Course Summary: March 29, 2026

Chemical Engineering with Year in Industry MEng Honours

- UCAS code: **H815**
- Full time
- 4 years

This professionally accredited MEng Honours degree includes a 12-month paid work placement, boosting your practical skills and preparing you for a rewarding career at the cutting edge of science and technology.

You are currently viewing course information for entry year: **2026**

Next start date:

- September 2026

Tuition fees (Year 1)

- Home: **£9,790**
- International: **£30,700**

Entry requirements and offers

- A-Level: **AAB**
- IB: **34 points**

UCAS Institution name and code:

- NEWC / N21

Undergraduate Open Day

Start your university journey. Find where you belong. Friday, June 26 (9:00-16:00) Saturday, June 27 (9:00-16:00)

Book your place now

Course overview

You'll study a broad curriculum covering the theory and practical application of chemical engineering, including how to use industrial apparatus in our very own pilot plant.

In your third year you spend a paid year in industry, gaining invaluable work experience and building industry contacts. You will work in a team of professional engineers and scientists to apply your knowledge to an industrial problem defined by your host company. Your technical skills will be assessed through an industrial design project and you complete selected chemical engineering topics by distance learning.

The School and the University Careers Service will help you to find potential employers and guide you through the application process. We have strong links with over 100 companies, including:

- P&G
- MSD
- ExxonMobil

On return to University in your fourth year, you study a selection of topics that are tailored to further develop the technical expertise you gain on your placement.

BEng or MEng?

Both our BEng degree and specialist MEng degrees provide a pathway to becoming a Chartered Engineer. This is one of the most recognisable international engineering qualifications.

Our MEng degrees are a direct route to becoming a Chartered Engineer (CEng). You don't need to study any more qualifications after your degree to work towards chartered status.

Our three-year BEng degree can also lead to Chartered Engineer status. However, you'll need to complete further study, such as an approved master's degree.

Your course and study experience - disclaimers and terms and conditions
Please rest assured we make all reasonable efforts to provide you with the programmes, services and facilities described. However, it may be necessary to make changes due to significant disruption, for example in response to Covid-19.

View our Academic experience page, which gives information about your Newcastle University study experience for the academic year 2025-26.

See our terms and conditions and student complaints information, which gives details of circumstances that may lead to changes to programmes, modules or University services.

Additional information

Flexible degree structure

All of our Chemical Engineering degrees (except our Industry degree), cover the same study programme for the first three years. This means that transfer between our degrees (except the Industry degree) is possible up to the end of Stage 3 should you find your interests change, providing you achieve the appropriate academic standard.

Transfer to or from our Industry degree is also possible up to the end of Stage 2, providing you achieve the appropriate academic standard.

Quality and ranking

Professional accreditation and recognition

All professional accreditations are reviewed regularly by their professional body.

Modules and learning

Modules

The information below is intended to provide an example of what you will study.

Most degrees are divided into stages. Each stage lasts for one academic year, and you'll complete modules totalling 120 credits by the end of each stage.

Our teaching is informed by research. Course content may change periodically to reflect developments in the discipline, the requirements of external bodies and partners, and student feedback.

Optional module availability
Student demand for optional modules may affect availability.

Full details of the modules on offer will be published through the Programme Regulations and Specifications ahead of each academic year. This usually happens in May.

To find out more please see our terms and conditions

Stage 1 will provide an introduction to the core principles of engineering, maths, and science. You will focus on chemistry, thermodynamics, the principles of chemical engineering, and engineering mathematics.

Modules

Compulsory Modules	Credits
Thermodynamics	10
Transfer Processes	25
Computing and Numerical Methods	10
Data Analysis in Process Industries	5
Chemical Engineering Laboratory	10
Chemistry for Chemical Engineers	20
Principles of Chemical Engineering	20
Engineering Mathematics I	20

During Stage 2, you will further develop the knowledge and skills gained in Stage 1, alongside areas such as separation processes, reactor engineering, and process measurement.

Modules

Compulsory Modules	Credits
Separation Processes 1	20
Transfer Processes 2	20

Reactor Engineering	10
Introduction to Bioprocessing and Chemical Process Development	10
Thermodynamics 2	10
Process Measurement, Dynamics & Control	10
Chemical Engineering Laboratory II	10
Safety, Risk and Engineering Practice	20
Engineering Mathematics II	10

Stage 3 will be spent on placement within a chemical/process engineering company. During this time, you'll work as part of a team of professional engineers on an industrial problem defined by your host company. You'll also be able to complete chemical engineering modules via distance learning.

This is subject to successful completion of Stage 2 with an overall pass threshold of 65%.

Modules

Compulsory Modules	Credits
Industrial Design Project	60
Process Control (Industry)	10
Chemical Engineering Knowledge (Industry)	50

In your final stage, you will return to the university and study carefully selected modules, chosen to enhance the technical experience gained during your placement. You will also complete a research project and individual design project.

Modules

Compulsory Modules	Credits
Separation Processes 2	15
Reactor Systems Engineering	15
Advanced Design Project	20
MEng Research Project	60
Optional Modules	**Credits**
Process Intensification	10
Big Data Analytics in the Process Industries	10
Bioprocess Engineering	10
Formulated Products	10

Teaching and assessment

Teaching methods

Our strong links with industry experts and focus on industry skills ensure you'll graduate fully equipped for a career in the chemical engineering sector.

Your studies include:

- problem-based learning for the first three years based around industrial case studies – excellent preparation for life as a professional engineer
- lectures delivered by practising industry experts covering issues surrounding safety management and environmental protection
- industry representation on our Board of Studies with direct input into our degrees
- industry links with over 100 chemical engineering companies, resulting in sponsorship and placement opportunities and plant visits

We use case study-led teaching, so your learning has real-world relevance. Teaching is through a combination of:

- lectures

- tutorials
- seminars
- computer practice sessions
- extensive practical laboratory work
- group work on case studies and design projects

Assessment methods

You'll be assessed through a combination of:

- Assessments
- Assignments – written or fieldwork
- Case studies
- Coursework
- Dissertation or research project
- Examinations – practical or online
- Group work
- Practical sessions
- Presentations
- Projects
- Reflective report/journal
- Reports

Skills and experience

Research skills

During your final stage, you will complete a substantial research project. You will also develop comprehensive research skills throughout your degree and during your year in industry.

Business skills

In Stage 3, you will embark on a fully accredited, paid work placement with an approved company. This will allow you to gain invaluable work experience while

also building an enviable network of industry contacts.

Practical skills

Throughout your studies you'll reinforce your learning and gain hands-on experience through:

- a 12-month placement in industry
- practical sessions carried out in our Pilot Plant and Millennium Lab
- work on real-world engineering projects informed by industry-leading companies
- experience with industry-standard chemical engineering software in our dedicated computer suites
- cutting-edge process control software and equipment in our dedicated Process Control Lab, co-designed with our industrial partner Honeywell and used for industrial training

Opportunities

Study abroad

Experience life in another country by choosing to study abroad as part of your degree. You'll be encouraged to embrace fun and challenging experiences, make connections with new communities and graduate as a globally aware professional, ready for your future.

You can choose to spend up to a year studying at a partner institution overseas.

If you choose to study abroad, it will extend your degree by a year.

Find out more about study abroad

Work placement

Get career ready with a work placement and leave as a confident professional in your field. You'll apply to spend 9 to 12 months working in any organisation in the world, and receive University support from our dedicated team to secure your

dream placement. Work placements take place in Stage 3.

You'll gain first-hand experience of working in the sector, putting your learning into practice and developing your professional expertise.

Placements are subject to availability.

Find out more about work placements

Facilities and environment

Facilities

You'll have access to a great range of facilities and equipment during your time at Newcastle, including:

- a state-of-the-art BioLab, providing access to a range of small-scale unit operations and the latest equipment
- a recently upgraded pilot plant laboratory
- modern bench-top experimental equipment
- an interactive video teaching system
- high-specification fume cupboards for handling volatile chemicals

- two dedicated computing suites, running specialised industry-standard computer software

Support

To support you in your studies, all new students entering year 1 or year 2 will receive a start-up pack containing essential personal protective equipment.

You'll be supported by a personal tutor (an academic member of staff) throughout your degree. They can help you with academic and personal issues.

You'll also have access to a peer mentor (a fellow student) in your first year. They can help you settle in and answer any questions you have.

Your future

Chemical Engineering is a truly global profession with worldwide opportunities leading to well-paid and rewarding careers.

As a chemical engineering graduate with industry experience, you'll be highly employable and possess valuable transferable skills, such as problem solving and innovation.

Many of our graduates go on to work for high-profile employers within sectors including:

- pharmaceuticals
- chemicals
- energy
- oil and gas
- water
- environment
- biotechnology

Recent graduates have taken up roles including:

- chemical engineer

- energy marketing & trading analyst
- graduate engineer
- process engineer
- technology risk associate

within companies such as:

- Nestle
- Nissan
- Mott MacDonald
- British Steel
- Proctor & Gamble
- Reckitt Benckiser Group
- Amec Foster Wheeler

Industry links

Strong industry links ensure you will receive the most relevant, up-to-date teaching, while providing opportunities for guest lectures, plant visits, and your industry placement.

Consultants from industry deliver classes on current industrial practice, providing the latest insight into issues such as safety and sustainability.

Make a difference

Careers support

Our Careers Service is one of the largest and best in the country, and we have strong links with employers. We provide an extensive range of opportunities to all students through our ncl+ initiative.

Visit our Careers Service website

Recognition of professional qualifications outside of the UK

If you're studying an **accredited degree** and thinking about working in Europe after you graduate, the best place to find current information is the UK Government's guidance on recognition of UK professional qualifications in EU member states. This official resource explains whether your profession is regulated in another country, what steps you need to take, and which organisation you should contact.

Find out more...

- Go online for information about our full range of degrees: **www.ncl.ac.uk/undergraduate**
- Watch videos about student life in Newcastle by visiting our YouTube channel at **www.youtube.com/@newcastleuni**
- Watch a virtual tour of our campus at **https://youtu.be/vJUfHcqB7l8?si=8IUrf7kTxXbgdfr1**
- Book for an Open Day to come and see us in person **www.ncl.ac.uk/openday**
- Contact us online at **www.ncl.ac.uk/enquiries** or phone +44 (0)191 208 3333

This brochure is created from web content and is up to date at the time of creation (see the first page for creation date). If you are on screen you are able to use the live links that are highlighted in blue. If reading in print, the URLs provided above will help you to navigate back online. Full details of the University's terms and conditions, including reference to all relevant policies, procedures, regulations and information provision, are available at: **https://www.ncl.ac.uk/student-welcome/student-contract/**