplines.

In addition to the department, the society offers a great chance of making strong links with industry, which will help you in your search for summer placements, year in industry or a graduate position. The society is supported by a number of companies, which help make the events we put on more accessible to you while giving you a chance to talk to representatives from some of the biggest recruiters of chemical engineers.

Embedding design in the course
Find out more about design coursework from Associate Professor Seán Moran and first-year students at: bit.ly/embeddingdesign
Degree courses

At a glance
Cohort size: intake of 100-120 students for year one
Accredited by: courses are accredited by the Institution of Chemical Engineers and the Institute of Materials, Minerals and Mining
Teaching staff: 28 academic staff
Total undergraduate student staff ratio: 16:1
Teaching hours/contact time: average 25 hours per week contact time in years one and two; 25% practical lab activities and workshops in years one and two
Industrial placements: available to all students

Course flexibility
All our courses are available as three-year BEng and four-year MEng degree programmes. Both of these options will provide you with the same core engineering skills but the MEng option has greater innovative content, covering more advanced principles and with more substantial project components. MEng is the favoured option for those students wishing to pursue Chartered Engineer status. Your personal tutor will be available throughout your time at Nottingham to advise and guide you through the academic pathways available.

Year one
At Nottingham we are unique in that we run a common first year for chemical engineering and environmental engineering degree programmes. All chemical and environmental engineers work together in a common first year with extensive staff support and formative feedback mechanisms. Your course will start with the basics of fundamental engineering sciences including heat and mass transfer, fluid mechanics, design, safety and environmental aspects, and professional skills.

We use various methods of content delivery from problem-based learning to tutorials and lab classes. At the end of year one you will have the opportunity to transfer to any of the three courses offered by the department.

“It is important that our students have the opportunity to experience the wide variety of global opportunities, challenges and careers that are available to them within chemical and environmental engineering. This inevitably means that they may wish to alter the focus of their study or career direction based on their experiences in years one and two. We have made our courses as flexible as we can, to allow students to transfer between different streams or specialise in a particular area.”

Ed Lester
Professor of Chemical Technology

Find out more from Professor Ed Lester at: bit.ly/edlester
Illustration of the various course pathways in chemical and environmental engineering, including the optional industrial placements.

**Project work**

**Third year design project**

In year three, you will undertake a year-long group design project, in which you will work as a team of chemical and environmental engineers, to propose the design of a plant at industrial standard. Starting from given specifications, your group will propose and evaluate alternative process configurations, in competition with other groups, for winning a design contract. You will perform detailed engineering calculations to justify and improve your choices, to estimate the financial viability of the plant, as well as to assess the safety and environmental impact. Working as part of a group is an everyday occurrence for an engineer and this work has an important group component, designed to prepare you for your future career. This project will give you the opportunity to integrate and apply all the knowledge and technical skills that you acquired throughout the entire course.

“The year-three design project is based on a real industrial problem, and professional engineers support students at key stages throughout the year. The project is challenging, and reflects many of the tasks that are carried out by qualified process engineers in industry.

The support from department staff and industrialists has allowed students to bring the concepts and principles learned across the curriculum to add real value to their projects. The quality of the deliverables produced by the students is impressive, and Nottingham graduates are very well placed to embark on their future engineering careers.”

John Saunders
Director at Newtonian Engineering Ltd

**MEng research and design projects**

If you opt for a masters-level degree, you will further develop your knowledge and understanding of chemical/environmental engineering techniques and you will look into innovative current developments, during a year-long research and design project. You will be designing a solution to a problem defined in a project brief. You will develop a research proposal and you will undertake laboratory work to improve your initial design. This project will give you the opportunity to gain skills in research, advanced design and critical analysis. You will also experience some of the state-of-the-art research delivered at our University, underpinning some of the challenges of our society.

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<table>
<thead>
<tr>
<th>Degree title</th>
<th>UCAS code</th>
<th>Duration</th>
<th>A levels</th>
<th>IB</th>
<th>Places</th>
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<tbody>
<tr>
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<td>H810</td>
<td>3 years</td>
<td>AAA</td>
<td>36</td>
<td></td>
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<tr>
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<td>H800</td>
<td>4 years</td>
<td>AAA</td>
<td>36</td>
<td></td>
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<td>H81B</td>
<td>4 years</td>
<td>AAA</td>
<td>36</td>
<td></td>
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<tr>
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<td>H81D</td>
<td>5 years</td>
<td>AAA</td>
<td>36</td>
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<tr>
<td>BEng Environmental Engineering</td>
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<td>3 years</td>
<td>AAA</td>
<td>36</td>
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<tr>
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<td>AAA</td>
<td>36</td>
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<tr>
<td>BEng Environmental Engineering including an Industrial Year</td>
<td>H808</td>
<td>4 years</td>
<td>AAA</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>MEng Environmental Engineering including an Industrial Year</td>
<td>H80X</td>
<td>5 years</td>
<td>AAA</td>
<td>36</td>
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<tr>
<td>BEng Chemical Engineering with Environmental Engineering</td>
<td>H8HF</td>
<td>3 years</td>
<td>AAA</td>
<td>36</td>
<td></td>
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<tr>
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<td>4 years</td>
<td>AAA</td>
<td>36</td>
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</tr>
<tr>
<td>BEng Chemical Engineering with Environmental Engineering including an Industrial Year</td>
<td>HVH2</td>
<td>4 years</td>
<td>AAA</td>
<td>36</td>
<td></td>
</tr>
<tr>
<td>MEng Chemical Engineering with Environmental Engineering including an Industrial Year</td>
<td>H8HD</td>
<td>5 years</td>
<td>AAA</td>
<td>36</td>
<td></td>
</tr>
</tbody>
</table>

*100-120 places for all courses in the Department of Chemical and Environmental Engineering.
Chemical Engineering

Year one
Common first year (see page 8).

Year two
We build on year-one fundamentals by looking at applied-process engineering such as reaction engineering, separations, plant design and computer systems. Links to industry will increase. Safety and environmental aspects are an important part of year two, which will also see you becoming more independent in your approach to learning.

At the end of year two you will decide whether to study for the BEng or MEng course, take a year out, work in industry or study abroad (see page 27).

Year three
Year three will enable you to see how fundamental and applied knowledge allows you to control and/or design processes. Lab exercises are more open-ended, using larger-scale and industrial equipment. As well as technical content, business and management will be covered with significant input from industrial figures.

You will undertake an industry-led group design project that simulates a commercial environment in which companies tender for a design contract. This project will allow you to develop and demonstrate skills and competencies necessary to be a professional chemical engineer.

At the end of year three MEng students can take a year in industry placement.

Year four (MEng only)
You will be able to choose optional advanced modules, and specialise in a particular area according to your career choice. By year four you will emerge as an independent learner, developing specialist expertise through optional module choices. You will tackle a wide variety of complex, multidisciplinary problems and more advanced chemical engineering concepts. You will take on a year-long project to develop advanced design practices and give you experience in developing new products and processes. You will also develop the more advanced skills that set masters-level students apart from other graduates.

By the end of the course
You will have developed your knowledge of science and engineering, together with a wide range of transferable skills including IT, communication, analysis, problem solving, team working and management. As an allrounder, you will be highly soughtafter by companies worldwide to work in areas such as process and product design, management and consultancy.

Accreditation
This degree has been accredited by the Institute of Chemical Engineers under licence from the UK regulator, the Engineering Council. Accreditation is a mark of assurance that the degree meets the standards set by the Engineering Council in the UK Standard for Professional Engineering Competence (UK-SPEC). An accredited degree will provide you with some or all of the underpinning knowledge, understanding and skills for eventual registration as an Incorporated (IEng) or Chartered Engineer (CEng). Some employers recruit preferentially from accredited degrees, and an accredited degree is likely to be recognised by other countries that are signatories to international accords.

BEng/MEng Chemical Engineering (H810/H800/H81B/H81D)

<table>
<thead>
<tr>
<th>Year one</th>
<th>Year two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basics of process engineering</td>
<td>Applied process engineering</td>
</tr>
<tr>
<td>Physics and process chemistry; design fundamentals; engineering maths; chemistry and the environment; heat and mass transfer; fluid mechanics.</td>
<td>Catalysis; phase behaviour; plant design; process engineering project; separation processes; waste management; maths techniques; materials; interfacial chemistry.</td>
</tr>
<tr>
<td>Year three</td>
<td>Year four (MEng only)</td>
</tr>
<tr>
<td>Process design and control</td>
<td>Advanced chemical engineering</td>
</tr>
<tr>
<td>Process dynamics; reactor design; multicomponent systems; transport processes; project management; lab project; industrial process analysis; design project; biochemical engineering.</td>
<td>Multiphase systems, advanced reaction engineering; computational methods; rheology and materials; process synthesis and design; advanced biochemical engineering; power generation and carbon capture; petroleum engineering.</td>
</tr>
</tbody>
</table>

Industrial placements are usually undertaken at the end of year two for the BEng programme or after year three of the MEng programme.

Inter-campus exchanges available
Malaysia

"Learning how to work in groups is really important in engineering – I definitely think these softer skills developed on the course have helped me when applying for placements."

Christopher Paphitis
MEng Chemical Engineering including an Industrial Year, third year
Environmental Engineering

Year one
Common first year (see page 8).

Year two
A central part of year two is the field course where you’ll spend a week out in various locations gaining experience of the exciting challenges encountered by environmental engineers. You will also be developing your skills as an independent learner, sourcing material and content outside of lectures and practicals.

At the end of year two you will be able to choose between the BEng or MEng courses, take a year out, work in industry or study abroad (see page 27).

Year three
Year three will allow you to see how fundamental and applied knowledge allows you to measure and remediate environmental issues such as air pollution and waste water. You will also tackle an environmental project in a topical area requiring environmental engineering solutions. Energy and sustainability also remain key priorities. As well as technical content, business, management and accounting is covered with significant input from industrial figures. You will also be able to choose an optional module allowing you to specialise in a particular area according to your career choice.

Year four (MEng only)
You will be able to choose optional modules, and specialise in a particular area according to your career choice. By year four you will emerge as an independent learner, developing specialist expertise through optional module choices. Contaminated land and resource management are key subjects and your individual design project will be the major piece of work that calls on all the environmental skills and knowledge acquired in the previous three years. This is the year that will allow you to develop the more advanced skills that set masters-level students apart from other graduates.

By the end of the course
You will have developed your knowledge of science and technology at the heart of environmental engineering, together with a wide range of transferable skills including IT, communication, analysis, problem solving, team working and management. As an all-rounder, you will be highly sought-after by companies worldwide to work in areas such as environmental monitoring and remediation, management and consultancy.

Accreditation
This degree has been accredited by the Institute of Materials, Minerals and Mining under licence from the UK regulator, the Engineering Council. Accreditation is a mark of assurance that the degree meets the standards set by the Engineering Council in the UK Standard for Professional Engineering Competence (UKSPEC). An accredited degree will provide you with some or all of the underpinning knowledge, understanding and skills for eventual registration as an Incorporated (IEng) or Chartered Engineer (CEng). Some employers recruit preferentially from accredited degrees, and an accredited degree is likely to be recognised by other countries that are signatories to international accords.

BEng/MEng Environmental Engineering (H806/H805/H808/H80X)

<table>
<thead>
<tr>
<th>Year one</th>
<th>Year two</th>
</tr>
</thead>
<tbody>
<tr>
<td>Basics of process engineering</td>
<td>Environmental techniques</td>
</tr>
<tr>
<td>Physics and process chemistry; design fundamentals; engineering maths; chemistry and the environment; heat and mass transfer; fluid mechanics.</td>
<td>Hydrogeology; plant design; environmental assessment and site investigation; waste management; maths techniques; materials.</td>
</tr>
<tr>
<td>Year three</td>
<td>Year four (MEng only)</td>
</tr>
<tr>
<td>Pollution and remediation</td>
<td>Advanced environmental process engineering</td>
</tr>
<tr>
<td>Process dynamics; reactor design; lab project; transport processes; project management; design project; air pollution.</td>
<td>Contaminated land; water treatment engineering; environmental risk assessment; natural hazards; wind engineering; air pollution; computational methods.</td>
</tr>
</tbody>
</table>

Industrial placements are usually undertaken at the end of year two for the BEng programme or after year three of the MEng programme.

Inter-campus exchanges available
Malaysia

Student profile
Daryl Best
On industrial placement

“The technical knowledge gained during the course plus the skills I have developed in project management have really come to the fore during my placement.”

Find out more about Daryl’s experience at:
bit.ly/darylbest
Chemical Engineering with Environmental Engineering

Year one
Common first year (see page 9).

Year two
We build on year-one fundamentals by looking at applied process engineering such as reaction engineering, separations, plant design, process control and computer systems. Links to industry will increase. Safety and environmental aspects are an important part of year two, with a particular focus on site investigation and analytical measurement.

A central part of year two is the field course, where you’ll spend a week out in various locations gaining experience of the exciting challenges encountered by chemical and environmental engineers.

At the end of year two you will be able to choose between the BEng or MEng course, take a year out, work in industry or study abroad (see page 27).

Year three
Year three will show you how fundamental and applied knowledge allows you to control and/or design processes and the environmental aspects treatment. Lab exercises are more open-ended, using larger-scale and industrial equipment. As well as technical content, business and management are covered with significant input from industrial figures. You will also be able to choose optional modules, allowing you to specialise in a particular area according to your career choice.

You will undertake an industry-led group design project, which will simulate a commercial environment where companies tender for a design contract. This project will allow you to develop and demonstrate skills and competencies necessary to be professional chemical engineers.

At the end of year three MEng students can take a year in industry placement.

Year four (MEng only)
You will be able to choose optional modules, and specialise in a particular area according to your career choice. By year four you will emerge as an independent learner, developing specialist expertise through optional module choices. You will also be tackling a wide variety of complex, multidisciplinary problems (such as air pollution monitoring and remediation) and more advanced chemical engineering concepts. The final-year will also allow you to take on a year long project to develop advanced design practices and give you experience in developing new products and processes. Year four will give you the opportunity to develop the more advanced skills that set masters-level students apart from other graduates.

By the end of the course
You will have developed your knowledge of science and engineering, together with a wide range of transferable skills including IT, communication, analysis, problem solving, team working and management. As an all-rounder with experience in process and environmental engineering, you will be highly sought-after by companies worldwide to work in areas such as process and product design, management and consultancy.

Accreditation
This degree has been accredited by the Institute of Chemical Engineers under licence from the UK regulator, the Engineering Council. Accreditation is a mark of assurance that the degree meets the standards set by the Engineering Council in the UK Standard for Professional Engineering Competence (UK-SPEC). An accredited degree will provide you with some or all of the underpinning knowledge, understanding and skills for eventual registration as an Incorporated (IEng) or Chartered Engineer (CEng). Some employers recruit preferentially from accredited degrees, and an accredited degree is likely to be recognised by other countries that are signatories to international accords.

BEng/MEng Chemical Engineering with Environmental Engineering (H8HF/H8H2/HVH2/H8HD)

Year one
Basics of process engineering
Physics and process chemistry; design fundamentals; engineering maths; chemistry and the environment; heat and mass transfer; fluid mechanics.

Year two
Applied process engineering in the environment
Environmental assessment and site investigation, phase behaviour; plant design; separation processes; waste management; maths techniques; materials.

Year three
Sustainability and process design
Process dynamics; reactor design; multicomponent systems; transport processes; project management; design project; air pollution; water treatment.

Year four (MEng only)
Process engineering solutions and environmental monitoring
Multiphase systems; advanced reaction engineering; computational fluid dynamics; advanced project; rheology and materials; process synthesis and design; petroleum engineering; water treatment engineering; air pollution; computational methods.

Industrial placements are usually undertaken at the end of year two for the BEng programme or after year three of the MEng programme.

Student profile
Hon Wong
MEng Chemical with Environmental Engineering

“I have a job offer with BP, in process engineering. In the job application I had to attend a technical interview. This was very similar to the final part of my third-year design project assessment: sit down with my team and explain to two lecturers the technical decisions for our design. This experience really prepared me for the job interview with BP.”

Find out more about Hon’s experience at: bit.ly/honwong
Degrees with a year in industry

A year in industry is a fantastic opportunity for students to practise and develop their engineering skills, thus providing valuable professional experience which is a key step on the road to Chartered Engineer status.

Benefits
A year in industry will also give a significant boost to both employment and academic prospects. Research previously conducted by High Fliers Research, showed that more than a third of graduate jobs are being filled by candidates who already have work experience with that employer. Getting a year in industry placement is therefore a great way into the job market after graduation. In addition, research has shown that the skills and maturity which students develop while out on placement have a positive impact on their final degree results, which of course further enhances employability.

Features
Year in industry placements are usually undertaken in the UK, but can be anywhere in the world in companies from major global organisations to smaller consultancies and technology specialists. Students registered on the BEng programme undertake their year in industry between years two and three of the taught course while MEng students usually do their placements between years three and four.

During a year in industry placement, students are classed as employees of the host company, and receive a salary. There is a nominal fee for the placement year and students remain fully registered with the University during this time.

Support
Our dedicated Industrial Placement Team works closely with the Careers and Employability Service to support you in finding the right placement. Companies that our students have previously undertaken placements with include Sellafield, British Gypsum, ExxonMobile, Total and Promethean Particles Ltd.

The benefits of a year in industry are well recognised, and as such our degrees with an industrial year are very popular. Likewise, securing a year in industry placement is a highly competitive process, and students are responsible for submitting their own applications, which may include attendance at interviews and assessment centres. We therefore expect students to commit additional time over and above their academic studies to this process.

In return, we offer a tailored programme of support to all our year in industry students so that they can prepare the strongest possible placement applications. Students on degrees with an industrial year attend dedicated workshops where they will identify their areas of interest and learn how to showcase their skills and experience. We hold CV-writing and mock interview sessions, with input from practising engineers and recruiters, to help students prepare for this next vital step on the career ladder. We also arrange for companies from a range of industry sectors to visit us on campus and give presentations on the range of placement opportunities available.

The support continues while on placement. Students are allocated an industrial tutor who will visit them in the workplace at least once and is always available should issues arise. Industrial tutors keep students up to date with departmental information so that they do not miss out while on placement. They also guide placement students on how to document their skills and experience in line with the requirements of the IChemE, so that the placement year can propel students towards Chartered Engineer status.

In addition, we encourage our year in industry students at all stages of their degree to participate in mentoring and peer networking activities, which help to manage the transition from campus to workplace and back again.

A year in industry experience
Cosmin-Florin Florea
MEng Chemical Engineering including an Industrial Year

“During my year in industry, working in the Research and Development team at Transvac, I was assigned to conduct a series of tests to optimise the Liquid Jet Compressor line that the company manufactures. The project was a success and Transvac changed their design standards as a result of my work.”

Cosmin working on placement at Transvac, Alfreton.

Department of Chemical and Environmental Engineering
www.nottingham.ac.uk/chemenv
The main forms of teaching you will encounter are lectures, practical sessions and project-work. These are supplemented by problem solving classes and tutorials.

For a typical week in your first year you can expect to attend about 20 hours of lectures and about five hours of other classes for laboratory, design and project sessions. For the rest of the time you are working independently, doing the necessary reading in preparation for lectures and coursework.

All year-one students undertake two practical assessment weeks (one each semester), where students work in teams and under time constraints to deliver practical solutions to set problems. Students will also learn about industrial scale problems from organised site visits and develop their time management skills through group projects. Design skills are embedded in the course which students have the opportunity to apply throughout the course modules. Several of our modules include industry-based case studies and guest speakers from industry.

All students have a personal tutor. Tutorials take place initially on a weekly basis, typically in groups of eight to 10 students in the first year. Tutors review your academic progress each semester and are also available to help with any personal matters. Tutorials can help to develop your communication skills, personal organisation and planning towards graduate employment.

The department also has a Learning Community Forum where student representatives from each year group take part in meetings with academic staff where they are able to give their views on modules, the department and general university life.

As you progress through the course, in addition to the engineering skills you acquire, you will learn a number of generic communication skills such as report writing and oral presentations.

**Key Information Sets**

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 data is published on the Unistats website: www.unistats.co.uk

For Nottingham’s KIS data, please see individual course entries at www.nottingham.ac.uk/ugstudy

“We teach students how to design from year one. They learn how to use industry programs such as AutoCAD and how to use engineering drawings like process flow diagrams.”

**Vernon Collis**

Assistant Professor of Chemical and Environmental Engineering
How will I be assessed?

All undergraduate degree programmes in the University are modular, which means you undertake modules of study with assessment at the end of each semester. Each module is designed to provide the competency necessary for you to function as a chemical or an environmental engineer in industry.

Assessment methods
Your learning will be assessed in different ways according to the learning objectives. Most modules will be assessed using a mixture of coursework and exams with the proportion varying depending on the module. Some modules such as projects don’t have any exams. In some cases you might be asked to give an assessed presentation.

An important part of learning comes through constructive feedback and you will receive written feedback on all your coursework. Formative assessment is an important part of the early years of the course.

As well as written exams we use e-learning approaches with quizzes and tests to help you learn and some e-assessments too.

Assessment is not all one-way: at the end of every module you will have the chance to fill in a questionnaire with your comments, helping us to ensure we are providing the best possible learning experience.

The teaching year
The teaching year is divided into two semesters. The first semester lasts for 14 weeks, with 12 weeks for teaching and revision and two weeks for assessment. The second semester follows the same pattern, but there are an additional two weeks at the end to complete the assessment process and to enable returning students to discuss their results with tutors and begin to plan the next session’s work.

Although the teaching year is divided into two semesters for organisational purposes, this is fitted into the traditional pattern of three terms: one before Christmas; one between Christmas and Easter; and one after Easter.

Your final degree classification
The highest degree classification you can get is first-class (typically for overall marks higher than 70%). Second-class is split into upper second class (2:1, typically for marks between 60% and 70%) and lower-second class (2:2, typically marks between 50% and 60%). A third-class degree is awarded for marks between 40% and 50%.

On BEng Chemical Engineering and BEng Chemical Engineering with Environmental Engineering courses (H810, H81B, H8HF and HVH2) your final degree classification is awarded based on your graduating mark, and this is made up of 30% of your second year mark and 70% of your third year mark. On BEng Environmental Engineering courses (H806 and H808), your final mark consists of 40% of your second year mark and 60% of your third year mark.

On MEng Chemical Engineering and MEng Chemical Engineering with Environmental Engineering courses (H800, H81D, H8H2 and H8HD), your graduating mark is made up of 20% from your second year, 40% from your third year and 40% from your fourth year. On MEng Environmental Engineering courses (H805 and H80X), your graduating mark is made up of 20% from your second year, 30% from your third year and 50% from your final year.
Career and employment prospects

The University of Nottingham is consistently named as one of the most targeted universities by Britain’s leading graduate employers.*

Our Careers and Employability Service offers a range of services including advice sessions, employer events, recruitment fairs and skills workshops – and even once you have graduated, you will have access to the service for life.

Careers in chemical engineering are creative and inspiring. The global challenges in energy, waste, food, water, health, sustainability and the environment means that there is a worldwide shortage of chemical and environmental engineering graduates.

Just about every product you use at home or at work has had some involvement in its creation from a chemical engineer; from obtaining the raw materials through to production and transporting the product to you.

Chemical engineers are involved in the design and development of desirable new products (from sun lotion to catalytic converters) and the design, modification and operation of processes to make those products.

Environmental engineers are key figures who provide sustainable solutions to problems ranging from the location of renewable energy installations, through to the development and implementation of recycling technologies.

Chemical and environmental engineers are concerned with solving some of the world’s most pressing problems, including developing cleaner and more sustainable energy sources, renewable materials and developing and manufacturing new drugs to cure the world’s diseases.

* Known destinations of full-time home and EU first-degree graduates, 2013/14.

Potential careers

**Design engineers**

Design engineers are responsible for the design and specification of all or part of a process. Examples could be the design of a new desulphurisation system for a coal-fired power station, specification of heat recovery equipment to reduce the carbon footprint in a food processing factory or the design of an entire pharmaceutical production process. As well as the technical chemical and environmental engineering knowledge, design engineers also need to consider safety, social, environmental, economic and sustainability factors in their designs. The UK is a major global centre for design engineers, and many of the major new build chemical processing complexes in the Far East are designed in this country.

**Operations engineers**

Operations engineers work on-site within a factory or processing complex. This role can also be referred to as process or production engineers. They ensure that the process is producing the right amount of product to the correct specification, and well within safety and environmental constraints. Operations engineers look for ways to improve the efficiency and safety of the processes that they run and are also responsible for managing and training technical teams and operators. Operations roles are found across all sectors, from waste management and recycling and water treatment through to petrochemical processing.

**Environmental engineers**

Environmental engineers are involved in the specification and design of technologies that maximise environmental benefit while minimising unwanted impact. Renewable energy, waste management and recycling technologies are all within the expertise of environmental engineers.

Project engineers

**Project engineers organise and manage projects. These can be anything from managing a small modification to an existing process or facility, to overseeing the building of a brand new multi-billion pound petrochemical complex. Whether they specialise in chemical or environmental, most project engineers will manage changes that make a process more energy efficient, reduce carbon footprint or minimise waste and environmental impact. Project engineers work on tight schedules, interacting with engineers and technicians from many different disciplines to rapidly solve problems and minimise delays and cost overruns. There are lots of opportunities to experience and work on a large number of different ventures, and the opportunity to travel and work all over the world.**

Development engineers

**Development engineers**

Development engineers may be involved in developing new products or processes. These might include: formulating new hand creams for a pharmaceutical manufacturer; developing gas/liquid separation systems; improving safety on offshore oil installations; or assessing new catalysts to reduce the environmental impact of a plastics manufacturing plant. Development engineers often work closely with scientists and research organisations to develop and trial new technologies. As companies look to new innovations to remain competitive, there is a significant demand for development engineers, particularly in the UK, USA and western Europe.

**Engineering consultants**

Engineering consultants have specialist knowledge in a particular field. For example, an environmental consultant may specialise in renewable energy, reviewing and identifying the most appropriate technologies and processes to meet the specifications and requirements of the client.

The skills of chemical and environmental engineers set them apart from other graduates. They are highly numerate with strong analytical skills. They work in teams to solve complex problems and challenges and can manage projects, people and resources. These skills make chemical and environmental engineers highly employable in non-technical roles. Industries such as banking, finance, business and management are employers of engineering graduates.

**Graduate employment**

In 2014, 94.9% of first-degree graduates in the Department of Chemical and Environmental Engineering who were available for employment had secured work or further study within six months of graduation. The average starting salary was £26,469 with the highest being £40,000.*

**Salaries**

Chemical and environmental engineers are well-paid. The median salary for 2014 graduate chemical engineers was £29,500.**

Chemical engineering regularly comes third in the ranking lists for graduate salaries for all subjects, behind only medicine and dentistry. In 2013, chemical engineers for the first time overtook medics as the second-best paid graduates in the UK, according to a survey by The Times.***

The University’s Careers and Employability Service

Our Careers and Employability Service, which is based on University Park Campus, offers an extensive range of careers-oriented services, including CV-writing sessions, interview advice, presentations by major employers and general career advice. As a University of Nottingham graduate, you will receive lifelong support from the service. This means that you can ask a careers adviser to look over your job application in person, by email or Skype and you can also access a database of graduate vacancies.

For more information see

www.nottingham.ac.uk/careers

The Nottingham Advantage Award

The University’s Advantage Award is a programme of activities developed to recognise and reward extracurricular responsibilities. It allows you to gain recognition for participating in a wide range of activities accredited by the University and delivered by top graduate employers, professional services and members of staff of the University. It also shows employers that you have gone above and beyond your degree and gained valuable transferrable skills. For further information, please visit

www.nottingham.ac.uk/careers/advantage

www.nottingham.ac.uk/chemenv

www.nottingham.ac.uk/chemenv

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*** The Times, 2014.
The University of Nottingham is a truly international university with campuses in China and Malaysia. The Faculty of Engineering seeks to emulate this philosophy by offering our students the opportunity to participate in exchange programmes all over the world. The faculty is constantly working to ensure our graduates gain an advantage when they go into the job market; we see study abroad as another way to make our graduates stand out from the crowd.

Studying abroad provides students with the unique opportunity to:

• see your academic subject from a different perspective in a new academic environment
• acquire invaluable life skills
• meet a wide variety of people and make an international network of friends
• discover new strengths and abilities, conquer new challenges and solve new problems
• gain global awareness to prepare yourself for a career abroad

The faculty participates in the following exchange schemes:

• Universitas 21 (U21)/University-wide exchange
• inter-campus exchange to China and Malaysia
• Erasmus exchange

These cover institutions from America, Australia, Canada, Germany, the Netherlands, New Zealand, Singapore and Sweden. Your choice of exchange partner will depend on your department and the course you are registered on. Eligibility for exchange schemes will also depend upon meeting academic criteria.

Malaysia
The University of Nottingham Malaysia Campus (UNMC) opened in September 2000 to become the first branch campus of a British university in Malaysia, and one of the first in the world. A friendly atmosphere, world-class teaching and extensive facilities make it a popular choice for Malaysian and international students, as well as exchange students from Nottingham; with more than 5,000 students from over 70 countries.

The Malaysia Campus is situated near the town of Semenyih, a 45-minute drive from the capital Kuala Lumpur. Occupying a scenic position overlooking green hills on a 101-acre site, and designed to mirror the attributes of University Park Campus in the UK, the campus is a self-contained and self-sufficient neighbourhood village in a garden environment.

China
In 2004, Nottingham was the first foreign university to establish a campus in China. The University of Nottingham Ningbo China (UNNC) offers the same high standard of teaching as the UK campuses and has internationalisation at its heart: of more than 6,000 students there are more than 300 international students from at least 55 countries.

The China Campus is situated in Ningbo, a city of over five million people situated on the east coast of China. Ningbo is less than two hours by train from Shanghai and the campus at Ningbo provides accommodation, sports facilities and a shopping street.

If you do decide to apply to study abroad, the University’s International Office will offer support from the application stage right through to your return to the UK, with advice on everything from immigration to possible sources of financial support. Find out more: www.nottingham.ac.uk/studyabroad
“Emphasis is on teamwork, for example during the practical assessment weeks, we are set practical tasks and have to come up with solutions as a team. Teachers are very approachable and supportive, you can go and talk to them and they would help you anytime.”

Sajalu Dahal, first-year student
Chemical Engineering with Environmental Engineering including an Industrial Year

Watch students talking about their first year studying in the Department of Chemical and Environmental Engineering

Rachel Brett bit.ly/rachelbrett
Sajalu Dahal bit.ly/sajaludahal
Graduate profiles

The skills that our students learn, develop and demonstrate during their time with us sets them apart from other graduates. Many of our students have job offers after industrial placements or at the beginning of their final year. Over 80% go directly into engineering-related careers across the full range of industry sectors. Examples of high-profile employers of our graduates include Air Products, Atkins, Bechtel, Centrica, Jacobs, Lafarge, L’Oreal, Nestle and Procter & Gamble, as well as a host of smaller consultancies and contracting firms.

“My time at Nottingham gave me a strong platform to perform at a professional level, equipping me with not only the technical skills I needed, but with the chance to develop aspects of leadership through giving presentations and leading group tasks, and the more practical elements of the course. Just as importantly, Nottingham supported my desire to take a year out and complete an industrial placement and kept in contact during my time away. My Nottingham experience set me up to succeed as a graduate and equipped me with the tools to continue to develop long into the future.”

David Taylor
Process Engineer, BP Chemicals
MEng Chemical Engineering (2008)

“The course at Nottingham prepared me well for a career in the chemical engineering sector. The design projects in particular, gave me a real flavour of the practical work and knowledge that is required to support the academic fundamentals. It is important to appreciate the whole range of skills needed to work in engineering which includes technical and professional skills alongside academic knowledge.

I took an extra year in my course in order to do a 12-month placement with ExxonMobil at their Fawley refinery and then came back to university for my final year, knowing that I had a job waiting for me at the end. I am now currently back at Fawley working as a design engineer for ExxonMobil. I would advise anyone thinking about chemical engineering to consider Nottingham and to think about doing either a year or summer internship, as it gave me a big advantage in a competitive industry to secure a job.”

James Horner
Design Engineer, ExxonMobil
MEng Chemical Engineering (2013)

“When I attended Nottingham for my interview I immediately knew I wanted to study at the University. The campus setting was amazing and it was somewhere I knew I would be happy to spend my university years. The friendly staff and students only embedded this into me further. You have to see it, to feel it – there is simply a buzz around campus. It’s the Nottingham experience!”

Kamlesh Vadukul
Heating and Renewables Specialist, Daikin
BEng Environmental Engineering (2008)

“The environmental engineering course was very attractive as there were so many different disciplines that it could lead to. The increasing profile of environmental issues made me think that it could present many exciting opportunities in the future, as well as providing good job satisfaction. My final-year project was a review of ground source heat pump systems, including example designs. During the project I had the opportunity to go on site visits and meet various people in the industry.”

Philip Harrison
Engineering Consultant, WorleyParsons
MEng Environmental Engineering (2005)

“The chemical engineering course at Nottingham was a well-grounded degree, with exposure to many aspects of the real engineering world. The skills are transferable to many different sectors of society, both within and outside of the world of chemical engineering. I particularly enjoyed the laboratory R&D project and the final-year design project. Both of these started with a very limited definition which allowed my group and me to decide the direction and detail of the work to achieve the final goal.”

Kieran Channon
Production Support Engineer, Dow Corning
MEng Chemical Engineering (2007)
Staff profiles

Dr Anca Pordea graduated as a chemical engineer in France, and completed her PhD in Switzerland. After three years of postdoctoral experience, she joined The University of Nottingham in 2012 as a lecturer, where she teaches core chemical engineering separation processes, as well as biochemical engineering methods.

"I research the sustainable synthesis of chemicals, in particular the fine chemicals that are used in the pharmaceutical, agrochemical or flavour and fragrances industries. One of the problems we face is that many of the existing processes for fine chemicals manufacturing are energy-consuming and waste-producing. However, when it comes to chemicals synthesis, there are some amazing examples of efficiency and waste minimisation found in nature. My research uses this as inspiration to develop biotechnological approaches to design efficient catalysts for improving chemicals synthesis."

Dr Anca Pordea
Lecturer in Chemical Engineering

Dr John Robinson teaches process engineering and design in the department. He obtained his PhD in 2004, while working as a research engineer in Downstream Process R&D at Shell. He then joined The University of Nottingham in 2005, working as a researcher and developing a process to reduce the environmental impact of offshore drilling activities. John is also the Director of Admissions for the Faculty of Engineering.

"My work is in the area of sustainable materials processing. I am particularly interested in developing processes that require less energy, are more efficient, produce less CO₂ and utilise feedstocks that have a lower environmental footprint than conventional methods."

Dr John Robinson
Associate Professor

Dr Rachel Gomes graduated with a PhD award in 2007 from Imperial College London, where she also received the Wellcome Trust Value in People Award and was one of the ‘100 women, 100 visions’ celebrating women scientists and engineers. She obtained an Anne McLaren Fellowship to continue her research, and joined the Faculty of Engineering as a lecturer in 2011 to teach water and wastewater treatment engineering.

"My research is in adaptive bioprocessing, and I look at sustainable use of resources for wastewater treatment and chemical processes, with a particular focus on bioactive chemicals. This research is informed by industry needs, and my group seeks to manage and treat wastes to enable reuse within the industrial process, value recovery from waste streams and release into environmental systems. The University of Nottingham is perfectly suited to support and develop this work, being located close to fascinating wastewater treatment plants – ideal for site visits and industry-relevant research."

Dr Rachel Gomes
Lecturer in Chemical and Environmental Engineering

Dr Buddhi Hewakandamby graduated in Sri Lanka with a BSc in chemical engineering, and worked briefly as an engineer at Unilever before receiving an MPhil from The University of Manchester Institute of Science and Technology (UMIST). In 2002, he completed a PhD at The University of Sheffield. He joined The University of Nottingham in 2008 as a lecturer, where he teaches reactor design and transport phenomena.

"As a researcher, I study the physics of multiphase flow, which is commonly encountered in a wide range of process industries, but is still the least understood area of fluid flow. In multiphase flow, the fluid structures change continuously and it is difficult to develop predictive models for process designs. Our approach is to couple mathematical modelling and simulations together with measurements to identify dominating physical parameters."

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Dr Buddhi Hewakandamby
Lecturer in Chemical Engineering
Postgraduate opportunities

The modern world is evermore reliant on innovative technology – to make products, harvest and conserve resources and use energy efficiently. The Department of Chemical and Environmental Engineering is a leading European centre for research and teaching necessary to enable the development of such creative and efficient technologies.

The department has pioneered an innovative approach to teaching and student support. Our students undertake a series of challenging and exciting tasks and projects. We have a structured support framework in place to allow students to address these challenges, and to develop the advanced technical competence that will distinguish them from other postgraduate students and engineers.

Staff in the department have a wide range of backgrounds and industrial experience, from dedicated teachers to technical specialists and world-leading researchers. Industry plays a key role in the activities of the department, and provide the stimulus for cutting-edge research, development and design projects around themes in energy, sustainability and the environment.

We currently offer the following postgraduate taught courses:
- MSc Chemical Engineering
- MSc Environmental Engineering
- MSc Efficient Fossil Energy Technologies

For more information about our postgraduate taught courses, see www.nottingham.ac.uk/pgstudy/chemenv

The MEng and MSc programmes also provide foundations for further study to PhD level and pursuit of a career in research.

The University has a portfolio of Doctoral Training Centres funded by the UK Research Councils. These centres provide cutting-edge doctoral study, combined with a supportive and exciting working environment, in a variety of research areas such as fossil energy, biotechnology and sustainable chemicals processing.

For information about research in the faculty see www.nottingham.ac.uk/engineering/research

PhD student Anike Akinrinlade works in the L4 laboratory, on value recovery from waste streams.
You’ve read lots about the degree programme you’re interested in, now it’s time to explore life outside the lecture theatre. There’s so much for you to get involved in and explore at the University and around the city. We are proud to be one of the leading universities for student experience in the UK*, which will ensure that you have a university experience you’ll never forget.

Your University of Nottingham – at home and around the world

We are proud of our stunning campuses and are continually investing in our grounds, buildings and amenities to ensure that you only have the best surroundings in which to live and study. Our main UK campuses have a mix of state-of-the-art facilities, including sports centres, places to eat and excellent learning facilities on every campus.

We’ve made getting from campus to campus as easy as possible and students can benefit from our free inter-campus Hopper Bus, so you’re never far away from the striking architecture and innovative technology of Jubilee Campus, the rolling parkland and period buildings at University Park, or the cutting-edge features of Sutton Bonington.

The University of Nottingham is Britain’s global university with campuses in the UK, China and Malaysia. We also have links with more than 300 universities in over 40 countries, adding a truly global flavour to your degree and giving you the chance to explore the world. Find out more: www.nottingham.ac.uk/about/campuses

Your new home from home

At Nottingham we offer a range of different accommodation options, rooms are available as single or shared, en suite or shared bathroom, all the way through to studio flats, and vary from self-catered to fully catered (19 meals per week). We also offer a guarantee of University accommodation for one year to all new full-time undergraduate students, subject to the following conditions: you firmly accept your course place at Nottingham, accept your offer of accommodation by the deadline given in your offer letter, and have an unconditional status no later than 31 August in the year you intend to begin your studies.

If you are a new, full-time undergraduate student who is classified as international for fee purposes, this guarantee applies for three years**. For more information, including a breakdown of pricing, see www.nottingham.ac.uk/accommodation

Your support network

Throughout your university journey there will be numerous people on hand to support you, including tutors and dedicated staff who will be able to advise you on various aspects of life as a student.

We have Student Services Centres on all three of our UK campuses, which provide a range of support, information and specialist services to enhance your student experience. This support includes:

- **Academic Support** – can provide practical advice on areas of academic study; the service also provides specialist academic support for students with dyslexia, dyspraxia and other specific learning difficulties
- **Disability Support** – coordinates support and access arrangements for students with a disability or long-term medical condition
- **Financial Support** – provides information on the sources of finance available from government agencies and the University itself, and gives advice about financial matters
- **Student Services** – also advise on issues ranging from childcare, counselling and health to international student support, chaplaincy and faith support, as well as offering advice on paying your tuition and accommodation fees

Whatever you may need support with, they will either be able to help or point you in the direction of someone who can. Find out more: www.nottingham.ac.uk/studentservices

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** Providing you submit your returners’ application in line with the requirements of the accommodation providers.
Getting involved in your Students’ Union

As soon as you start at The University of Nottingham, you are automatically enrolled as a member of our Students’ Union, which is considered to be one of the best in the country. There are hundreds of activities that you could be part of, providing you with the perfect opportunity to take up a new hobby or pursue existing interests. Choose from over 200 student-run societies, covering all interests and abilities, as well as local and national volunteering projects, to which you can commit as much or as little time as you wish.

Our Students’ Union is home to a number of award-winning student-run media groups, which give you the chance to gain practical work experience both behind the scenes or centre stage as a presenter, actor or journalist. The Nottingham New Theatre, Impact magazine, Nottingham Student Television (NSTV) and University Radio Nottingham (URN) have all been recognised as the best in their field, winning a clutch of awards for outstanding achievements.

However you decide to become involved in the Union, you can be sure you will make new friends and learn new skills, all while having a lot of fun! Find out more: www.su.nottingham.ac.uk

Exploring your new city

With Nottingham city centre just a 10-minute bus ride away from University Park Campus, our students are always close to the action. Buses run through campus regularly and many run late-night services too, which is handy if you’re a night owl.

For music lovers, you can take your pick from the world-famous Rock City, Capital FM Arena or one of the smaller gig venues for a more intimate live show. Nottingham is rich in performance venues, with comedy clubs and theatres catering for lovers of drama, musicals, ballet and panto. We are very proud of our sporting heritage, and with football clubs Nottingham Forest and Notts County in the city, as well as Trent Bridge cricket ground and the National Ice Centre on your doorstep, you might just become a sports fan if you’re not one already.

History and culture can be found in all corners of the city, with Nottingham Castle, Nottingham Contemporary arts centre, the Galleries of Justice Museum, Nottingham Lakeside Arts – the University’s public arts centre located on our University Park Campus, art house cinemas and three of the world’s oldest pubs all providing points of interest. If you enjoy shopping, Nottingham is perfect for you; independent boutiques and vintage shops in the bohemian area of Hockley mix with high street names in our large shopping centres to make Nottingham a veritable shopping haven.

Find out more: www.nottingham.ac.uk/nottinghamlife
Download our city guide: www.nottingham.ac.uk/go/cityguide
Applying for a place

We are looking for students who have the ability and motivation to benefit from our courses, and who will make a valued contribution to the department and the University. Candidates for full-time admission are considered on the basis of their Universities and Colleges Admissions Service (UCAS) form. For more information on how to make your application stand out, have a look at our online prospectus: www.nottingham.ac.uk/ugstudy/applying

For tips and advice at every step of your application journey, visit our undergraduate applicants’ area: www.nottingham.ac.uk/ugapplicants

Application process
All applications for an undergraduate place to study at The University of Nottingham (including applications by overseas students) must be made through UCAS. Applications should be made online at www.ucas.com. Candidates will be notified of decisions through UCAS Track at track.ucas.com.

Entry numbers
For information on how many students the department plans to admit on each course, please see page 11.

The selection procedure
Selection of those applicants to whom we will make an offer will be based upon a combination of the candidate’s academic record and an assessment of all the information provided in their UCAS application form.

Academic attainment
Our minimum entry level requirements are A level score AAA or International Baccalaureate (IB) score 36.

Your personal statement
This is the section of your UCAS form that tells us the most about you, and you should make the best use of it. Be as specific and detailed as you can – we would like to see that you are a student who can work hard, be self-motivating and make the best possible use of the opportunities this course might have to offer you.

Required subjects
All courses: A level or Higher Level (IB) chemistry/physics and maths. General studies, critical thinking and citizenship studies not accepted.

Alternative qualifications
In this brochure you will find our A level entry requirements but we accept a much broader range of qualifications. These include:

• Access to HE Diploma
• Advanced Diploma
• BTEC HND/HNC
• BTEC Extended Diploma
• Cambridge Pre-U
• Irish Leaving Certificate
• Scottish Advanced Highers
• Welsh Baccalaureate Advanced Diploma
• A range of engineering foundation courses

This list is not exhaustive; we will consider applicants with other qualifications on an individual basis. The entry requirements for alternative qualifications can be quite specific; for example you may need to take certain modules and achieve a specified grade in those modules. Please contact us to discuss the transferability of your qualification.
Flexible admissions policy
In recognition of our applicants' varied experience and educational pathways, we employ a flexible admissions policy. If we judge that your situation has adversely affected your achievement, then we will consider this when assessing your academic potential. If you wish to mention information about your experiences in your personal statement, then you should ask the teacher or tutor writing your reference to confirm what you have written. We may ask for further evidence and may consider a range of factors. For more information, please see www.nottingham.ac.uk/go/admissionspolicies

Mature applicants
We encourage applications from mature students (which means all those aged 21 or over when the course begins). You should apply in the normal way through UCAS (unless you want to study part-time, in which case you should apply directly to the department). While we accept a range of qualifications, you should check our specific requirements on UCAS entry profiles. If in doubt, please contact the admissions tutor, who will be happy to answer any specific queries you have about applying as a mature student. Please email your questions to eng-student-support@nottingham.ac.uk

For more information about being a mature student, please see www.nottingham.ac.uk/mature

International applicants
We welcome applications from international students and have students from many parts of the world studying with us at undergraduate and postgraduate level. All international candidates for undergraduate courses should apply through UCAS.

The University's International Office offers guidance and advice on matters such as visa and immigration regulations, working and living in the UK, entry requirements and preparing for coming to Nottingham — and arranges a Welcome Programme for new international students each September. If you would like to visit the University and are unable to attend an open day, the International Office will be happy to arrange an individual visit for you. For further information please visit www.nottingham.ac.uk/studywithus/international-applicants

English language requirements
IELTS 6.0 (no less than 5.5 in each element).
For more information and a list of the alternative English language requirements we accept, please see www.nottingham.ac.uk/go/alternativerequirements

Preparing to study in English — academic English preparation and support
The University of Nottingham Centre for English Language Education (CELE) offers high quality academic English and study skills (presessional) programmes to prepare you to study your degree in English. Our programmes are designed to give international students excellent preparation for their academic studies and are taught by experienced, professional tutors.

CELE provides a range of programmes throughout the year, including five-week subject-specific courses (in some subjects) and a four-week course in September for students with unconditional offers, with a focus on academic study skills.

You can continue to benefit from academic English support with free classes and one-to-one consultations throughout your study (insessional programmes).

For more information about CELE, please visit www.nottingham.ac.uk/cele

Deferred entry
Applicants who wish to defer their entry by a year will not be at a disadvantage. Please tell us something about your plans for your gap year in your UCAS personal statement.

Equal opportunities policy
The University aims to create the conditions whereby students and staff are treated solely on the basis of their merits, abilities and potential, regardless of gender, race, colour, nationality, ethnic or national origin, age, socio-economic background, disability, religious or political beliefs, trade union membership, family circumstances, sexual orientation or other irrelevant distinction.

Department of Chemical and Environmental Engineering
www.nottingham.ac.uk/chemenv
Frequently asked questions

Can I switch between courses?
You can switch between Chemical Engineering/Chemical Engineering with Environmental Engineering/Environmental Engineering at the end of year one. You will be able to switch between BEng and MEng degrees at the end of year two.

How much practical work will I do?
Practical work is an integral part of the course and includes laboratory, field work and industrial visits. We use labs to develop analytical, problem-solving and team-working skills. The amount of practical work undertaken is high in the first year: typically 20% of the course.

What staff support is available during the course?
The department runs an academic tutorial system. First-year students see their tutor on a weekly basis. In later years tutors advise on module/course choices and career options. Personal tutors are also assigned to act in a pastoral role if necessary.

I haven’t studied the correct subjects – is there any way I can do engineering?
If you have not studied maths, chemistry or physics at A level you could consider applying for the Engineering Foundation Year Programme. For more information, please see www.nottingham.ac.uk/fees

What bursaries are available?
Although bursary figures for 2016/17 are yet to be finalised, the University will continue to offer a generous package of bursary support to students from lower income households. These are in addition to any support you may receive from the government. For more information please see www.nottingham.ac.uk/financialsupport or take a look at the funding tab on the relevant course entry in our online prospectus: www.nottingham.ac.uk/ugstudy

If you are an international applicant (outside of the EU), please see the ‘New international students’ section on www.nottingham.ac.uk/fees

The Faculty of Engineering offers International Undergraduate Scholarships for incoming undergraduate international students which comprise a fee reduction of £1,500 and ongoing yearly awards for students who meet the eligibility criteria. For more information, visit www.nottingham.ac.uk/engineering/funding

Can I still do a year in industry even if I am not enrolled on a degree with an industrial year?
Yes, you can transfer on to an industrial year course after you commence your degree.

What happens if I do not get a placement?
We will provide as much support as possible to obtain a placement, but if you do not manage to secure a placement we will transfer you to the relevant BEng or MEng degree.

How much will I earn on placement?
We ask that all employers offer at least the minimum wage to our placement students. However, some industry sectors offer considerably more generous salaries (over £25,000 per annum in some instances) plus help in finding accommodation.

What support do you offer for students with disabilities?
We are committed to promoting access for students who have a disability, dyslexia or a long-term medical condition. Services provided by the University aim to enable students to fulfil the inherent requirements of the course as independently as possible. The University’s Disability Statement, which lists services, facilities and opportunities available throughout the University can be viewed at www.nottingham.ac.uk/disability

What support is available for students with children?
There are a range of services provided to support students with children, including a University day nursery, a playscheme and playcentre day care. There is also a scheme to help students fund childcare. For more information, see www.nottingham.ac.uk/child-care

Visit our website for more frequently asked questions: www.nottingham.ac.uk/chemenv

To ask course-specific questions contact: eng-student-support@nottingham.ac.uk
Visiting and contacting us

Open days
If you're considering applying to The University of Nottingham we recommend that you try to attend one of the University-wide open days, which are held in June and September each year and attract around 30,000 visitors. Find out more: www.nottingham.ac.uk/opendays

Mini open days
Mini open days are much smaller than the main open days but offer the same opportunities to attend various talks and tours as well as speak to current students and academics. Find out more www.nottingham.ac.uk/go/miniopendays or call +44 (0)115 951 5559

UCAS visit days
Once you’ve been offered a place at Nottingham, you will be invited to attend a UCAS visit day, which is an opportunity for you to visit the department and to find out more about your chosen course. You will also be given a short tour of the campus by current students.

Virtual open day
If you can’t attend one of our open days in person, or would like to explore our campuses before visiting, take a look at our virtual open day: www.nottingham.ac.uk/virtualnottingham

Other visits
If you wish to make an informal visit to the University prior to applying here, you are welcome to do so, but you should contact us in advance if you wish to visit the department or speak to an admissions tutor, and we will do our best to oblige.

Contacting us
For further information please contact:
Mary Kar
Engineering Student Support Team
Engineering and Science Learning Centre
University Park
Nottingham, NG7 2RD
t: +44 (0)115 951 4081
e: eng-student-support@nottingham.ac.uk
w: www.nottingham.ac.uk/chemenv

For international student enquiries, please contact:
The International Office
t: +44 (0)115 951 5247
t: +44 (0)115 951 5155
e: international-office@nottingham.ac.uk
w: www.nottingham.ac.uk/international

You can also connect with fellow applicants and current students on our applicants’ Facebook and Twitter pages:

The University of Nottingham has made every effort to ensure that the information in this brochure was accurate when published. Please note, however, that the nature of the content means that it is subject to change from time to time, and you should therefore consider the information to be guiding rather than definitive. You should check the University’s website for any updates before you decide to accept a place on a course.

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