Mechanical Engineering with Foundation Year
MEng Honours

A world-class university in a world-famous city

UCAS code H305
5 Years

www.ncl.ac.uk/ug/H305
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Want to study mechanical engineering at Newcastle, but don’t meet the entry requirements? Take a foundation year to develop the knowledge you need to progress to one of our four-year Mechanical Engineering MEng degrees.

You will study topics such as:
- foundation mathematics
- applied mechanics
- material science

On successful completion of your foundation year you are guaranteed entry to an engineering degree programme at Newcastle.

Highlights of this degree

Who is this course for?
If you don’t have mathematics and/or science at the appropriate level to apply for our engineering degrees, this course is for you.

If you have proven ability in other subjects, it gives you the opportunity to develop the knowledge you need to apply to an engineering degree here.

This course is also appropriate if you have technical or vocational qualifications or are from a different educational system.

What does it lead to?
This course gives you with the knowledge you need to progress to one of our three- or four-year mechanical engineering degrees:
- Mechanical Design and Manufacturing Engineering MEng Honours (HH37)
- Mechanical Engineering BEng Honours (H300)
- Mechanical Engineering MEng Honours (H301)
- Mechanical Engineering with Bioengineering MEng Honours (H3H8)
- Mechanical Engineering with Mechatronics MEng Honours (H3H6)
- Mechanical and Low Carbon Transport Engineering MEng Honours (H390)

If you are not sure which engineering discipline you are interested in, you should apply for the general Engineering with Foundation Year degree.

This allows you to delay your choice of engineering discipline until the end of the foundation year.

BEng or MEng?
We offer engineering degrees at two levels - BEng and MEng. Both provide a pathway to becoming a Chartered Engineer (CEng). This is one of the most recognised international engineering qualifications.

Our Master of Engineering (MEng) degrees are a direct route to becoming chartered. You don’t need to study any more qualifications after your degree to achieve chartered status.

Our BEng degrees can also lead to Chartered Engineer status. However, you’ll need to complete further study, like an approved Master’s degree.

Visit the Engineering Council’s website for information about the benefits of becoming chartered.

Facilities and support
Study at Newcastle and you will join a vibrant community in the School of Engineering.

Facilities
Our wide range of mechanical engineering laboratories include:
- labs for design-make-test projects: making and testing machines and structures
- strengths (testing) labs with machines up to 500kN & access to machines up to 8MN
- mechatronics/electronics labs for programming robots and automated devices
- bio-engineering lab for bio-materials manufacture and testing of components
- manufacturing lab with good selection of modern CNC machine tools
- composite materials lab with fire test facilities
- state-of-the-art CAD and CAE 3D design facilities
- He-Ion and other microscopes with resolutions down to 0.3nm
- wide range of rapid prototyping facilities for projects and research
- engine test cells, wind-tunnel and water flow channels with laser flow measurement
- Formula Student car design, build and test facilities
- gear and drive system testing machines up to 8MW capacity
- our own 1750hp main-line diesel-electric locomotive

Support
To support you in your studies, all new students entering year 1 or year 2 will receive:
- a tablet so you can download the online learning resources you’ll need for your course (helping us to make our campus...
more sustainable); a start-up pack containing essential personal protective equipment and text books.

You will have an academic member of staff as a personal tutor throughout your degree. They can help with academic and personal issues.

Peer mentors will help you in your first year. They are fellow students who can help you settle in and answer any questions you have.

Social activities
There are a range of social activities to help you settle into our community of 600 students. For example, you can compete in the Institution of Mechanical Engineers’ Formula Student competition to develop a high performance single-seat racing car, which is then put to the test at the famous Silverstone Circuit.

Our Student Forum is a popular place to relax.

Course Details

Modules for 2019 entry

Please note
The module and/or programme information below is for 2019 entry. Our teaching is informed by research and modules change periodically to reflect developments in the discipline, the requirements of external bodies and partners, student feedback, or insufficient numbers of students interested (in an optional module). To find out more read our terms and conditions.

Module/programme information for 2020 entry will be published here as soon as it is available (end of May 2020).

Our degrees are divided into Stages. Each Stage lasts for an academic year and you need to complete modules totalling 120 credits by the end of each Stage. Further information, including the credit value of the module, is available in each of the module descriptions below.

Stage 0

Compulsory modules
SFY0003 Foundation Mathematics 1
SFY0004 Foundation Mathematics 2
SFY0009 Foundation Year Project
SFY0010 Mechanical Science
SFY0011 Applied Mechanics 0
SFY0012 Electrical and Electronic Engineering 0
SFY0013 Materials Science 0
If you do not have A level Chemistry (or equivalent), you will also take the following module:
SFY0005 Foundation of Chemistry

Optional modules
You take modules from the following list to bring your total number of credits up to 120:
CSC6001 Computer Applications
SFY0001 Basic Mathematics
SFY0002 Basic Statistics
SFY0006 Applications of Chemistry *
SFY0008 IT and Communications
SFY0014 Foundation Physics A2
*If you intend to progress to degrees in Chemical Engineering you must undertake SFY0006 Applications of Chemistry as part of your optional modules.

Teaching and assessment
You’ll learn from staff across various departments of our engineering and science schools.
You spend approximately 20 hours per week in **taught classes**. You also spend a further 20 hours attending **tutorials** and completing **laboratory reports**.

Assessment is by in-course assessment such as laboratory reports and tutorial exercises, or by examinations.

Teaching and assessment methods may vary from module to module. More information about each module including specific assessment methods, credits and contact hours, can be found in the Course Details section.

**Careers**

**Mechanical engineering careers**

Newcastle University’s engineering students are highly regarded in the graduate marketplace, with opportunities available in the UK and worldwide.

Most of our graduates are employed in industry, where they are involved in research and development, design, production and manufacturing, quality assurance, and consultancy.

Studies show that engineering graduates are earning more than the average graduate salary six months after leaving university, and, if they become Chartered, their average salaries continue to increase faster than inflation.

Some engineering graduates undertake further study, obtaining MSc and PhD qualifications before entering their chosen career, whether that is in industry or in an academic career.

Others use the skills they have gained during their course to embark on careers in management, administration, accounting, teaching and law. In fact, you can enter almost any career you want.

Find out more about the career options for Mechanical Engineering from Prospects: The UK’s Official Careers Website.

Newcastle University also has particularly strong links with all branches of the armed services and is currently one of the five institutions who are partners in the Ministry of Defence’s Defence Technical Undergraduate Scheme (DTUS), supporting students interested in pursuing careers as technical officers.

**What our graduates go on to do: employment and further study choices**

See what our recent graduates went on to do and view graduate destinations statistics. These statistics are based on what graduates were doing on a specific date, approximately six months after graduation. Take a look at the most recent data available for our graduates.

The destination data is available in varying levels, beginning with the University and moving through Faculty and School down to individual course reports. This final level may give you some useful ideas about possible options after your course or a course you are considering.

**Careers and employability at Newcastle**

Newcastle University consistently has one of the best records for graduate employment in the UK.

96% of our 2017 UK-domiciled UG/PG graduates progressed to employment or further study within six months of graduating.

85.5% of our graduates are in graduate level employment or further study within six months of graduating.

We provide an extensive range of opportunities to all students through an initiative called ncl+. This enables you to develop personal, employability and enterprise skills and to give you the edge in the employment market after you graduate.

Our award-winning Careers Service is one of the largest and best in the country, and we have strong links with employers.

**Fees & Funding**

**Tuition Fees (UK students)**

**2020 entry:**
Tuition fees for 2020 entry are not yet available.

**2019 entry:**
£9,250

For programmes where you can spend a year on a work placement or studying abroad, you will receive a **significant fee reduction** for that year.

Some of our degrees involve **additional costs** which are not covered by your tuition fees.

**Please note:**
The maximum fee that we are permitted to charge for UK students is set by the UK government.

As a general principle, you should expect the tuition fee to increase in each subsequent academic year of your course, subject to government regulations on fee increases and in line with inflation.

See more information on all aspects of **student finance** relating to Newcastle University.
Tuition Fees (EU students)

2020 entry:
Tuition fees for 2020 entry are not yet available.

2019 entry:
£9,250 You will pay the same tuition fees as UK students for the duration of your course.

For programmes where you can spend a year on a work placement or studying abroad, you will receive a significant fee reduction for that year.

Some of our degrees involve additional costs which are not covered by your tuition fees.

Please note:
As a general principle, you should expect the tuition fee to increase in each subsequent academic year of your course, subject to government regulations on fee increases and in line with inflation.

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As a general principle, you should expect the tuition fee to increase in each subsequent academic year of your course, subject to government regulations on fee increases and in line with inflation. See more information on all aspects of student finance relating to Newcastle University.

Tuition Fees (International students)

2020 entry:
Tuition fees for 2020 entry are not yet available.

2019 entry*:
£22,110

*Please note:
You will be charged tuition fees for each year of your degree programme (unless you are on a shorter exchange programme).
The tuition fee amount you will pay may increase slightly year on year as a result of inflation.
If you spend a year on placement or studying abroad as part of your degree you may pay a reduced fee for that year.

See more information on all aspects of student finance relating to Newcastle University.

Scholarships and Financial Support (UK students)

You may be eligible for one of a range of Newcastle University Scholarships in addition to government financial support.

Newcastle University Scholarships
Government financial support

Scholarships and Financial Support (EU students)

You may be eligible for one of a range of Newcastle University Scholarships in addition to government financial support.

Newcastle University Scholarships
Government financial support

Scholarships and Financial Support (International students)

We offer a range of scholarships to eligible international students:
Vice-Chancellor’s International Scholarships
Vice-Chancellor’s Excellence Scholarships
Vice-Chancellor’s Global Scholarships

We also offer International Family Discounts which are available for all international students with a close family member who has graduated from or is now studying at Newcastle University.

Some of our subject scholarships and sports scholarships are also available for international students.

Apply

Applying to Newcastle University through UCAS

To apply for undergraduate study at Newcastle you must use the online application system managed by the Universities and Colleges Admissions Service (UCAS).

UCAS codes for Newcastle University
- institution name - NEWC
- institution code - N21

UCAS buzzword

Ask your teacher or adviser from your school or college for the UCAS buzzword. You need the buzzword when you register on the Apply system. This makes it clear which school or college you are applying from.

All UK schools and colleges and a small number of EU and international establishments are registered with UCAS.

If you are applying independently, or are applying from a school or college which is not registered to manage applications, you will still use the Apply system. You will not need a buzzword.

Making your application

On the UCAS website you can also find out more about:
- application deadlines and other important dates
- offers and tracking your application

Application decisions and enquiries

Find out more about our admissions process and who to contact if you need help with your application.