IChemE ADVANCING CHEMICAL ENGINEERING WORLDWIDE

Postgraduate chemical engineering courses

A guide to chemical engineering-related courses in the UK and Ireland

Contents

Introduction

This document provides information on postgraduate courses in the UK and Ireland available to those with a first degree in chemical engineering or a related discipline.

Information in this document has been supplied by the universities listed and all course enquiries should be directed to the university in the first instance.

The accreditation status of individual courses can be checked with the relevant university or with Engineering Council at www.engc.org.uk/acad

University of Aberdeen

Aberdeen is at the heart of the energy industry in Europe and of international importance as a centre of excellence in exploration and production of oil and gas. The combination of these factors makes it possible to offer a curriculum that is both influenced by the cutting-edge research of our academics and highly relevant to employers.

The School of Engineering offers a wide range of academically-challenging taught programmes of study and aims to provide each student with an engaging and supportive learning environment grounded in teaching and research excellence.

Taught courses

- **MSc Advanced Chemical Engineering**
  1 year full-time
- **MSc Advanced Mechanical Engineering**
  1 year full-time
- **MSc Advanced Structural Engineering**
  1 year full-time
- **MSc Decommissioning**
  1 year full-time
  27 months part-time online learning
- **MSc Offshore Engineering**
  1 year full-time
  27 months part-time online learning
- **MSc Oil & Gas Engineering**
  1 year full-time
  27 months part-time online learning
- **MSc Petroleum Engineering**
  1 year full-time
  27 months part-time online learning
- **MSc Process Safety**
  1 year full-time
  27 months part-time online learning
- **MSc Project Management**
  3 years part-time online learning
- **MSc Renewable Energy Engineering**
  1 year full-time
  27 months part-time online learning
- **MSc Safety and Reliability Engineering**
  1 year full-time/27-60 months part-time (on campus or online learning)
- **MSc Safety and Reliability Engineering for Oil & Gas**
  1 year full-time/27-60 months part-time (on campus or online learning)
- **MSc Subsea Engineering**
  1 year full-time
  27 months part-time online learning
- **MSc Global Subsea Engineering**
  1 year full-time

Entry requirements

Entry requirements will vary for each course, but the general rule is for applicants to possess a 2:1 (upper second class) UK honours degree (or an honours degree from a non-UK institution which is judged by the University to be of equivalent worth) in a relevant degree subject. For entry requirements specific to each course listed above please visit: www.abdn.ac.uk/engineering/courses/taught-postgraduate-studies-50.php

Research degrees

The University of Aberdeen has a large number of vacancies for funded and non-funded doctoral research degrees (PhDs). The school has also designed an EngD degree specifically for those interested in undertaking a challenging research investigation on an industrially-relevant project. For more details about research opportunities at the University of Aberdeen visit: www.abdn.ac.uk/engineering/courses/research-degrees-51.php

Contact details

Website: www.abdn.ac.uk/engineering
Email: cpsgrad@abdn.ac.uk
Tel: +44 (0)1224 272 090
+44 (0)1224 272 091

Aston University

Our modern, purpose-designed labs and teaching facilities include excellent IT facilities and a well-equipped pilot plant area. Tailored computing courses and self-tuition packages ensure the development of IT and word processing skills required by the modern chemical engineer or chemist. All computer workstations are linked by the University's Local Area Network, which in turn connects to worldwide networks.

Taught courses

- **MSc Professional Engineering**
  2 or 5 years work-based distance learning
- **MSc Engineering Management**
  1 year full-time
- **MSc Supply Chain Management**
  1 year full-time
- **MSc Engineering Leadership & Management**
  2.5 years part-time
- **MSc Supply Chain Leadership & Management**
  2.5 years part-time
- **MSc Mechanical Engineering**
  1 year full-time
- **MSc Computer Science**
  1 year full-time
- **MSc Artificial Intelligence**
  1 year full-time

Entry requirements

Entry requirements will vary depending on the course but generally, a good UK honours degree is a minimum requirement.

International students whose native language is not English will also need to demonstrate English language ability through an IELTS score of 6.0 overall with no less than 5.5 in each band.

Research degrees

Aston University has a range of research opportunities leading to either an MPhil or PhD qualification in fields such as bioenergy, product & supply chain management, engineering education and sustainable environment research to name a few.

For more details about research opportunities at Aston University please visit:
www.aston.ac.uk/eas/research/prospective-research-students

Contact details

Website: www.aston.ac.uk/eas/postgraduate

Email: pgadmissions@aston.ac.uk (taught courses)
seasres@aston.ac.uk (research)

University of Bath

Chemical engineering at Bath has a well-earned international reputation for excellence in teaching, learning and research with a focus on sustainable industrial practice and impact backed up by a rigorous understanding and knowledge of underlying scientific principles.

Our innovative research, prestigious degree programmes and strong relationship with the commerce sector make us one of the most successful chemical engineering departments in the UK.

Taught courses

- **MSc Sustainable Chemical Engineering**
  1 year full-time
- **MSc Environmental Engineering**
  1 year full-time

Entry requirements

Normally a first or strong second-class UK honours degree or internationally recognised equivalent in chemical, biochemical or environmental engineering. Applications from other relevant engineering and science disciplines (such as chemistry or natural sciences) will be considered on an individual basis.

Language requirements: IELTS 6.5 (at least 6.0 in each of the four components).

For more information visit www.bath.ac.uk/topics/taught-postgraduate-study/

Research degrees

Research opportunities within Bath's Chemical Engineering Department include:

- **MPhil and PhD in Chemical Engineering**
- **PhD in Centres for Doctoral Training in Sustainable Chemical Technologies, Catalysis and Water Informatics: Science and Engineering**

For more information visit: www.bath.ac.uk/departments/doctoral-college

Contact details

Website: www.bath.ac.uk/engineering/graduate-school

Email: fedgradschool@bath.ac.uk
pgtadmissions@bath.ac.uk (MSc)
doctoraladmissions@bath.ac.uk (MPhil & PhD)

Tel: +44 (0)1225 386464 (General enquiries - MSc)
+44 (0)1225 383868 (General enquiries – MPhil & PhD)
+44 (0)1225 385115 (Admissions - MSc)
+44 (0)1225 385949 (Admissions - MPhil & PhD)

University of Birmingham

Everyone wants to think their chosen career path will make a difference to the world in which we live. If you choose the College of Engineering and Physical Sciences for your postgraduate studies, you will make that difference.

With taught, research and combined postgraduate degree options on offer on a full-time or part-time basis, there is a programme right for you to take the next step on your career path.

Continue your studies with us and you will be at the cutting-edge of science and engineering – on your way to making the world a more advanced, resilient and sustainable place.

Taught courses

- **MSc Advanced Chemical Engineering**
  1 year full-time
  2 years part-time
- **MSc Biochemical Engineering**
  1 year full-time
  2 years part-time

Entry requirements

Advanced Chemical Engineering:
We prefer chemical engineers for this course but will accept chemists that are prepared the work on the maths.

Biochemical Engineering:
We accept candidates with a chemical engineering and biological science background. We also accept pharmaceutical science. Candidates with a physics, maths, material science or chemistry background are not suitable.

Research degrees

Research projects at Birmingham include:

- **PhD Chemical Engineering**
- **PhD Chemical Engineering (Bioprocessing specialism)**
- **PhD Chemical Engineering (Energy and Chemical Industries specialism)**
- **PhD Chemical Engineering (Food, Health and Nutrition specialism)**
- **PhD Chemical Engineering (Speciality Products specialism)**
- **PhD Chemical Engineering (with integrated study)**
- **PhD Hydrogen, Fuel Cells and their applications (with integrated study)**
- **EngD Formulation Engineering**

For more information about research opportunities please visit:
www.birmingham.ac.uk/postgraduate/courses/research/epslisting.aspx

Contact details

Website: www.birmingham.ac.uk/university/colleges/eps/study/postgraduate/index

Email: msc-admis-chem-eng@bham.ac.uk (taught courses)
pg-admis-chem-eng@bham.ac.uk (research)

Tel: +44 (0)121 414 5275 (taught)
+44 (0)121 414 3947 (research)

University of Bradford

Engineering at Bradford has entered a new, exciting phase of activity in which we emphasise the interdisciplinary nature of Engineering in all of its forms. Our courses in Chemical, Civil and Structural, Mechanical and Automotive and Medical Engineering are accredited by the relevant professional institutions.

Taught courses

- **MSc Applied Chemical and Petroleum Engineering**
  1 year full-time

Entry requirements

2.2 equivalent bachelor's degree in chemical engineering or petroleum engineering.

English language requirements: IELTS at 6.0 or the equivalent.

For more info visit: https://bradford.ac.uk/courses/pg/advanced-chemical-and-petroleum-engineering/

Research degrees

Opportunities exist in all research groups in the four engineering departments within the Faculty of Engineering and Informatics. The following research groups are available:

- **mechanical and process engineering**
- **automotive research centre**
- **advanced materials engineering**
- **centre for polymer micro and nano technology (Polymer MNT)**
- **centre for sustainable environments**
- **medical engineering**

For more information visit: www.bradford.ac.uk/ei/research/

Contact details

Website: www.bradford.ac.uk/ei/

Email: admissions-ei@bradford.ac.uk

Tel: +44 (0)1274 23 6088

Brunel University London

We strive to be a fast growing and internationally recognised multidisciplinary innovative hub for high-quality education and research in chemical engineering. Teaching is delivered by experienced staff with strong track records in education, research and industrial engagement. Our focus is to provide you with the specialised knowledge and professional skills to develop new technologies and generate process designs for the manufacture of novel products.

Taught courses

- **MSc Bioprocess Engineering**
  1 year full-time

Entry requirements

- 2:2 (or equivalent)
- IELTS: 6.0 (minimum of 5.5 in all areas)
- See www.brunel.ac.uk/msc-bpe for full details.

Research degrees

Research activities within the chemical engineering degree programmes at Brunel cover a wide range of multidisciplinary topics. Academic staff involved investigate diverse future-facing questions relevant to chemical process engineering, bioprocess engineering, materials manufacturing, energy technologies and low carbon economics.

We develop innovative processes and products focusing on clean growth, sustainable development, digitalisation and process safety. Besides advancing scientific knowledge, we also aim to work closely with various industries and communities to provide world-class solutions to current and future social challenges.

We conduct our research together with various university-level research centres and institutes. We have a world-leading collection of chemical and materials characterisation facilities at our disposal.

At the core of your research study will be the relationship with your supervisor, we encourage you to contact the academic with related interests using our supervisor search tool online to discuss your proposal before submitting your application.

Browse our key research areas and find your potential supervisor(s) by visiting our research group webpages:

- Bioprocess and Biopharmaceutical Engineering
- Digital Process Engineering
- Emerging Energy Technologies and advanced separation processes
- Materials for Sustainable Future

Browse PhD research opportunities at www.brunel.ac.uk/research-chem

Contact details

Website: www.brunel.ac.uk/chemical-engineering

Email: enquiries@brunel.ac.uk

University of Cambridge

Our aim is to produce the academic, industrial and entrepreneurial leaders of tomorrow, together with the industrial processes and bioscientific advances they will employ. Our strategy is to work at the interfaces between engineering, chemistry, biology and physics. We create a unique multidisciplinary research environment within the University of Cambridge, in which collaborations with academic and industrial organisations flourish.

Our research programmes encompass sustainable reaction engineering, chemical product and process design, healthcare, measurement, and materials science. The fusion of leading biotechnology research with chemical engineering skills, within an ethos of commercial awareness, supports our continuing development and discovery at the science-engineering interface.

Taught courses

- **MPhil Advanced Chemical Engineering (ACE)**
  1 year full-time
- **MPhil Bioscience Enterprise (MBE)**
  9 months full-time
- **MPhil Biotechnology**
  11 months full-time

Entry requirements

All admissions to graduate programmes at the University of Cambridge are handled by Graduate Admissions. Visit their website for more information: www.graduate.study.cam.ac.uk

Research degrees

- **PhD Chemical Engineering or Biotechnology**
  3 year research programme examined by thesis and oral examination
- **PhD Sensor Technologies and Applications**
  Centre for Doctoral Training in Sensor Technologies and Applications (Sensor CDT), a 1 year MRes plus 3 year PhD research programme, underpinned by a consortium of Sensor CDT industrial partners, examined by thesis and oral examination
- **MPhil Chemical Engineering and Biotechnology**
  1 year research programme examined by thesis and oral examination that is usually taken as a precursor to PhD studies

Contact details

Website: www.ceb.cam.ac.uk

Email: graduateadmissions@ceb.cam.ac.uk

Tel: +44 (0)1223 334777

University of Chester

Research in Chemical Engineering impacts an enormous range of industries, from foodstuffs to plastics and from water treatment to energy production. Chemical engineers improve or create new processes that allow these products to be manufactured in more efficient and cleaner, more sustainable, ways. Research in our department includes both experimental and modelling work to address these challenges.

The Chemical Engineering department at the University of Chester is an exciting centre of state-of-the-art research cutting across traditional subject boundaries. We have a track record of high-quality research cited by other researchers around the world. Our laboratories host a number of industrial research projects and we have close links with additional companies on-site and nearby. Close academic collaborations with researchers at universities around the country and abroad further enhance a stimulating and supportive research environment.

Our research is grouped into a range of broad themes that allow us to help to address some of the challenges facing society and industry in the 21st century.

Research degrees

- **Sustainable Energy from Biomass and Wastes**
- **Systems Biology of Ageing and Health**
- **Computational Fluid Dynamics**
- **Leadership and Pedagogy in Engineering**
- **Computational Condensed Matter Physics**
- **Carbon Capture, Utilisation and Storage (CCUS)**
- **Inorganic Materials**

For further details visit www1.chester.ac.uk/departments/chemical-engineering or contact us at science-engineering@chester.ac.uk

Contact details

Website: www1.chester.ac.uk/departments/chemical-engineering

Email: science-engineering@chester.ac.uk

Tel: +44 (0)1244 511000

Cork Institute of Technology

Our graduates are employed in sectors that include pharmaceutical production, oil and gas exploration, environmental management, cement manufacture, food processing, business and finance and consulting, and the employment record from our courses is outstanding. Graduates secure well-paid, satisfying, jobs at home and abroad.

Our aim is to educate our graduates to be versatile, flexible, and well prepared for the different roles they will fulfil as they move along their chosen career path. We pride ourselves on our relevance and many staff member have industrial experience. Our Clean Technology Centre is internationally recognised and our Irish National Centre for Membrane Technology is investigating separations of industrial and community importance.

Taught courses

- **Certificate in Biopharmaceutical Processing**
  1 year full-time

Entry requirements

Candidates preferably will have a BSc or BEng or equivalent to complete the programme. Higher Certificates in Engineering or Science (Level 6) will be considered. are required to have a Higher Certificate in Engineering or Science. For more info visit: www.cit.ie/course/CREBIPR7

Research degrees

Research opportunities may be available within the Clean Technology Centre or Pharmaceutical Manufacturing Technology Centre. Visit www.cit.ie/chemeng/research for further information.

Contact details

Website: www.cit.ie/chemeng

Email: chemeng@cit.ie

Tel: +353 21 4335150

University College Cork

UCC was established in 1845 as one of three Queen's Colleges in Ireland - at Cork, Galway and Belfast. In 1908 the now University College Cork (UCC), became a founding member of the National University of Ireland (NUI). Since then the university has grown from 115 students to over 20,000 today, and offers a full range of programmes at both undergraduate and postgraduate levels to a mix of local and international students.

Taught courses

- **MEngSc Pharmaceutical and Biopharmaceutical Engineering**
  2-5 years part-time
- **Postgraduate Diploma in Pharmaceutical and Biopharmaceutical Engineering**
  2-5 years part-time

Entry requirements

MEngSc (CKR35):
Candidates must have achieved a bachelor's with honours degree (or equivalent engineering qualification) with a minimum grade 2H2, or a level 8 (Irish NQAI) BSc degree with a minimum grade 2H2 where the BSc graduate has a recognised qualification in process or chemical engineering. For example, the Diploma in Process & Chemical Engineering at UCC or its equivalent.

PG Diploma (CKP08):
Candidates must have achieved an NQAI level 8 degree in engineering, or an NQAI level 8 BSc degree or their equivalent, ideally with some relevant industrial experience. PG Diploma candidates may transfer to the MEngSc.

Where the number of applicants exceeds the number of places available, applicants are selected using the following criteria (in order of importance): qualifications of applicants and their relevance, experience of applicants and its relevance and 'reasons for entering programme' as indicated by applicants on course application form.

In all cases, the course of study for each candidate must be approved by the Programme Director.

Research degrees

Research PhD opportunities in process & chemical engineering are available at UCC in areas such as:

- **bioprocess engineering**
- **packaging and shelf life**
- **particulate systems engineering**
- **process simulation, assessment and optimisation**
- **product design engineering and quality by design**
- **sustainability and energy**
- **teaching and learning methods and practices in chemical engineering**
- **engineering education for sustainable development**

For more details about research opportunities at UCC please visit: www.ucc.ie/processeng/research

Contact details

Website: www.ucc.ie/processeng/postgrads
www.ucc.ie/processeng/research

Tel: +353 21 490 2389

Email contacts:
marguerite.reardon@ucc.ie (taught programmes),
m.desousagallagher@ucc.ie (MEngSc/PGDip)
processeng@ucc.ie (general/research)

University College Dublin

UCD School of Chemical and Bioprocess Engineering is the oldest and largest degree granting School of its type in Ireland, offering professional degrees at BE and ME level and, in its research-intensive programmes and advanced courses, up to the level of PhD. In its 63 years of growth, the graduates of the School have played vital roles in the development of the strong and prosperous chemical and pharmaceutical industry in Ireland and, more recently, in the emerging biopharmaceutical industry.

Taught courses

- **MEngSc Biopharmaceutical Engineering**
  1 year full-time
  2 years part-time
- **MEngSc Chemical Engineering**
  1 year full-time

Entry requirements

MEngSc Biopharmaceutical Engineering:
An honours undergraduate degree (NFQ level 8) with a minimum upper second-class honours or international equivalence in a relevant Engineering, Science or Technology programme. However, all applicants will be assessed on a case-by-case basis and relevant or extensive work experience will be taken into account.

MEngSc Chemical Engineering:
An honours undergraduate degree (NFQ level 8) with a minimum upper second-class honours or international equivalence in a relevant chemical engineering programme. However, all applicants will be assessed on a case-by-case basis and relevant or extensive work experience will be taken into account.

For all courses, applicants whose first language is not English must also demonstrate English language proficiency of IELTS 6.5 (no band less than 6.0 in each element), or equivalent.

Research degrees

Basic and applied research are important activities in the School of Chemical Engineering and Bioprocess Engineering. The major areas of interest include the following general chemical and bioprocess engineering themes:

- **biopharmaceutical engineering**
- **energy conversion and storage technologies**
- **materials design and interfaces**
- **process engineering**

Contact details

Website: www.ucd.ie/chembioeng

Email: chemical.eng@ucd.ie

Tel: +353 1 716 1825

University of Edinburgh

The School of Engineering has a large and diverse community, spanning a wide spectrum of modern engineering. We offer a comprehensive range of postgraduate training with access to world class research laboratory facilities. Our postgraduate taught master's courses are curriculum-driven experiences, culminating in a period of independent work submitted as a dissertation.

Our powerful, distinctive research specialisms provide doctoral students with the knowledge, expertise and skills necessary to develop their academic or industry career. We have a long tradition of excellence in the field and have developed a wealth of knowledge across some of the most important research areas in engineering today. With our emphasis on research, there can be no doubting the importance the School places on our vibrant and growing postgraduate research programme. We have around 300 doctoral researchers from a wide range of countries studying on our postgraduate research degrees.

Taught courses

- **MSc in Advanced Chemical Engineering**
  1 year full-time
- **MSc in Advanced Power Engineering**
  2 years full-time
- **MSc in Electrical Power Engineering**
  1 year full-time
- **MSc in Electronics**
  1 year full-time
- **Intl Master of Science in Fire Safety Engineering** 2 years full-time
- **MSc in Sensor and Imaging Systems**
  1 year full-time
- **MSc in Signal Processing and Communications**
  1 year full-time
- **MSc in Structural and Fire Safety Engineering**
  1 year full-time
- **MSc in Sustainable Energy Systems**
  1 year full-time

Entry requirements

To study at postgraduate level you need to hold a degree in an appropriate subject, or have a qualification or experience accepted as equivalent.

The academic qualification required for admission to postgraduate programmes at the School of Engineering is a degree with an excellent or very good classification; this is the equivalent to first or upper second class honours in the UK. Please visit the 'Entry Requirements by Country' page on the website to find country-specific advice and information on how international degrees equate: www.ed.ac.uk/studying/international/postgraduate-entry

Research degrees

PhD research project opportunities at the School of Engineering sit within the following Research Institutes:

- **bioengineering**
- **digital communications**
- **energy systems**
- **multiscale thermofluids**
- **infrastructure and environment**
- **Integrated micro and nano systems**
- **materials and processes**

For more information about research programmes in the School of Engineering, including available research projects visit www.eng.ed.ac.uk/studying/postgraduate/research.

Contact details

Website: www.eng.ed.ac.uk/postgraduate
Email: enggradoffice@ed.ac.uk (research)
pgtenquiries@eng.ed.ac.uk (taught)

+44 (0)131 651 7213 / (0)131 651 9023 (research)
+44 (0)131 651 3565 (taught)

Heriot-Watt University

Heriot-Watt University offers a superb environment for postgraduate study and research. We have excellent facilities, highly-rated teaching and world-leading research activity; and are ranked in the top 4% of universities worldwide.

Studying with us will bring you into contact with leading researchers who are working on some of the most important areas for twenty-first century society. As part of our community you will benefit from an environment focused on making a real and lasting contribution to the issues that matter.

All our degrees are highly regarded for their business and industry relevance and we have an excellent record of preparing students for successful careers.

Taught courses

- **MSc Oil and Gas Technology***
  1 year full-time
  2 years part-time
- **Sustainability Engineering***
  MSc: 1 year full-time
  Diploma: 9 months full-time
  Certificate: 6 months full-time

*Recruitment for these courses has been temporarily suspended for 2019/2020 entry. Contact the university with any queries.

Entry requirements

Oil & Gas Technology:
The entry requirements are a good honours degree (2.1) in Chemical Engineering, Mechanical Engineering or Physics, or a closely related subject. Equivalent overseas qualifications will be considered.

Sustainability Engineering:
A first or second class honours degree in a suitable subject with a numerate background. Equivalent overseas qualifications will also be considered.

Alternative backgrounds, such as vocational training complemented with sufficient relevant industrial experience and continued professional development will be assessed on a case-by-case basis.

Research degrees

Research projects at Heriot-Watt include:

- **carbon capture, utilisation and storage**
- **low-carbon processes**
- **modelling of multi-phase (gas/liquid/particles) and multiscale (micro to macro) flows**
- **bioprocessing**
- **catalysis and reaction engineering**

For more information about research opportunities please contact us at pgr@eps.hw.ac.uk

Contact details

Website: www.postgraduate.hw.ac.uk/eps
Email: pgt.eps@hw.ac.uk (taught courses)
pgr@eps.hw.ac.uk (research)
Tel: +44 (0)131 449 5111

University of Huddersfield

Here at Huddersfield we have a long tradition of teaching and research in the chemical sciences and chemical engineering, dating back as far as the 1840s when the School was a centre for colour chemistry, supporting the textile and dyeing industries in the area. The modern Chemical Sciences department has a vibrant teaching and research environment in the areas of chemical engineering, chemistry, biotechnology and pharmaceuticals.

Taught courses

- **MSc Oil and Gas Engineering with Management**
  1 year full-time
  2 years part-time

Entry requirements

A good honours degree (2:1 or first class) from a reputable educational establishment, or a professional qualification recognised as being equivalent to an honours degree in the following subjects or a closely-related appropriate science subject area:

- **mechanical engineering**
- **manufacturing engineering**
- **engineering systems**
- **electrical engineering**
- **chemical engineering**
- **petroleum engineering**

Other qualifications or experience which demonstrates that a candidate possesses the knowledge and skills at honours degree standard may be acceptable and will be considered on an individual basis. Final decisions regarding admission to the course rests with the University.

Research degrees

- **MSc by Research in Chemical Engineering**
  1 year full-time, or part-time options available

Visit: www.hud.ac.uk/researchdegrees for more information on research studentships and how to apply.

Contact details

Website: www.hud.ac.uk/postgraduate

Email: chemicalengineering@hud.ac.uk

Tel: +44 (0)1484 473116

University of Hull

The School of Engineering is home to a community of postgraduate research students. We are particularly proud of our vibrant international and interdisciplinary research culture. We have a long history of excellence in research and in the application of research to address real world problems. One of the University's distinctive features is its strong research collaboration culture. We work with (among others) chemists, biologists and clinicians, on a variety of projects and initiatives.

The Humber is the largest trading estuary in the UK (worth c£6bn pa) and one of the fastest-growing chemical bases. The University has direct links with industry giants including Phillips66, Total, Novartis, BP Chemicals, Croda, Cristal, Smith & Nephew and RB (Reckitt Benckiser) making Hull the ideal location to study chemical and process engineering.

Our programmes place emphasis on the practical application of knowledge by providing opportunities to work on real-world engineering projects.

Taught courses

- **MSc Energy Engineering**
  1 year full-time
- **MSc Engineering Management**
  1 year full-time
  2 years part-time
  2 years part time online

Entry requirements

Generally, we require applicants to hold a bachelor honours degree at 2.2 or above (or international equivalent) in an engineering or related discipline. Applicants with atypical qualifications but with relevant industrial experience will also be considered.

Research degrees

For details of PhD opportunities at the University of Hull please visit www.hull.ac.uk/study/pgr/chemistry-research.aspx

Contact details

Website: www.hull.ac.uk/faculties/subjects/chemical-engineering

Email: pgadmissions@hull.ac.uk

Tel: +44 (0)1482 466 850

Imperial College London

Imperial College London is the only UK university to focus entirely on science, engineering, medicine and business. Our international reputation for excellence in teaching and research sees us consistently rated in the top 10 universities worldwide.

Taught courses

- **MSc Advanced Chemical Engineering**
  1 year full-time
- **MSc Advanced Chemical Engineering with Biotechnology**
  1 year full-time
- **MSc Advanced Chemical Engineering with Structured Product Engineering**
  1 year full-time
- **MSc Advanced Chemical Engineering with Process Systems Engineering**
  1 year full-time

Entry requirements

Our minimum entry requirement is normally a UK first or high upper second-class honours degree from a mainstream university or overseas equivalent. If your first degree is from a country other than the UK, you may find the guidelines on College entry requirements (www.imperial.ac.uk/study/pg/apply/requirements) useful. Please note that these guidelines indicate the College minimum. Our requirement is usually higher.

Research degrees

Imperial College's Department of Chemical Engineering is one of the world's leading research schools in the field. Research carried out within the Department covers a very broad spectrum, ranging from technological studies of the behaviour of processes and equipment to techniques for process planning, design and control. This is supported by a wide range of specialist research facilities, including a carbon capture pilot plant –the most sophisticated facility of its kind in the world. The Department has strong links with industrial and commercial organisations, including BP, Shell, ICI, P&G, GlaxoSmithKline and Unilever, which provide both financial support for bursaries and real world research projects.

Normally PhD applicants need to hold or be studying for a master's degree and would typically have achieved a minimum 2:1 in a bachelor's degree in an appropriate subject. Outstanding applicants will be considered for the Chemical Engineering PhD Scholarships scheme. PhD information is available here: www.imperial.ac.uk/chemical-engineering/courses/postgraduate/phd/

Contact details

Email:	c.addie@imperial.ac.uk (for MSc Advanced Chemical Engineering) s.underwood@imperial.ac.uk (for PhD)
Tel:	+44 (0)207 594 2978 (MSc Advanced Chemical Engineering) +44 (0)207 594 5560 (for PhD)

Lancaster University

We offer a range of taught masters' courses in engineering subjects, beginning in October each year. Most are available as either a 12-month full-time or 24-month part-time course. They are equally suitable for early career students who wish to further their engineering education following a first degree and more experienced students holding responsible positions in industry who wish to advance their careers.

The Engineering Department is based in a purpose-built building that opened in 2015. Both taught and research degrees benefit from the modern facilities this provides; combine with teaching and supervision from experts, as well as close links with industry, and the result is the 7th best engineering department in the country.

Taught courses

- **MSc Electronic Engineering**
  - 1 year full-time
  - 2 years part-time
- **MSc Engineering Project Management**
  - 1 year full-time
  - 2 years part-time
- **MSc Mechanical Engineering with Project Management**
  - 1 year full-time
  - 2 years part-time
- **MSc Mechanical Engineering**
  - 1 year full-time
  - 2 years part-time

Entry requirements

MSc Electronic Engineering:
An upper second-class honours degree in a related engineering discipline which may include communications, electrical engineering, computer systems and physics. A HND together with appropriate practical experience may also be acceptable

MSc Engineering Project Management:
An upper second-class honours degree or equivalent in an engineering or technical subject for entry direct from study; more experienced applicants with substantial further learning will also be considered.

MSc Mechanical Engineering / MSc Mechanical Engineering with Project Management:
An upper second-class honours degree in Mechanical Engineering or related disciplines (or in Physics for MSc Mechanical Engineering). A HND or equivalent together with substantial appropriate industrial experience may be considered.

Research degrees

The Engineering Department at Lancaster University welcomes applications from outstanding graduates to undertake engineering research projects in the fields of:

- **nuclear engineering**
- **control and instrumentation**
- **mobile robots**
- **advanced structures**
- **micro and nano technology**
- **energy**
- **high power microwave engineering**
- **structures, materials and manufacture**

Applicants for postgraduate research courses in engineering must have a first class or upper second-class honours degree in a relevant engineering or science discipline. International students must meet the relevant academic standards plus one of the following English language qualifications: IELTS 6.5 or TOEFL 93.

Contact details

Website: www.lancaster.ac.uk/engineering/study/masters/
Email: pgadmissions@lancaster.ac.uk
Tel: +44 (0)1524 592032

University of Leeds

We offer a broad range of master's courses and research degrees across the range of chemical, process, environmental and materials engineering disciplines. Here are just a few of the benefits of studying for a postgraduate qualification in the School of Chemical and Process Engineering:

1. our research feeds directly into our teaching, which means you will be supervised and taught by world class academics on courses that are at the leading edge of thinking in the field
2. our dedicated Employability team offer one to one support and access to engineering and computing careers resources and industry guides.
3. access to excellent facilities including laboratories equipped with the latest technology for environmental monitoring, pollution control and advanced energy systems such as fuel cells. Specialist facilities include X-ray diffractometers, scanning electron microscopes, a pilot-scale chemical process and combustion plant, petroleum reservoir and rock deformation lab, offering a creative and stimulating learning environment.

Taught courses

- **MSc Advanced Chemical Engineering**
  1 year full-time
- **MSc Chemical Process Engineering**
  1 year full-time
- **MSc Energy and Environment**
  1 year full-time
- **MSc Materials Science and Engineering**
  1 year full-time
- **MSc Petroleum Production Engineering**
  1 year full-time

Entry requirements

MSc Advanced Chemical Engineering: a bachelor's degree with a 2:1 (hons) or equivalent in chemical engineering.
MSc Chemical Process Engineering: a bachelor's degree with a 2:1 (hons) or equivalent in a related engineering or science discipline.
MSc Energy and Environment: a bachelor's degree with a 2:2 (hons) in a related subject.
MSc Materials Science and Engineering: a bachelor's degree with a 2:2 (hons) in an appropriate discipline or equivalent experience.
MSc Petroleum Production Engineering: a bachelor's degree with a 2:2 (hons) in chemical engineering or a related engineering or science discipline.

English Language Requirements: IELTS 6.5 overall, with no less than 6.0 in any component. See https://engineering.leeds.ac.uk/info/201352/masters for more info.

Research degrees

The School of Chemical and Process Engineering is a multidisciplinary school, addressing a range of global and societal challenges across the areas of Chemical Engineering, Energy and Materials Science. Our research activity focuses on three main areas:

- Energy Research - energy science and engineering for the sustainable supply and use of energy.
- Materials Research - structure, properties, processing and applications of advanced materials.
- Particle Science and Engineering - design, measurement, modelling and manufacture of particulate materials.

For more information visit: www.engineering.leeds.ac.uk/chemical/research

Contact details

Website: www.engineering.leeds.ac.uk
Email: pgchemical@leeds.ac.uk (MSc)
phd@engineering.leeds.ac.uk
Tel: +44 (0)113 343 2343 (master's)
+44 (0)113 343 8000 (research)

University of Limerick

The University of Limerick (UL) with over 15,000 students and 1,400 staff is an energetic and enterprising institution with a proud record of innovation and excellence in education, research and scholarship. The dynamic, entrepreneurial and pioneering values which drive UL's mission and strategy ensures that we capitalise on local, national and international engagement and connectivity. We are renowned for providing an outstanding student experience and conducting leading-edge research. Our commitment is to make a difference by shaping the future through educating and empowering our students. UL is situated on a superb riverside campus of over 130 hectares with the River Shannon as a unifying focal point. Outstanding recreational, cultural and sporting facilities further enhance this exceptional learning and research environment.

Taught courses

- **Graduate Diploma in Chemical Engineering**
  1 year full-time

This is a specially designed conversion course for those with a first degree in a science or engineering discipline (other than chemical engineering) and wish to develop a career as a chemical engineer in the process and pharmaceutical industries.

Details on the programme content can be found at www.ul.ie/graduateschool/course/chemical-engineering-grad-dip

Entry requirements

Due to increased demand available places on this course are limited.

Applicants should normally have a primary degree (level 8 equivalent) at second-class honour level or above in a relevant branch of science or engineering (eg Chemistry, Physics, Biochemistry, Biotechnology, Environmental or Material Science, Mechanical, Environmental or Food Engineering).

You must also show evidence of adequate knowledge in science/engineering mathematics, various Chemistry and related subjects, Thermodynamics/Physical chemistry/Reaction kinetics, and experimental skills working in a science and engineering lab. Graduates with work experience are especially welcome.

Research degrees

University of Limerick has a range of research opportunities for engineering/science graduates leading to either an MSc/MEng or PhD qualification.

Please visit: www.ul.ie/graduateschool for information on funded postgraduate research fields and possibilities.

Contact details

Website: www.ul.ie/graduateschool/course/chemical-engineering-grad-dip

Email: postgradadmissions@ul.ie or international@ul.ie

Tel: +353 61 234377

University College London (UCL)
Biochemical engineering

"London's Global University" UCL was founded in 1826 to open up university education in England to those who had been excluded from it. In 1878, it became the first university in England to admit women students on equal terms with men. Academic excellence and conducting research that addresses real-world problems informs our ethos to this day and our plans for the future.

Taught courses

- **MSc Biochemical Engineering**
  1 year full-time
- **MSc Manufacture and Commercialisation of Stem Cell and Gene Therapies**
  1 year full-time

Entry requirements

Biochemical engineering: Entry into our programme is competitive with most successful applicants achieving an equivalent to a UK upper second-class bachelor's degree or higher. Candidates offering recent industrial experience are also encouraged to apply. As with any engineering discipline numeracy skills are important for the quantitative description of biological and physical phenomena evidence of numerical ability is therefore required.

Manufacture and Commercialisation of Stem Cell and Gene Therapies: Entry into our programme is competitive and requirements include a minimum of an equivalent to a UK upper second-class bachelor's degree in a relevant subject (eg Life Sciences, Biotechnology, Environmental Science, Engineering, Chemistry or Business with a Biotechnology component). Candidates offering recent industrial experience are also encouraged to apply.

Research degrees

MRes in Synthetic Biology:
This one-year MRes programme provides training in the fast-growing area of synthetic biology, a discipline which takes the knowledge and understanding we now have of the individual parts of biological systems and uses them in a defined way to design and build novel artificial biological systems.

MPhil/PhD/EngD in Biochemical Engineering:
The department offers a range of research degree opportunities; many supported by the "EPSRC CDT in Bioprocess Engineering Leadership: Complex Biological Products Manufacture", and its industrial sponsors. EPSRC studentships (covering fees and a stipend) can be offered to UK or EU students resident in the UK for the 3 years prior to starting the programme. Projects draw upon the expertise within the department and the multidisciplinary research linkages of the Advanced Centre for Biochemical Engineering, many are collaborative with leading bioindustry companies. These external links, and close involvement with the Centre's research team, provide the foundation for producing much sought after doctoral graduates.

Research degree entry requirements: We accept all relevant sciences or engineering degrees equivalent to a UK BSc or MEng at a 2:1 or above, or to a UK MSc pass.

Contact details

Website: www.ucl.ac.uk/biochemical-engineering

Email: biochemeng@ucl.ac.uk

Tel: +44 (0)20 7679 9606

University College London (UCL)
Chemical engineering

We are one of the top research and teaching Chemical Engineering departments in the UK. Research is a major departmental activity, with 90% of our staff rated as world leading or of internationally excellent quality in the last Research Excellence Framework (REF2014). Our research covers a broad range of scales, from the molecular to the complex-systems level. We aim to create pioneering breakthroughs in science and technology and seek solutions to Grand Challenges, such as energy, health and environment, reduction of carbon dioxide emissions, sustainable manufacturing, and materials). The department hosts the Centre for Nature Inspired Engineering, which draws lessons from nature to engineer innovative solutions to our Grand Challenges, and the UCL Electrochemical Innovation Laboratory, which focuses on the commercialization of energy and CO_2 technology development. Some of our programmes are accredited by the Institution of Chemical Engineers (IChemE).

Taught courses

- **MSc Chemical Process Engineering**
  1 year full-time
- **MSc Global Management of Natural Resources**
  1 year full-time

Entry requirements

MSc Chemical Process Engineering:
Normally a minimum of an upper second-class bachelor's degree in a relevant discipline from a UK university or an overseas qualification of an equivalent standard.

MSc Global Management of Natural Resources:
Normally a minimum of a second-class bachelor's degree in a relevant discipline – preferably engineering, Earth sciences, chemistry or finance/business – from a UK university or an overseas qualification of an equivalent standard. Relevant work experience may be taken into account.

English language requirements: If your education has not been conducted in the English language, you will be expected to demonstrate evidence of an adequate level of English proficiency. The English language level for the MSc Chemical Process Engineering and the MSc Global Management of Natural Resources programmes is: Standard.

Research degrees

There are numerous postgraduate research degree opportunities at UCL (MPhil, PhD, Doctorate).

For details on courses or subject areas please visit www.ucl.ac.uk/prospective-students/graduate/research/degrees

Contact details

Website: www.ucl.ac.uk/chemeng/prospective-students

Email: pg-chemeng@ucl.ac.uk

Tel: +44 (0)20 7679 4328 (MSc Chemical Engineering)
+44 (0)20 7679 3826 (MSc Global Management in Natural Resources)

London South Bank University

With over 100 years' experience in educating professional engineering, you can be confident of the quality of our courses. Our 3D virtual engineering and flexible cyber security facilities support your learning and help to make industry-ready graduates. You will be able to take advantage of our professional links with industry, with opportunities to network with guest lecturers and alumni, go on field trips and secure placements.

- No.1 London modern university for research quality in Electrical and Electronic Engineering (Complete University Guide 2019)
- Top 10 in the UK for graduate prospects and research intensity in Engineering (Complete University Guide 2019)
- REF awarded 80% of our research into General Engineering the two highest quality ratings (4* or 3*) for 'impact' (research and significance).

Taught courses

- **MSc Chemical Engineering and Process Management**
  1 year full-time
- **MSc Petroleum Engineering**
  1 year full-time
- **MSc Data Science**
  1 year full-time
  2 years part-time
- **MRes General Engineering**
  1 year full-time
  2 years part-time
- **MSc Mechanical Engineering**
  1 year full-time
  2 years part-time
- **MSc Electrical and Electronic Engineering**
  1 year full-time
  2 years part-time

Entry requirements

General entry requirements: 2:2 UK honours degree in a relevant subject. Other qualifications and professional experience may be acceptable for some of the above. Applicants are also required to hold an IELTS score of 6.5.

Research degrees

PhD Chemical, Process and Energy Engineering is available in full or part-time study options. Visit www.lsbu.ac.uk/courses/course-finder/chemical-process-and-energy-engineering-phd for details.

Our PhD Electronic and Electrical Engineering (www.lsbu.ac.uk/study/course-finder/electronic-electrical-engineering-phd) and PhD Computer Science and Informatics (https://www.lsbu.ac.uk/study/course-finder/computing-science-informatics-phd) may also be of interest.

Contact details

Website: www.lsbu.ac.uk/course-finder

Email: course.enquiry@lsbu.ac.uk

Tel: +44 (0) 20 7815 6100 / +44 (0) 800 923 8888

Loughborough University

The Chemical Engineering Department at Loughborough University has a reputation within industry and academia for research excellence and producing highly trained, well-educated and professional chemical engineers. The Department has strong links with industry in the UK and overseas and industry experts contribute to our undergraduate and postgraduate courses, ensuring that our students are skilled and prepared for the latest issues within the Chemical Engineering field.

The state-of-the-art lab facilities offer students the opportunity to develop exceptional technical and research skills on current and future technologies and state-of-the-art processes, that will enable them to become valuable assets to their employers, and to contribute in future technology developments.

Graduates progress onto careers across a variety of industries, while a number go on to PhD study. Recent graduate destinations include: Exxon Mobil; BP; GSK; Tata Steel Europe; Brunei Shell Company; Petroplus.

Taught courses

- **MSc Advanced Chemical Engineering with IT and Management**
  1 year full-time

Entry requirements

A minimum of an upper second class (2:1) honours degree of similar standing to one from the UK in engineering or physical sciences is required. Other academic or professional qualifications or a lower second class (2:2) honour degree will be considered if supplemented by appropriate industrial experience relevant to the subject area of the MSc.

All applicants for admission to postgraduate taught programmes must have an acceptable qualification in English language (IELTS: standard) before they can be admitted to any taught postgraduate programme. Please refer to the International Office website for further information.

Research degrees

The Department of Chemical Engineering has a strong and growing research programme with world-class research activities and facilities and works closely with industry. Research is divided into two key research themes:

- **healthcare and pharmaceuticals**
- **process engineering**

For more information about research opportunities at Loughborough please visit www.lboro.ac.uk/departments/chemical/research

Contact details

Website: www.lboro.ac.uk/departments/chemical

Email: chemeng@lboro.ac.uk

Tel: +44 (0)1509 222 533

University of Manchester

At the University of Manchester we have a reputation as a world leader in industrially relevant teaching and research in chemical engineering. Our Chemical Engineering School is one of the top ranked in the UK and we have a strong history of educating chemical engineers at all levels. Visit our virtual open day to meet us and find out more.

Five reasons to choose chemical engineering at Manchester:

1. our unrivalled industrial relevance: study at the heart of the UK's North West manufacturing base and conduct industrial-scale experiments in our brand new £16M pilot plant
2. enjoy graduate employability and salaries higher than any other science or engineering discipline, apart from medicine/dentistry. Expect to earn £36,000 per year by your late twenties, rising to £62,500 in your late thirties
3. the chance to engage with the research conducted by academics working at the forefront of science
4. Manchester is a fantastic, vibrant place to live and study - renowned for its welcoming culture - and the University has a society to suit practically every interest
5. become a part of the distinguished history of chemical engineering at Manchester by studying at the birthplace of the subject as an academic discipline.

Taught courses

- **MSc Advanced Chemical Engineering**
  1 year full-time
- **MSc Advanced Process Integration and Design**
  1 year full-time

Entry requirements

To study on our taught masters' courses you will need a 2(i) (upper second-class honours) first degree in a relevant discipline, or equivalent qualifications/experience. Applicants with a high 2(ii) will be considered and are welcome to apply. Applicants whose first language is not English will need to demonstrate competency. We generally require applicants to hold IELTS 6.5 overall (no sub-score below 5.5) or a recognised equivalent English language qualification.

Research degrees

Our research is focussed around four key challenge areas; Energy, Food and Nutrition, Health and Wellbeing and Water. For more details about research opportunities at Manchester please visit: www.ceas.manchester.ac.uk/our-research/

Contact details

Website: www.ceas.manchester.ac.uk
Virtual open day: http://epsassets.manchester.ac.uk/live/chem_eng/vod/

Email: pg-ceas@manchester.ac.uk

Tel: +44 (0) 161 306 4837

Newcastle University

The School runs a number of popular taught postgraduate programmes that are designed to allow students to specialise in specific areas or to undertake conversion courses to broaden their employment prospects. All our MSc programmes tackle areas of practical current relevance and are industrial facing in terms of taught content and research project coverage. The majority of programmes are full-time study, although specific modules may be taken for the purposes of continuing professional development.

Taught courses

- **Renewable Energy, Enterprise and Management (REEM)**
  MSc: 1 yr full-time or up to 5 yrs part-time
  PgDip: 9-12 months full-time or up to 5 years part-time
  PgCert: up to 9 months full-time or up to 3 years part-time
  CPD: typical module duration 9 weeks
- **Renewable Energy Flexible Training Programme (REFLEX)**
  MSc: 1 year full-time or up to 5 years part-time
  PgDip: 9-12 months full-time or up to 5 years part-time
  PgCert: up to 9 months full-time or up to 3 years part-time
  CPD: typical module duration 9 weeks
- **Applied Process Control**
  MSc: 1 year full-time
  PgDip: 9-12 months full-time
- **Clean Technology**
  MSc: 1 year full-time or 2 years part-time
  PgDip: 7 months full-time
- **Materials, Design and Engineering**
  MSc: 1 year full-time or 2 years full-time for those needing additional language and study modules
- **Sustainable Chemical Engineering**
  MSc/PgDip: 1 year full-time

Entry requirements

Generally a 2:2 or equivalent, in a relevant engineering or applied science subject. We may also consider applicants on an individual basis with relevant industrial experience.

If your first language is not English you need IELTS 6.5, or equivalent. Detailed entry requirement information for each course can be found at: www.ncl.ac.uk/postgraduate/courses/#a-z

Research degrees

Students can choose from a range of research opportunities at Newcastle. Candidates pursuing MPhil and PhD degrees in our School have diverse disciplinary backgrounds and include statisticians, mathematicians, electrical engineers, chemists, physicists and of course, chemical and process engineers.

Contact details

Website: www.ncl.ac.uk/postgraduate/

Email: pgceam@ncl.ac.uk

Tel: +44 (0)191 208 7266

University of Nottingham

The Department of Chemical and Environmental Engineering is recognised as one of the best in Europe. Its purpose is to provide education and research in the sustainable production of materials, products and energy from natural and recycled materials.

The department maintains strong links with industry, so that students can get to work on interesting, real-life technological problems alongside their purely academic work. This kind of collaboration is central to the way the department operates. Working with colleagues from a wide range of universities, institutions and companies in the UK and abroad often takes us in new and unusual directions.

Taught courses

- **MSc Chemical Engineering**
  1 year full-time
- **MSc Environmental Engineering**
  1 year full-time
- **MSc Food Engineering**
  1 year full-time
- **MSc Efficient Fossil Energy Technologies**
  1 year full-time
  2 years part-time

Entry requirements

2.1 (upper 2nd class honours degree or international equivalent) in an engineering related subject. Applicants with a high 2.2 (lower second-class honours degree or international equivalent) with substantial work experience may be considered.

English language requirements: IELTS 6.0 (no less than 5.5 in any element).

Research degrees

To view a full list of research opportunities at the University of Nottingham please visit:
www.nottingham.ac.uk/pgstudy/courses/research-courses

Contact details

Website: www.nottingham.ac.uk/chemenv

Email: use form at www.nottingham.ac.uk/enquire (taught course enquiries)
engineeringpgr@nottingham.ac.uk (research enquiries)

Tel: +44 (0)115 951 3919

University of Oxford

The study of all branches of engineering in Oxford is encompassed in a single, unitary Department of Engineering Science. The opportunities in the Department for postgraduate study and research include the conventional disciplines of engineering such as chemical, civil, electrical, and mechanical, as well as information engineering, applications of engineering to medicine, low-temperature engineering, and experimental plasma physics.

Research degrees

- **MSc by Research in Engineering Science**
  2-3 years full-time
- **DPhil Engineering Science**
  3-4 years full-time
  6-8 years part-time
- **DPhil Autonomous Intelligent Machines and Systems (Centre for Doctoral Training)**
  4 years full-time
- **DPhil Future Propulsion and Power (Centre for Doctoral Training)**
  3-4 years full-time
- **DPhil Wind and Marine Energy Systems and Structures (Centre for Doctoral Training)**
  3-4 years full-time
- **MSc in Energy Systems**
  1 year full-time
  2-3 years part-time
- **MSc Nanotechnology for Medicine and Healthcare**
  2-4 years full-time

Entry requirements

For details on entry requirements for individual programmes please visit:
www.eng.ox.ac.uk/study/postgraduate/courses

Contact details

Website: www.eng.ox.ac.uk

Email: postgraduate.studies@eng.ox.ac.uk

Tel: +44 (0)1865 283249

Queen's University, Belfast

Queen's University Belfast School of Chemistry and Chemical Engineering is the only school of its kind in the UK and is regularly ranked in the UK Top 20 in both subject areas. Chemical Engineering at QUB is in the World Top 200*.

We have an academic staff of 47 plus 175 students undertaking PhD and master's programmes, 45 research fellows and nearly 600 undergraduates across our degree pathways. We have strong links with a wide range of industries in the form of collaborative projects and student placements and the curriculum is heavily informed by industry representatives who sit on an advisory board within the School.

Our graduates are in high demand by chemical and manufacturing companies, financial services and oil/gas industries with an average employment success rate of over 80% after six months. This level of success is not bettered by many other institutions.

*QS World University Rankings 2019

Taught courses

- **MSc Pharmaceutical Analysis**
  1 year full-time
  2 years part-time

Entry requirements

Applicants will normally be required to possess at least a second-class honours degree or equivalent in chemistry, pharmacy or a closely allied subject. The School encourages applications from potential UK based and international students, and adheres to University and UK Border Agency regulations on language requirements for applicants whose first language is not English.

Research degrees

Current PhD studentship opportunities can be found at
https://www.qub.ac.uk/schools/SchoolofChemistryandChemicalEngineering/Research/PhDVacancies/

Contact details

Website: www.qub.ac.uk/schools/SchoolofChemistryandChemicalEngineering/

Email: candce@qub.ac.uk

Tel: +44 (0) 28 9097 5418

University of Sheffield

Our MSc courses tackle the needs of 21st century society, addressing grand challenges including climate change, resource scarcity and population growth through, for example, designing new methods of generating energy and disposing of waste or developing novel routes to medicines via next generation bio-manufacturing technologies. Our Process Safety and Loss Prevention MSc is a unique course delivered by leading experts in oil and gas, chemical, nuclear and pharmaceutical sectors demonstrating the importance of this topic in these key employment sectors. All of our MSc courses provide excellent preparation for a career in industry or further research at PhD level. Our PhD research students tackle major issues in the fields of energy, environment, food, water and health. We are looking for outstanding people to join us and there are plentiful funding opportunities for UK, EU and overseas graduate students.

Taught courses

- **MSc (Eng) Biological and Bioprocess Engineering**
  1 year full-time
- **MSc (Eng) Biochemical Engineering with Industrial Management**
  1 year full-time
- **MSc (Eng) Process Safety and Loss Prevention**
  1 year full-time
- **MSc (Eng) Environmental and Energy Engineering**
  1 year full-time
- **MSc (Eng) Environmental and Energy Engineering with Industrial Management**
  1 year full-time

Entry requirements

MSc (Eng) Biological and Bioprocess Engineering
MSc (Eng) Biochemical Engineering with Industrial Management
An upper second-class honours degree (2:1) in a relevant discipline*, or equivalent qualifications and experience. Applicants with a 2:2 are welcome to apply and will be considered on merit.

*Relevant disciplines for your first degree include: chemical engineering, chemistry, biochemistry, biotechnology, biological engineering, biomaterials, biomedical engineering, materials and process engineering.

MSc (Eng) Process Safety and Loss Prevention
A good degree (at least a 2.2) in a relevant engineering or science discipline** or deemed qualified as a result of a lower qualification accompanied by relevant/wide work experience.

**Entrants without a first degree at classification 2.2 or above, initial entrance must be to the Diploma course, with the opportunity to transfer to the MSc on satisfactory completion of half of the taught course material.

MSc (Eng) Environmental and Energy Engineering
MSc (Eng) Environmental and Energy Engineering with Industrial Management
A lower second-class honours degree (2:2) or equivalent, attained good Honours degree in engineering, technological or science subject.

International students must have International English Language Testing Service (IELTS) with an average of 6.5 or above with at least 5.5 in each component or equivalent.

Research degrees

For a full list of PhD studentships within Chemical and Biological Engineering visit www.sheffield.ac.uk/cbe/phd

Contact details

Taught courses: www.sheffield.ac.uk/cbe/pg
cbe-msc@sheffield.ac.uk
+44 (0) 114 222 7500

Research: www.sheffield.ac.uk/cbe/phd
cbe-phd@sheffield.ac.uk
+44 (0) 114 222 8250

University of Strathclyde

We offer innovative courses delivered by highly-qualified staff with a dynamic approach and many years of practical experience in areas including advanced chemical processes, process design, safety and environmental protection. Our research laboratories are equipped with state-of-the-art instruments for characterisation of a wide range of porous and nanomaterials and we're constantly developing experimental techniques that allow the investigation of crystallisation, flow reactions and combustion processes. We have strong links with major chemical engineering employers across the world, particularly those involved in our unique Chemical Engineering by Distance Learning programmes.

Taught courses

- **Advanced Chemical & Process Engineering**
  MSc: 1 year full-time
  PGDip: 9 months full-time
  PGCert: 6 months full-time
- **Process Technology and Management (distance learning)**
  MSc: 3 years part-time
  PGDip: 2 years part-time
  PGCert: 1 year part-time
- **Energy Systems Innovation**
  MSc: 1 year full-time
  PGDip: 9 months full-time
  PGCert: 6 months full-time
- **Sustainable Engineering: Chemical Processing**
  MSc: 1 year full-time/2 years part-time
  PGDip: 9 months full-time/21 months part-time

Entry requirements

Advanced Chemical & Process Engineering / Energy Systems Innovation
An honours degree, or equivalent, in a relevant engineering, technology or science discipline. Entry may be possible with other qualifications provided there is evidence of relevant experience and ability to study at an advanced level.

Process Technology and Management (distance learning):
Normally at least a second-class honours degree or higher, or overseas equivalent, in chemical engineering or a relevant engineering, technology or science discipline. Other qualifications will be considered if they meet the same standard.

Sustainable Engineering: Chemical Processing
Honours degree, or equivalent, in a relevant chemical engineering, technology or science discipline. Entry may be possible with other qualifications provided there is evidence of relevant experience.

International students must have International English Language Testing Service (IELTS) with an overall score of 6.5 (no individual test score below 5.5). The University offers Pre-sessional English language programmes for students who do not meet the criteria.

Research degrees

PhD and MRes research opportunities are available in chemical and process engineering. Visit: www.strath.ac.uk/courses/research/chemicalprocessengineering for full details.

Contact details

Website: www.strath.ac.uk/engineering/chemicalprocessengineering
Email: contact-chemeng@strath.ac.uk
Tel: +44 (0)141 574 5306

University of Surrey

We offer undergraduate, postgraduate master's and postgraduate research programmes in a range of engineering and environmental-related disciplines. Our postgraduate taught courses offer a wide choice of programmes focusing on several specialist areas such as: Process and Information Systems Engineering and Petroleum and Renewable Energy Systems Engineering. All of our MSc courses can start in February or October.

Surrey is referred to as 'the University for Jobs' by the Sunday Times and is highly rated in national league tables and by our own standards in the National Student Survey. The areas of study in our department offer outstanding opportunities on graduation.

Taught courses

- **MSc Information and Process Systems Engineering**
  1 year full-time
  2 years part-time
- **MSc Petroleum Refining Systems Engineering**
  1 year full-time
  2 years part-time
- **MSc Batteries, Fuel Cells and Energy Storage Systems**
  1 year full-time
  2 years part-time
- **MSc Process Systems Engineering**
  1 year full-time
  2 years part-time
- **MSc Renewable Energy Systems Engineering**
  1 year full-time
  2 years part-time

Entry requirements

MSc Information Process Systems Engineering / MSc Process and Environmental Systems Engineering / MSc Process Systems Engineering:
Candidates should be graduates with a minimum 2.2 honours degree (or equivalent) in an engineering, science or related subject. Practitioners with suitable qualifications and relevant experience in engineering, science or technology are also welcome to apply.

MSc Petroleum Refining Systems Engineering / MSc Renewable Energy Systems Engineering / MSc Batteries, Fuel Cells and Energy Storage Systems:
As above, but with a minimum of 2.1 honours degree.

IELTS 6.5 overall with a minimum of 6.0 in writing and 5.5 in each other category.

Research degrees

- **PhD Chemical and Process Engineering**
  30-48 months full-time
  60-96 months part-time

Applicants are expected to hold a first or upper-second class degree in a relevant discipline (or equivalent qualification), or a lower second plus a good master's degree (distinction normally required).

For more information visit www.surrey.ac.uk/postgraduate/chemical-and-process-engineering-phd

Contact details

Website: www.surrey.ac.uk/cpe
Email: admissions@surrey.ac.uk
Tel: +44 (0)1483 682 222

Swansea University

We're proud of the success of our academic staff and graduates in helping to engineer our future. With our world-class research, links with industry and outstanding facilities, we provide a great start to the future career of our staff and students. We are involved in beating the world land-speed record, solving the world's water shortages and collaborating with globally recognised companies.

Chemical Engineering at Swansea University was recently ranked 7th in the UK by The Times and Sunday Times Good University Guide 2020. We were also ranked 4th for our Graduate Prospects and 7th for our Research Quality, proving that Swansea is an amazing place to study this subject.

Taught courses

- **MSc Chemical Engineering**
  1 year full-time

Entry requirements

A first or second-class honours degree in chemical or biochemical engineering, or a related discipline such as chemistry, biochemistry, physics, or other engineering discipline.

If English is not your first language you will need an acceptable pass in an approved English language qualification. We consider a wide range of qualifications including the Swansea University English Test, the British Council IELTS test (with a score of at least 6.5 and 5.5 in each component). For more info visit: www.swansea.ac.uk/international/students/requirements/english-requirements

Research degrees

- **MSc by Research in Bio-process Engineering**
  1 year full-time
  2 years part-time
- **MSc by Research in Desalination and Water Re-use**
  1 year full-time
  2 years part-time
- **MSc by Research in Fuel Technology**
  1 year full-time
  2 years part-time
- **MSc by Research in Membrane Technology**
  1 year full-time
  2 years part-time
- **MSc by Research in Energy Innovation**
  1 year full-time
  2 years part-time
- **PhD in Energy Innovation**
  3 years full-time
  6 years part-time
- **PhD/MPhil Chemical Engineering**
  PhD 3 years full-time
  PhD 6 years part-time
  MSc by Research 1 year full-time
  MPhil 2 years full-time
  MPhil 4 years part-time
- **Engineering Doctorate**
  4 years full-time

Entry requirements for the above include a first or upper second-class honours degree in chemical or biochemical engineering, or a related discipline such as chemistry, biochemistry, physics or other engineering discipline.

The EngD programme is suitable for graduates with an engineering or relevant physical sciences degree with a minimum level of 2:1, or with a relevant master's level qualification.

Contact details

Website: www.swansea.ac.uk/engineering/chemical

Email: engineering@swansea.ac.uk

Tel: +44 (0)1792 295514

Teesside University

Teesside is a major international centre for the chemical and process industries and home to some of the most advanced pharmaceutical and biotechnological companies in the world. The region also hosts major international engineering design and construction industries. We enjoy close links with engineering industries on Teesside - many are involved in designing and delivering our programmes. This ensures that your chosen programme will provide you with the knowledge and skills sought by employers.

Taught courses

- **PgDip/MSc Oil and Gas Management**
  1 year full-time
  2 years part-time
- **PgDip/MSc Petroleum Engineering**
  1 year full-time
  2 years part-time
- **PgDip/MSc Project Management**
  1 year full-time
  2 years part-time
- **PgDip/MSc Electrical Power and Energy Systems**
  1 year full-time
  2 years part-time
- **PgDip/MSc Food Processing Engineering**
  1 year full-time
  2 years part-time
- **PgDip/MSc Instrumentation and Control Engineering**
  1 year full-time
  2 years part-time
- **PgDip/MSc Chemical Engineering**
  1 year full-time
  2 years part-time

These courses are also available as 2 years full time MSc (with Advanced Practice) which gives you the option to enhance your qualification by completing an internship, research or study abroad experience.

Entry requirements

Applicants are normally expected to have at least a lower second class (2.2) UK honours degree, or equivalent qualification, in a relevant subject.

Non-UK students must also meet the University's minimum English language requirements which is normally at least 6.0, with no component below 5.5 in the International English Language Testing System (IELTS).

For more information on the specific requirements for each of the above courses, visit
www.tees.ac.uk/postgraduate_courses/engineering/

Research degrees

Teesside University offers research degrees at Master of Philosophy (MPhil) and Doctor of Philosophy (PhD) level. For details of available research opportunities please visit
https://www.tees.ac.uk/sections/research/pg_research_opportunities.cfm

Contact details

Website: www.tees.ac.uk/schools/sse

Email: sse-admissions@tees.ac.uk

Tel: +44 (0)1642 738800 (admissions)
+44 (0)1642 342499 (general enquiries)

Further information

Any enquiries relating to the courses listed in this document should be directed to the relevant university.

Please check the accreditation status of individual courses with the relevant university or with Engineering Council at www.engc.org.uk/acad