

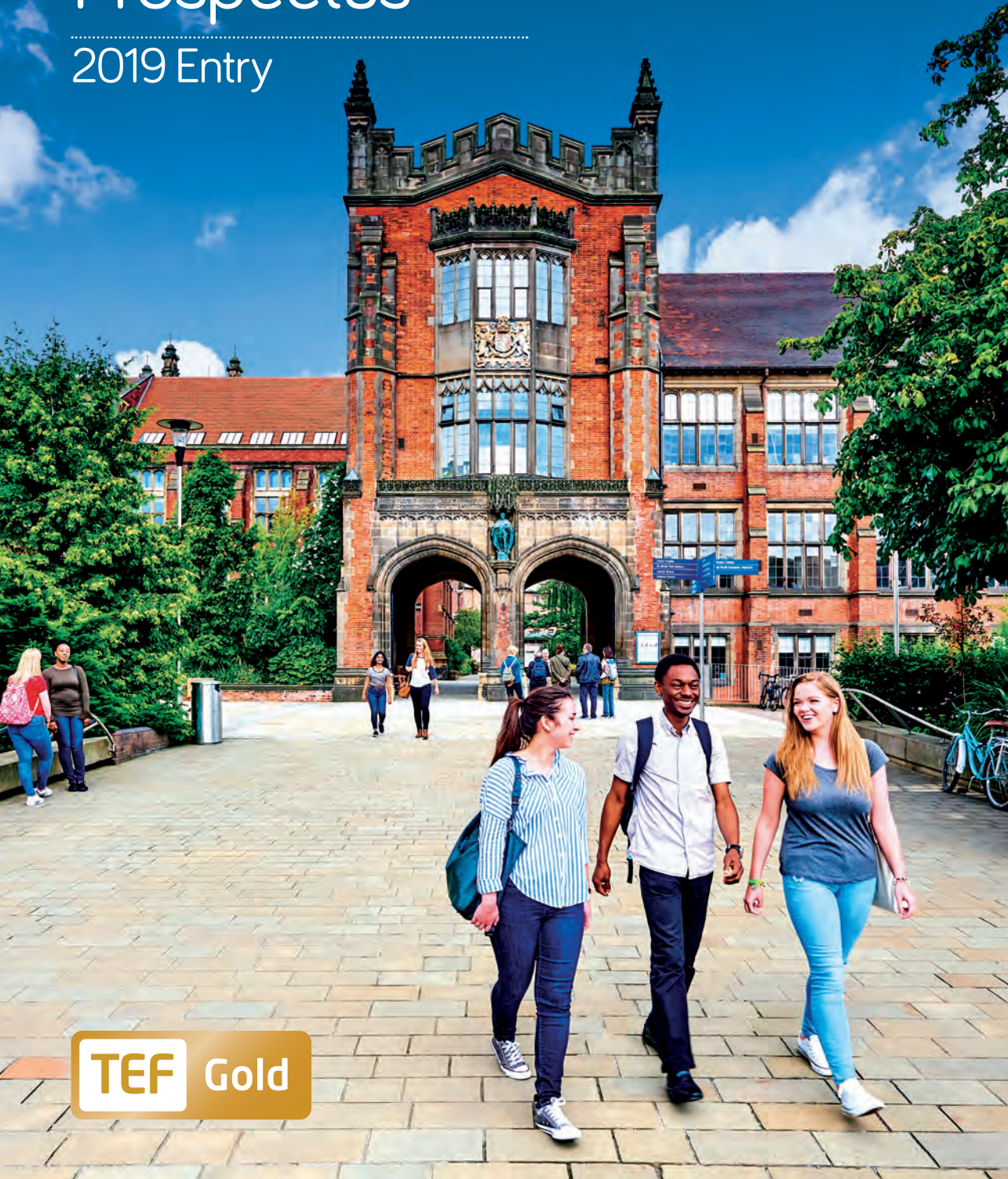


**Newcastle  
University**

UK | Malaysia | Singapore

# Undergraduate Prospectus

2019 Entry



**TEF**

**Gold**





BOOK ONTO  
AN **OPEN DAY**:  
29 JUNE  
30 JUNE  
15 SEPT 2018

[www.ncl.ac.uk/openday](http://www.ncl.ac.uk/openday)

# Open Days

There's no better way to get a feel for Newcastle University than to visit us. Book onto an Open Day on 29, 30 June, or 15 September 2018 and:

- ▶ explore our **beautiful campus** and city
- ▶ experience our **world-famous welcome**
- ▶ get **insider info** from our current students
- ▶ meet our staff and **inspirational academics**
- ▶ visit our student **accommodation**

Over 40,000 visitors register to attend our Open Days each year and 95% of our visitors in 2017 said they were more likely or as likely to apply after visiting us! So come and see for yourself.

Book onto an Open Day now: [www.ncl.ac.uk/openday](http://www.ncl.ac.uk/openday)

If you can't make it to an Open Day, see pages 26–27 for information on other ways to visit and engage with us.



# Welcome to Newcastle

Newcastle University is a world-class research and teaching university, ranked in the top 200 of the world's best universities.

We are proud to have been awarded Gold status by the UK government in the Teaching Excellence Framework in recognition of our provision of consistently outstanding teaching, learning and graduate outcomes for our students.

We are consistently highly ranked in the UK for student experience, and our commitment to graduate success is demonstrated by our strong graduate employability record.

As a university we are committed to fair access and diversity and are proud of our international outlook, with a student community that includes students from throughout the UK and 138 countries worldwide.

We look forward to welcoming you here.



Professor Chris Day, Vice-Chancellor and President

**RUSSELL  
GROUP**

**TEF Gold**



## Contents

Why choose Newcastle University? ..... 04

**Teaching excellence** ..... 06

Research-informed teaching ..... 08

An outstanding learning experience ..... 10

Facilities and resources ..... 12

Work placements ..... 14

Study abroad ..... 16

Global Newcastle ..... 18

**Discover Newcastle**

Great student city ..... 20

Visit us ..... 26

**Student experience**

Support for you ..... 28

Accommodation ..... 30

Students' Union ..... 32

Sport ..... 34

Arts and culture ..... 36

**Your future**

Careers ..... 38

**What can I study?** ..... 41

*Subjects are listed alphabetically. Alternatively, see our Degree index on pages 228–230*

Newcastle University London ..... 213

**Essential information**

Your application ..... 219

International students ..... 222

PARTNERS Programme ..... 224

Student finance ..... 226

Working with schools and colleges ..... 227

Degree index ..... 228

Disclaimers and acknowledgements ..... 231

Join the conversation ..... 232

Check online for the most up-to-date information: [www.ncl.ac.uk/undergraduate](http://www.ncl.ac.uk/undergraduate)



# Why choose Newcastle University?

We offer an outstanding student experience and world-class education for life. We aim to engage, challenge, support and inspire you to fulfil your potential during your time at University.



**8<sup>TH</sup>**  
IN THE UK  
FOR STUDENT  
EXPERIENCE  
Times Higher Education Student  
Experience Survey 2017



Why choose Newcastle University?

**95%**  
OF OUR UK & EU  
GRADUATES ARE  
IN EMPLOYMENT  
OR FURTHER STUDY

95% of our 2016 UK and EU graduates progressed to employment or further study within six months of graduating. Destinations of Leavers from Higher Education survey 2015-16



JOIN  
**24,000**  
STUDENTS  
FROM  
**138**  
COUNTRIES



LIVE IN ONE OF THE  
**UK'S  
FAVOURITE  
STUDENT  
CITIES**

3rd in the UK for city life,  
Whatuni Student Choice Awards 2017



GLOBAL  
**TOP  
200**  
UNIVERSITY

175th in the Times Higher  
Education World University Rankings  
2017-18 and joint 161st in the  
QS World University Rankings 2018



**GOLD  
AWARD**  
FOR TEACHING  
EXCELLENCE  
IN THE TEACHING  
EXCELLENCE  
FRAMEWORK (TEF)







# Teaching excellence

We've been awarded the TEF Gold Award in recognition of our exceptional teaching and learning provision. Our students report outstanding levels of satisfaction with academic support and consistently high levels of satisfaction with teaching, assessment and feedback. We educate you for life and ensure an excellent educational experience.

## Why is TEF Gold important?

Introduced by the government to recognise teaching excellence in UK higher education, we're one of only eight research-intensive Russell Group universities to achieve Gold. This recognises that we deliver consistently outstanding teaching, learning and outcomes for our students.

## Research-led teaching

Our degrees have been designed to ensure that you're constantly challenged and empowered. Our commitment to research-led teaching means that you'll learn from leading academics working on the latest discoveries at the forefront of research and scholarship. To find out more about research-led teaching, see page 8.

## Outstanding resources

We offer outstanding digital and physical resources to enhance your learning experience. From top-rated virtual learning to state-of-the-art buildings and teaching spaces, we invest in resources that support you. Read more about our range of facilities and resources on page 12.

## Exceptional support

Our exceptional support services help you to achieve outstanding educational outcomes. A personal tutor and student peer mentor will help you settle into academic life, and inspire and care for you (see page 28). If you need extra help developing the numeracy and writing skills you need to excel at Newcastle, we offer two study support services: Maths-Aid and the Writing Development Centre.

## Collaborative and diverse learning community

Our inspirational academics work together with you to create engaging learning experiences. They'll help make you feel part of our inclusive and international learning community as soon as you begin your studies with us. Our staff includes a number of National Teaching Fellows, recognised by the UK Higher Education Academy (HEA) for excellent practice and outstanding achievement in teaching and learning. Each year our students celebrate their teachers through the Students' Union-run Teaching Excellence Awards.

## Graduate skills

We encourage all of our students to be creative, innovative and entrepreneurial. Our Graduate Skills Framework ensures your degree equips you with the skills you need to succeed during and after University. Covering everything from intellectual skills to personal enterprise, you'll develop essential attributes for the graduate job market, such as teamwork, problem solving, IT literacy and critical analysis. Most of our degrees offer the opportunity for you to build work experience into your studies (see page 14) and study abroad options provide opportunities to enhance your global outlook (see page 16).



YourSpace in the Philip Robinson Library



Library facilities



# Research-informed teaching

Join a Russell Group university where teaching is informed by our research-active staff. Develop your analytical skills in a research-intensive environment through the range of opportunities and mentoring that we provide.

## Making a difference

We believe our research should have an impact on the world around us. Our research focuses on addressing the major challenges facing society today. Our academics are developing knowledge and innovations in areas as diverse as health, culture, technology and the environment, such as:

- ▶ finding a way to reverse type 2 diabetes
- ▶ researching renewable energy sources
- ▶ pioneering new methods of IVF
- ▶ inspiring learning through self-organised learning environments
- ▶ helping cities adapt to the increasing demands of their population
- ▶ developing a new generation of prosthetic limbs
- ▶ using stem cells to treat corneal blindness
- ▶ protecting ancient monuments and heritage sites in war-torn countries

Recent examples of our students working alongside academics include:

- ▶ using biology to create a unique living lightbulb
- ▶ developing and launching a business news app
- ▶ uncovering a Roman villa in Somerset
- ▶ creating a stargazing community space in Kielder, Northumberland
- ▶ developing a sustainable way to brew beer

## Investing in you

We want to inspire and train the next generation of innovators. You'll learn from world-leading experts with a passion for their subject. Their research feeds directly into what you'll study, so you'll graduate with the very latest thinking in the field.

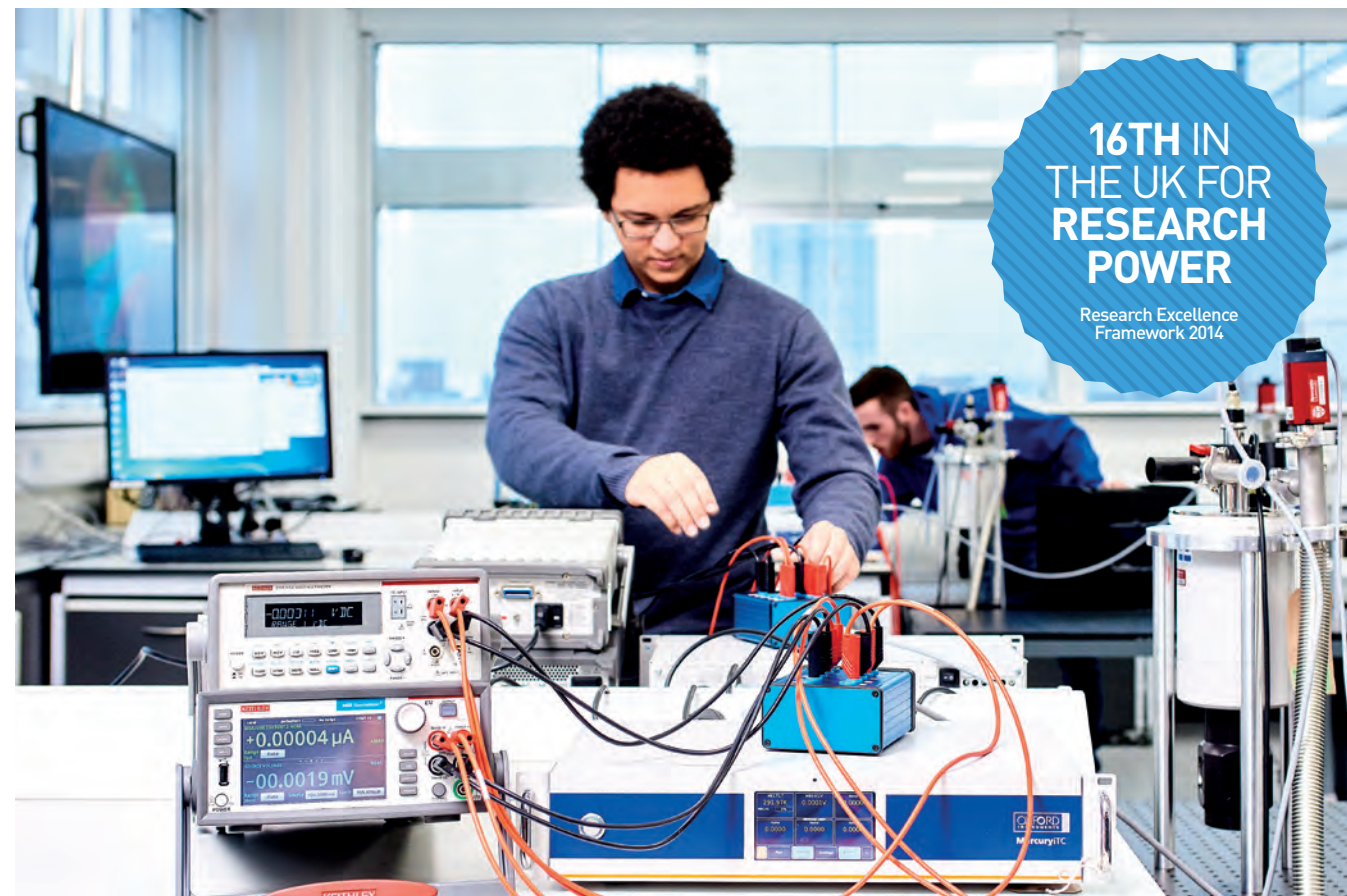
Our strong reputation for research means we attract substantial research income and top teachers, so we can invest in the best facilities and people to support your learning.

We are a founding member of the prestigious Russell Group of research-intensive UK universities. The majority of our research is ranked in the top two categories of 'world-leading' and 'internationally excellent' in the most recent Research Excellence Framework (2014).

## Get involved

You'll have plenty of opportunities to conduct your own research and make discoveries alongside academic staff. All students undertake a dissertation or research project, giving you the chance to study in depth a topic that interests you, and boost your CV with skills such as critical thinking and problem solving.

You could also spend your vacation on our Research Scholarship Scheme or apply for funding to conduct a research expedition overseas. Recently, our students have visited glaciers in Norway to investigate the impact of climate change and national parks in Costa Rica to study environmental changes to wetland and forests.



## Natalie's research experience

I've had lots of opportunities to get involved in research at Newcastle, ranging from going out into a field and collecting data, to being in a lab completing experiments.

Any research work I have done has been fully hands-on; aside from the necessary help and support from staff, I do all my own work, making any results my own.

I'm currently working on a project investigating the effects of alcohol on taste receptors. I have also worked with a local bioscience company on a new method of detecting lung disease. My research was then presented at an international conference by the director of the company and is being used to educate staff prior to the product launch.

**Natalie, Cellular and Molecular Biology  
BSc Honours**



# An outstanding learning experience

We challenge, empower and work with you to help you reach your full potential. We ensure that you actively influence your own learning and we also provide opportunities for you to shape your educational experience through feedback.

## Teaching methods

Studying at university is different to school and we support you to make that transition and grow in confidence. Our teaching methods are designed to engage and challenge you, to help you develop into an informed and critical thinker. They vary depending on your subject but generally include:

- **lectures:** listen to an academic introduce a topic and share their expert knowledge; leave with great ideas for further study to follow up in your own time
- **seminars:** engage with a tutor and fellow students in lively discussions about lecture material and your personal research; challenge your preconceptions and develop ideas
- **practical sessions:** get hands-on experience using industry-standard equipment or techniques, to prepare you for your professional future; for example, laboratory work or artefact handling
- **small group learning:** tackle a challenging project with other students and deliver findings to your class; test and reinforce your understanding, and develop skills for the workplace
- **self-study:** immerse yourself in our fantastic self-study facilities and explore your own path through the subject, developing unique expertise according to your interests
- **research:** conduct original research into a topic you're passionate about and build advanced knowledge that could open the door to your future career
- **fieldwork:** apply your studies in a practical way or observe and learn from professionals, from a visit to industry to an archaeological dig

## Assessment and feedback

We provide you with timely feedback in a variety of ways:

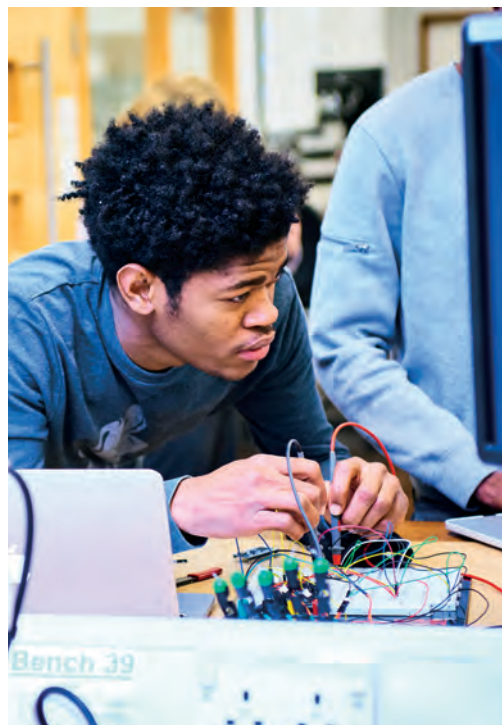
- written on your work
- in lectures, seminars, tutorials and practical sessions
- via our real-time online systems

Feedback may come from lecturers or from your student peers. We also support you to learn through reflection, by reviewing your work and the assessment criteria and by thinking about how you can improve in future assessments.

We also take your feedback seriously and build opportunities for both students and employers to shape our teaching, through student representation roles and employer panels.



Modern Languages seminar



Electrical and Electronic Engineering practical learning



Collaborative Study Café in the Walton Library

90% OF STUDENTS AGREE OUR STAFF ARE GOOD AT EXPLAINING THINGS

National Student Survey 2017

Some of the most valuable endorsements of our teachers come from our current students



Dr Sarah Campbell, School of History, Classics and Archaeology



Professor Stephen McHanwell, School of Medical Education

*'She uses unique assessment methods that enable students to truly become historians and experience living history.'*

*'He puts in extra effort when interacting with students giving us his time when we need help or want something explaining.'*



# Facilities and resources

At Newcastle your educational experience will be supported and enhanced by technology. You'll also benefit from award-winning library services and specialist facilities for your chosen subject.

## Technology enhanced learning

We're ranked first in the UK for virtual learning\*. Your personal Virtual Learning Environment (VLE) is available 24/7 to support your studies. Listen to lectures, read course handouts and have online discussions with lecturers and course mates. We have one of the most comprehensive lecture capture services in the UK. It captures audio and visual material to help you revisit lectures and enhance your understanding.

## IT facilities

Free WiFi, over 3,000 computers, plenty of printers and helpful IT support staff, are all available on campus. So, whether you want to work on an essay in a computer cluster, surf the web in the sun, or just need some advice, our IT Service is here to help. You can download the Newcastle University app to view your timetable, find a PC, manage your library account and get the latest Uni news.

## Library service

You'll spend a lot of your student life in the library and our library service is one of the best in the country. We've won multiple awards for our excellent customer service and 92% of our students are satisfied with the library resources and services (National Student Survey 2017). Our main library, the Philip Robinson, is open 24/7 during term time, so we're here whenever you need us. We also have two specialist libraries, the Walton Medical Library and the Law Library. You can also study in the Marjorie Robinson Library Rooms, with innovative digital learning spaces for individuals and groups. We have over one million print books, six million e-books, a range of specialist resources and knowledgeable librarians who can support students of all disciplines. [www.ncl.ac.uk/library](http://www.ncl.ac.uk/library)

\*International Student Barometer Autumn 2016 (out of 42 participating institutions)

## Learn a new language

If you'd like to learn a new language or keep up your current languages at University, become a member of our award-winning Language Resource Centre. We provide self-study materials in over 150 languages, from Arabic to Zulu, including over 3,000 international films. We run taster and improvement sessions and you can partner with a native speaker to practise your conversation skills. [www.ncl.ac.uk/language-resource-centre](http://www.ncl.ac.uk/language-resource-centre)

Why not take advantage of our University-Wide Language Programme which offers free classes in 10 languages? [www.ncl.ac.uk/sml/study/language-programme](http://www.ncl.ac.uk/sml/study/language-programme)

## Subject facilities

You'll have access to a range of specialist facilities related to your chosen subject.

- ▶ New £58m Urban Sciences Building, with cyber physical systems laboratory and decision theatre, home to our School of Computing
- ▶ New £34m Learning and Teaching Centre with state-of-the-art study spaces (due to open in 2019)
- ▶ An on-campus museum and art gallery
- ▶ A sea-going research vessel, coastal station and marine lab
- ▶ Two commercial farms and a biological field station
- ▶ Music studios and rehearsal spaces
- ▶ Anatomy labs and clinical skills suite
- ▶ On-campus language clinics and analysis labs
- ▶ Studios for architecture and art
- ▶ Media studios, recording and editing equipment
- ▶ Translation and interpreting suites
- ▶ Smart grid lab and energy storage test bed
- ▶ StuBrew, Europe's first student-run brewery, providing hands-on skills development and research into sustainable brewing processes








Student placement at Kuro Dragon

# Work placements

Stand out from the crowd in the competitive graduate jobs market by adding a year-long work placement to your degree. You'll enhance your CV with professional experience and, if you impress your host, you might even get a job offer on graduation!

## Boost your CV

Almost all of our degrees are available with the opportunity for you to spend between nine and 12 months in the workplace\*. Look out for the Work Placement icon  by your chosen degree.

You can apply to spend your work placement with any organisation, anywhere in the world\*\*. It's a great opportunity to boost your CV. When you graduate, you'll be able to offer employers a desirable combination of academic knowledge, professional skills and an understanding of the workplace.

You'll have the opportunity to develop new skills, find out what you enjoy and start to understand what career path is going to be best for you. You'll also make valuable professional connections and secure a reference that could help your next job application.

## How it works

You can apply for a work placement through your academic School or through the Careers Service Placement Year. You're responsible for sourcing your own placement, but you'll receive our full support to do so.

Our Careers Service is a great place to start your job search. Once you're ready to apply, you can access help to write a targeted CV and cover letter. If you secure an interview, you can get free interview training to help you prepare.

The support continues once you're on placement. A member of staff will be in touch with you regularly via email, Skype, or face to face visits, to check how you're getting on. You'll complete a University module while on your placement year to help you reflect on the skills you've developed and understand how to communicate these effectively to future employers.

\*A small number of exceptions apply; check our website for information. It's not possible to take both a work placement year and study abroad year on the same degree

\*\*International students should contact the Visa Team to discuss the impact on their UK visa

## Your placement extends your degree

**by a year.** Like any job, placements are subject to availability and aren't guaranteed. Some terms and conditions apply, so visit our website to find out more.

Read more about the careers support that we provide on pages 38–40.

## Other opportunities

There are plenty of other opportunities to gain work experience and to enhance your personal and professional development:

- **ncl+ Award:** gain accreditation from the University for any additional volunteering or work experience you undertake with our ncl+ Award scheme
- **JobsOC:** our on-campus jobs agency offers work at the Uni that fits around your studies
- **paid work experience:** available during term time and in vacations, this includes summer studentships in our University labs or the Newcastle Work Experience programme
- **Career development modules:** undertake work experience, volunteering or paid work as an accredited part of your degree
- **volunteering:** find worthwhile unpaid roles through the Students' Union volunteering scheme

Our Pride of Newcastle University Awards recognise your achievements and contribution to university life or the wider community through your extra-curricular activities. We celebrate students who are involved in activities such as clubs or societies, volunteering, fundraising and starting a new business.



# Study abroad

Take advantage of our wide range of opportunities and you could find yourself studying in the USA or Europe, or on an expedition in South East Asia. So, pack your bags and your sense of adventure!

## Where will you go?

As an international university, we support and encourage our students to take advantage of the study and work opportunities abroad that we offer\*. Every year, hundreds of our students experience different cultures, grow in confidence and make friendships that will last a lifetime, as well as developing impressive credentials for their CV.

Our partners include some of the world's most highly ranked institutions, such as the University of Sydney, University of Hong Kong, National University of Singapore and the University of Illinois at Urbana-Champaign.

We offer study destinations throughout the world – in the Americas, Asia, Australasia and Europe, where France, Spain, Germany and the Scandinavian nations are the most popular choices.

Opportunities can last from a single semester to a full year. You can study at a university or work abroad.

Our dedicated Study Abroad team is available to support you, so you can travel confidently, knowing you're only ever a phone call away from someone who can help.

Look out for the aeroplane symbol ✈ in our course section to see if your chosen degree offers study abroad.

For up-to-date information about the availability of grants for study and work placements in Europe, for example under the Erasmus+ scheme, please check our website.

\*It's not possible to take both a study abroad year and work placement year on the same degree



## Catherine's year abroad



I decided to study in Barcelona for my year abroad and it was easily one of the best academic decisions I have ever made. I am so grateful to have taken the opportunity to study at the Universitat de Barcelona and experience a different kind of university life.

Living in Barcelona has positively shaped my life and I would actively encourage other students to go abroad. I met friendly, kind-hearted people who helped me settle into the new culture, as

well as improve my Spanish. They also taught me how to enjoy life to the fullest!

I made the best friends that I could have ever asked for and I met so many people from around the world, which has encouraged me to travel more and experience different cultures.

Studying abroad is the perfect time to develop a sense of independence in a new country while also having one of the best university experiences.

**Catherine, International Business Management BSc Honours**



# Global Newcastle

Benefit from studying in our diverse and intercultural community. Our international outlook, combined with our global reputation for academic excellence, mean we're a first-choice destination for students from around the world.

## Our locations

We're an internationally focused institution with a presence in the UK, Singapore and Malaysia.

**Newcastle University London:** our presence in London, a major world city for business, finance and commerce, allows us to offer an industry-immersive education that enables students to realise their potential and become tomorrow's business leaders. It also facilitates our partnerships with a range of national and international businesses. For information about undergraduate degrees and preparation courses at Newcastle University London see pages 213–217. [www.ncl.ac.uk/london](http://www.ncl.ac.uk/london)

**Newcastle University International Singapore (NUIS):** we deliver joint degrees in Singapore through our partnership with the Singapore Institute of Technology (SIT). The recently opened Newcastle Research & Innovation Institute (NewRIIS) provides new cutting-edge facilities for research and study. [www.ncl.ac.uk/singapore](http://www.ncl.ac.uk/singapore)

**Newcastle University Medicine Malaysia (NUMed):** our campus in Malaysia offers medical and biomedical degrees from high-spec, purpose-built facilities in EduCity, Johor. [www.ncl.ac.uk/numed](http://www.ncl.ac.uk/numed)

## Partnerships

We have partnerships with 300+ international institutions across Europe, the Americas and Asia, providing you with opportunities such as study abroad and international research.

**Loyola Study Abroad Center:** American students can study with us through our joint study abroad center, in partnership with Loyola University Maryland, USA. [www.loyola.edu/academics/newcastle](http://www.loyola.edu/academics/newcastle)

## Study abroad at Newcastle University:

students from our partner universities can spend a year or semester on exchange at Newcastle University. There are options available for one or two semesters for students studying at any institution around the world. [www.ncl.ac.uk/mobility/newcastle](http://www.ncl.ac.uk/mobility/newcastle)

## Go global

Prepare for life after university, wherever in the world that might be, and broaden your university experience with us.

**Learn another language:** our University-Wide Language Programme provides free language classes, and our award-winning Language Resource Centre is a great place to practise

**Work abroad:** most of our degrees include a year-long work placement, which you can apply to take abroad (see page 14) or you could organise a vacation work placement abroad with help from our Careers Service

**Organise an overseas research expedition:** our Expeditions Committee can help you plan one and, in some cases, provide financial help

**Take a study trip:** many of our degrees offer optional study trips and fieldwork in other countries

## Our alumni community

Your university experience is for life, and we're committed to making a significant contribution to the lives and success of our graduates long after graduation.

We have a global network of more than 190,000 graduates from over 170 countries around the world. So, wherever you find yourself, you'll never be far from a fellow Newcastle graduate! We hold a range of events every year across the globe, from social occasions and reunions to careers guidance and professional networking opportunities, ensuring that, as a holder of a Newcastle University degree, you remain part of a very special community. [www.ncl.ac.uk/alumni](http://www.ncl.ac.uk/alumni)



Newcastle University London



Newcastle University Medicine Malaysia (NUMed)



Newcastle University London



Newcastle University International Singapore (NUIS)



# Great student city

Newcastle is a beautiful and friendly city with a big personality. Just a short walk from campus you'll find an abundance of world-class arts and culture, sport, shopping and nightlife. Or you can visit award-winning beaches and stunning countryside which are just a quick ride away. There really is something for everyone.

## Friendly welcome

Our city is welcoming, safe and multicultural. Our local 'Geordie' residents are famous for their warm, friendly and down-to-earth hospitality, so it's not surprising we've been voted a world top 100 student city by the QS Best Student Cities 2017. We're also number 1 place in the world to visit in 2018 in *The Rough Guide To The Best Places To Visit in 2018*. Students make up one in six of our city's diverse population, so it won't take you long to settle in and feel at home.

## A campus right in the heart of the city

We offer all the benefits of a campus university in our city-centre location. Our beautiful campus is based right in the centre of Newcastle, so you're never far from the action. Newcastle is also blessed with plenty of green space – visit the Quayside to walk the banks of the River Tyne, or take advantage of two parks which sit on the edge of campus.

## Affordable and fun

The cost of living in Newcastle is comparatively low, and with lower than average student rents you'll have more money left over to spend on the things you love. There are also plenty of student-friendly deals to help you make the most of your money and your time here. Our city-centre Grainger Market is packed with independent shops selling everything from fresh fruit and veg to vintage clothes.

## Easy to get around

You don't need a car to get around in Newcastle. Our Metro rail system has stations across the city, including one less than two minutes' walk from campus. Most places in the city are easy to reach and the majority of our student accommodation is within walking distance of campus. A lot of our students cycle around the city, and there are 1,500 bike spaces on campus.

## Close to the coast and countryside

The breathtaking Blue Flag beaches of Tynemouth – where you'll find golden sand, surf lessons and fish and chips – are only a 25-minute Metro journey from the city centre. The historic city of Durham is a 10-minute train ride away and the ancient castles, coast and countryside of Northumberland are also easily accessible by train, car or bus.

RATED  
NUMBER 1  
PLACE IN THE  
WORLD TO  
VISIT IN 2018

Rough Guides





There's so much to see and do in Newcastle, no matter what your interests are. We're proud of what our city has to offer.

### Sport

Sport is integral to Newcastle's identity. You can see a range of great sport right in the city centre, from football matches at St James' Park, to top-flight basketball games. International athletics and rugby union are just a Metro ride away and every year our city welcomes 50,000 runners taking part in the Great North Run half marathon.

### After dark

Geordies are sociable souls, creating a vibrant nightlife that is regularly voted among the best in the world. People flock to the city from all over the country to experience our wide range of evening entertainment. This includes comedy clubs, boutique bowling, film screenings, immersive theatre, late night cafés, clubs and bars, poetry readings and more.

### Shopping

Newcastle is a shopper's paradise. You'll find everything from big brands, chic boutiques, designer names and bargains galore. Eldon Square is one of the UK's largest city-centre malls, and Metrocentre, Europe's largest shopping centre, is just 15 minutes away by bus.

### Arts and culture

There are lots of opportunities to indulge your intellectual side in Newcastle. Our theatres include the Theatre Royal, which hosts productions from the Royal Shakespeare Company and National Theatre, and the contemporary Northern Stage on campus. Art galleries and museums range from ancient history to modern art, and include the BALTIC Centre for Contemporary Art, which is a converted flour mill on the banks of the Tyne and the campus-based Hatton Gallery.

### Cinema

Screens in the city centre show everything from Hollywood blockbusters to international arthouse films. The Tyneside Cinema is an art deco cinema showing cult classics and world films and there's an IMAX at the nearby Metrocentre.

**3RD IN  
THE UK FOR  
CITY LIFE**

Whatuni Student Choice  
Awards 2017

Newcastle city centre



Great North Run



Leazes Park, next to campus





## Music

From international acts such as The Killers and Katy Perry performing at the Metro Radio Arena, to folk and classical concerts at Sage Gateshead, our range of venues caters for all tastes. Make sure you check out The Cluny for smaller gigs – perfect for catching new bands that aren't quite ready to pack out the Arena.

## Comedy

Our city has a growing reputation for live comedy. Top comedians such as Russell Howard and Josh Widdicombe fill major venues in the city. The Stand Comedy Club welcomes established and up-and-coming acts and is a regular stop-off for comedians *en route* to Edinburgh Festival Fringe. Newcastle's improv group, The Suggestibles, are not to be missed.

## Food and drink

From the big name chains to homegrown independent cafés, there's plenty to suit all palates. Top chefs Jamie Oliver and Marco Pierre White have venues in town and there are plenty of culinary events and food markets throughout the year. Chinatown has lots of places to enjoy Asian cuisine, and we're spoilt for choice with a range of restaurants offering global flavours.

## Well connected

We're well connected to the UK via our city-centre coach and train stations, so it's easy to get around. Newcastle is just three hours from London by train or a short journey by plane. Or why not use our city as a base to explore further afield? Low-cost flights from our international airport make UK and European city breaks temptingly close.



BALTIC Centre for Contemporary Art



Students at Tynemouth Longsands beach



Newcastle's Quayside



Hadrian's Wall in Northumberland National Park



# Visit us

Our city-centre campus is beautiful, bustling and built around you. The best way to experience campus life is to come and visit us – we'd love to meet you!

## What to expect

Our campus is right in the heart of Newcastle. You'll find red brick buildings, contemporary architecture and plenty of green space. The majority of our teaching, support and student services are on campus, so everything you need is in one place. Most people on campus are students or staff so there's a real sense of community.

## Ways to visit

- **Book onto an Open Day on 29, 30 June or 15 September 2018:** find out everything that you need to know about life at Newcastle

- **Post-application Visit Days:** after you've applied, you may be invited to a Post-application Visit Day, to learn more about your course, facilities, tour our accommodation and meet students and staff
- **Accommodation tours:** get a feel for our accommodation by booking a tour [www.ncl.ac.uk/accommodation/new-students/tours](http://www.ncl.ac.uk/accommodation/new-students/tours)
- **Campus tours:** take a student-led walking tour and see our libraries, Students' Union and sports facilities
- **Self-guided tour:** our campus is open to the public, so grab a map and enjoy exploring!

If you're visiting us from abroad, our International Recruitment Team is very happy to meet you if you're unable to attend these opportunities.  
[www.ncl.ac.uk/international/contact-us](http://www.ncl.ac.uk/international/contact-us)



Our campus is within walking distance of all of Newcastle's attractions

- |  |  |
|--|--|
| 1 King's Gate student services building                    | 6 Eldon Square Shopping Centre                             |
| 2 Old Quadrangle   | 7 St James' Park football stadium                          |
| 3 Students' Union  | 8 Newcastle University Business School and Science Central |
| 4 Haymarket Metro station                                  | 9 Quayside cafés, bars, bridges and restaurants            |
| 5 Northumberland Street (Newcastle's main shopping street) |  |

## Getting to Newcastle

**By car:** we're easily accessible by road via the A1 (from the north and south) and the A69 (from the west). Our postcode is NE1 7RU if you're using a sat nav. While we are unable to offer parking on campus, there are many city-centre car parks within walking distance of campus, or you may find it easier to use the Metro to park-and-ride (see below).

**By Metro:** the Metro rail system serves Newcastle, Gateshead, Sunderland and North and South Tyneside. Haymarket station is right next to campus, so if you're travelling by car, you can park at an outlying Metro station and park-and-ride. You can use the Metro to get to Haymarket from Newcastle's Central Railway Station and Newcastle International Airport.

**By plane:** you can catch the Metro from Newcastle International Airport to Haymarket Metro station opposite campus, which takes 25 minutes. Alternatively, taxis from the airport take around 15 minutes.

**By train:** Newcastle is on the East Coast Main Line with direct services to major UK cities. The Central Railway Station is only 20 minutes' walk from campus or two stops on the Metro.

- York: 1 hour
- Leeds: 1 hour 30 minutes
- Edinburgh: 1 hour 30 minutes
- Manchester: 2 hours 30 minutes
- Birmingham: 2 hours 55 minutes
- London: 3 hours

**By coach:** Newcastle Coach Station is 15 minutes' walk from campus and close to the railway station, where you can catch a Metro to Haymarket.

- York: 2 hours 20 minutes
- Leeds: 2 hours 30 minutes
- Edinburgh: 2 hours 55 minutes
- Manchester: 3 hours 35 minutes
- London: 6 hours 35 minutes

## If you can't visit us

- **Visit virtually:** explore campus using our virtual tours and videos, or search 'Newcastle University' in Google Maps to see inside our buildings
- **UCAS HE fairs:** we attend UCAS fairs around the country between March and July, so if you have any questions, pop along and meet us at a fair near you
- **International recruitment events:** we regularly travel overseas to meet students. Check where we'll be next at [www.ncl.ac.uk/international/meet-us](http://www.ncl.ac.uk/international/meet-us)





# Support for you

Our high satisfaction score in the *Times Higher Education* Student Experience Survey is testament to the excellent professional support you can expect at Newcastle. This ensures that you can reach your full potential while studying with us.

## Settling in

Starting university is an exciting time, full of new-found independence, and we want you to feel at home as soon as possible. Here's a few ways we help:

- **Social media:** follow us on social media and start making friends and learning about student life before you arrive. Once you receive an offer from us, you'll be invited to join our Facebook group for offer holders
- **Freshers' Fair:** run by the Students' Union in the first week of term, this is a great way to meet other new starters. Sign up for societies, social events and get to know our city
- **Induction events:** academic school induction events help you get to know staff and fellow students
- **International Welcome Week:** helps international students settle in and make friends

## Advice and guidance

At the heart of campus, you'll find King's Gate, our dedicated student services building. Here, under one roof, we have helpful advisers covering everything you might need to know about Uni life. So whether you need advice on accommodation, have a question related to a disability or illness, or are an international student with a visa or immigration query, our friendly staff can help.

We also provide advice on student finance issues and additional financial support may be available to students who need it while they are studying here.

There's also a Student Advice Centre in the Students' Union, which offers free confidential advice on a wide range of topics, including housing, academic, finance, personal, employment and consumer issues.

## Academic support

You'll be supported by a personal tutor who can provide practical guidance on a range of academic issues to help you excel in your studies. You'll also have a peer mentor – a trained student volunteer from your course – to help you settle in.

## Disability support

We provide a friendly and accessible service for students with additional needs relating to a disability, long-term medical or mental health condition, or a specific learning difficulty such as dyslexia/dyspraxia, AD(H)D or an Autistic Spectrum Disorder. Our Student Wellbeing team can answer any queries you have about the support on offer while studying at Newcastle. We encourage you to make your needs known on your UCAS application to help us plan your support in advance.

Our team can also work with you to create a tailored package of support and help you apply for Disabled Students' Allowances (eligible UK students). We welcome and support students with a range of additional needs, so you can access and enjoy University life to the full.

## Emotional support

We provide help to support your academic success. Our professional therapists provide brief counselling, group work and signposting. The service is available throughout the year and is without charge. Also, the Students' Union runs a confidential helpline, Nightline. This student-run listening service is available every night through term-time.

## World faiths

Chaplains of diverse faiths are based on campus and can support students of any faith or none. There are also a number of student societies representing many of the major religions. [www.ncl.ac.uk/students/chaplaincy](http://www.ncl.ac.uk/students/chaplaincy)

6TH IN  
THE UK FOR  
STUDENT  
SUPPORT

*Times Higher Education Student  
Experience Survey 2017*





## GUARANTEE OF ACCOMMODATION



# Accommodation

You're guaranteed a room in University accommodation in your first year. Our accommodation is the perfect environment to settle in to University as soon as you arrive and our residences are close to both our campus and the city.

## What we offer

University accommodation isn't just a place to stay, it provides the opportunity to meet and live with students from different courses and make friends you might not otherwise meet.

You'll be allocated a study bedroom to yourself, in a block, hall or flat shared with other students. Your room will have everything you need for private study and a good night's sleep. Depending on your accommodation, you could have your own *en suite* bathroom, or share a bathroom with your flatmates.

All flats have kitchens, where you will be able to practise your cooking skills with your newfound friends. Many sites also have lounges and laundry facilities, some have games rooms and/or a bar. All of our accommodation meets the quality standards set in the Student Accommodation Code or the Accreditation Network UK.

## Types of accommodation

We have 4,700 rooms over 11 different sites. There's a choice of accommodation to suit all budgets and lifestyles:

- ▶ catered or self-catered
- ▶ *en suite* or shared bathroom
- ▶ modern deluxe blocks or more traditional sites
- ▶ specialist facilities including accessible and family accommodation

## Visit our accommodation

You can tour a number of residences on our annual Open Days (see page 26) or during an accommodation tour where a resident will show you their room and facilities. For details see [www.ncl.ac.uk/accommodation/new-students/tours](http://www.ncl.ac.uk/accommodation/new-students/tours)

## What it costs

Costs vary depending on what type of accommodation you choose. In 2017–18, our accommodation costs ranged from £84.14 per week for a self-catered room with shared bathroom, to £167.09 for a catered room with *en suite* facilities. Prices include insurance, internet and utility bills, and you can spread the cost by paying in instalments. Prices for 2019 entry should be available on our website from March 2019.

## How to apply

As soon as you have received an offer from the University, you can apply online. The deadline for applications is 30 June 2019. You'll be asked to list your accommodation preferences, and we will work hard to allocate you a room in the residence of your choice. Once your accommodation is allocated, you can start getting to know who you'll be living with through the Facebook page for our accommodation.

## Accommodation guarantee

We guarantee a room to all first-year undergraduates joining us in 2019, providing you:

- ▶ are coming alone to the University for the full academic year
- ▶ accept an offer at the University as your first choice by 30 June 2019
- ▶ apply online for accommodation by 30 June 2019

For international fee status students, this guarantee applies for the full duration of your course. For more information, see [www.ncl.ac.uk/accommodation/new-students/guarantee/#covered](http://www.ncl.ac.uk/accommodation/new-students/guarantee/#covered)



# Students' Union

From Freshers' Week to your graduation, from a morning coffee to a chat with the Student Advice Centre, Newcastle University Students' Union caters for all of your needs.

## Your Union

The Students' Union (NUSU) is run by students, for students, with six elected Sabbatical Officers representing your interests.

The hub of social life on campus, NUSU offers 65 sports clubs, over 200 societies and endless opportunities to make friends and experience new activities. This all takes place under one roof, in our stunning Students' Union building. It is the centre of student life and right at the heart of campus.

So, whether you want to try a new sport, join a society, volunteer, watch the latest big name perform or just grab a meal deal from the SU shop, the Students' Union has it all.

## We offer:

- ▶ Multi-Guardian-award-winning student newspaper (*The Courier*)
- ▶ Freshers' Week events and activities
- ▶ Over 200 societies and 65 sports clubs
- ▶ Volunteering with Go Volunteer and Raising and Giving (RAG) Week
- ▶ 'Give it a Go' activity programme
- ▶ Campus leagues and inclusive sport
- ▶ Subway sandwiches, Starbucks and Domino's Pizza on site
- ▶ Student bar Luther's and our café providing food and drinks
- ▶ Students' Union shop
- ▶ 1,500-capacity gig space
- ▶ Weekly club nights in Venue
- ▶ Quiz nights
- ▶ Student Advice Centre and confidential helpline (Nightline)
- ▶ Quiet and social study spaces in the Hub and NUSU Central, available 24 hours a day



Our Students' Union

**4TH IN  
THE UK FOR  
OUR STUDENTS'  
UNION**

International Student Barometer  
Autumn 2016 (out of 42  
participating institutions)



[f/NewcastleSU](https://www.facebook.com/NewcastleSU) [@NewcastleSU](https://twitter.com/NewcastleSU) [newcastlesu](https://www.instagram.com/newcastlesu) [@newcastlesu](https://www.instagram.com/newcastlesu)



# Sport

We are 10th in the UK for sport\*. Everyone has the opportunity to enjoy sport here, whatever their level. From taster sessions and exercise classes, to team sports and representing the University regionally and nationally, you're sure to find something to suit you.

## Facilities

Our Sports Centre has a wide range of facilities for sport and physical activity. It's open from 7am to 10pm on weekdays, so you'll have plenty of time to make the most of them. You can explore the range online with Google Maps.

Facilities include:

- ▶ 125-station fitness suite and dance studio
- ▶ strength and conditioning room
- ▶ sports hall and multipurpose areas
- ▶ water sports centre on the River Tyne
- ▶ 28 outdoor pitches including two artificial turf pitches
- ▶ rifle/archery range

We're also expanding our sports facilities, with our new Sports Centre due to be completed for September 2019. As part of a major £30m investment programme, our enhanced provision will include an additional eight-court sports hall, squash courts and exercise studios as well as exercise physiology and biomechanics laboratories.

## Sport for all

We encourage all students, whatever their ability, to get involved in sport. We offer you an extensive range of recreational sports through our campus sport programmes. These enable you to play sport regularly in a friendly, competitive environment. There is also a varied range of exercise classes for you to try throughout the year.

The 'Give it a Go' taster programme provides opportunities to try out new sports in a fun and friendly environment where no commitment or experience are necessary.

\*British Universities & Colleges Sport league 2016–17 rankings (out of more than 150 participating institutions)

We also have an inclusive sports programme that delivers para-sports. It offers weekly sports sessions, taster sessions and peer support from volunteers, to make sure everyone can enjoy sport at Newcastle.

## Team Newcastle (BUCS league)

If you'd like to represent the University in a sport, then Team Newcastle is for you. Team Newcastle clubs represent Newcastle University in the British Universities & Colleges Sport (BUCS) programme competing against other university teams throughout the UK.

We have over 65 clubs, from football, rugby and hockey to aikido, parachuting and snowboarding. Many clubs are supported by professional coaches.

## Sports scholarships and support

If you're playing sport at a high level – perhaps representing your county or country in national competitions – contact us to find out if you're eligible to join our prestigious scholarship programme.

We offer sports scholarships and specialist support packages designed to help promising students achieve great things in the sporting arena. Support comprises financial awards, professional coaching, sports science services and a sports tutor to help you achieve your full potential. For more information, visit [www.ncl.ac.uk/nclsport/performance/scholarships](http://www.ncl.ac.uk/nclsport/performance/scholarships)



**10TH  
IN THE UK  
FOR SPORT**

British Universities & Colleges  
Sport league 2016–17 rankings  
(out of more than 150  
participating institutions)



Artist's impression of our new sports facilities





The Hatton art gallery, based on campus

# Arts and culture

Enjoy thought-provoking theatre, hear influential public speakers, listen to professional musicians and even come face-to-face with a T-Rex... all on our campus.

## Galleries and museums

On campus you'll find the Hatton, a free art gallery recently refurbished as part of a £3.8m development, which hosts a busy programme of historical and contemporary art exhibitions. We're also home to the Great North Museum: Hancock, which is one of the region's most popular attractions. The museum houses an impressive collection of 3,500 natural history, archaeological and ethnographic artefacts, and highlights include a replica T-Rex skeleton, ancient Egyptian mummies, a planetarium and a gallery devoted to Hadrian's Wall World Heritage Site.

## Lectures and literature

Make the most of our free public lectures series, Insights, which welcomes internationally respected speakers to campus each term, such as Laura Bates (founder of the Everyday Sexism Project) and Paul Mason (former economics editor at Channel 4 News).

Campus-based Newcastle Centre for the Literary Arts runs a year-round programme of events, readings and courses, featuring world-class writers such as Jeannette Winterson, Ian McEwan and Kazuo Ishiguro.

## Events

Each year we host a range of different public events, festivals and markets. As one of the hosts of the Great Exhibition of the North 2018, we are proud to celebrate innovation and creativity across northern England.

In 2017 Freedom City celebrated the 50th anniversary of Dr Martin Luther King Jr. receiving his honorary degree from Newcastle University.

## Music

Our free lunchtime concert series, LIVE in the King's Hall, offers performances by professional musicians every Thursday throughout term-time, followed by an hour of music by students from our International Centre for Music Studies. The Newcastle University Symphony Orchestra performs twice a year and you can also attend recitals from final-year Music students.

The Students' Union hosts gigs from top UK acts, which have included Kid Ink, George Ezra and Twin Atlantic. There are also regular lunchtime acoustic sets through our Coffee House Sessions. You can join a student music ensemble such as our jazz band, student chamber choir or Rock society, or even start one of your own!

## Theatre

Northern Stage, one of the city's most popular theatres, is on campus. Home to the North East's largest producing theatre company, it offers a range of classic and cutting-edge performances.

If you prefer to take part, you can join student drama societies including Newcastle University Theatre Society (NUTS) and the Gilbert and Sullivan Society, both of which put on performances throughout the year.



# Careers

We encourage you to be creative, innovative and entrepreneurial. Our outstanding reputation as one of the top producers of in-demand graduates means studying with us is a sound investment in your future.

## Your excellent career prospects

95% of our 2015–16 UK and EU graduates entered employment or further study within six months of graduating\*. We also rank in the top 200 for graduate employability\*\*.

## Strong employer links

We're consistently in the top 20 most-targeted universities by *The Times* Top 100 Graduate Employers\*\*\*. This means the companies students most want to work for rate us as one of the best universities to recruit from. Companies like Jaguar Land Rover, Accenture, PwC and IBM come looking for you! More than 300 employers visit our campus each year to deliver presentations, hold interviews and attend recruitment fairs to attract our talented students.

## Start your own business

Each year, we support our innovative and entrepreneurial students to develop and launch their own businesses. If you've got the idea, we've got the resources to help you.

We provide a range of services to promote entrepreneurship. You'll be supported by a dedicated team of business advisers, entrepreneurs, professional partners and a programme of workshops.

Our outstanding guidance has helped hundreds of students launch their own businesses, including Oh My Glow, Jam Jar Cinema and Optimalpath Consulting Ltd.

Stu Brew, Europe's first student-run sustainable microbrewery, has won the QS Reimagine Education Overall Enterprise award 2018. The award recognises innovative initiatives aimed at advances in learning technology and approaches to employability.

Our ongoing support continues long after you graduate, with help available for up to three years.

\*Destinations of Leavers from Higher Education survey 2015–16

\*\*Top 200 for graduate employability out of 600 analysed universities. QS Graduate Employability Rankings 2018

\*\*\*Top 20 'most targeted' university by the UK's leading employers for the last five years. The Graduate Market, report from High Fliers Research 2016–17



**95% OF OUR GRADUATES IN EMPLOYMENT OR STUDY AFTER 6 MONTHS**

Destinations of Leavers from Higher Education survey 2015–16

## START UP support for entrepreneurs



Our business start-up experts START UP provide a support programme for student entrepreneurs. Rachel (Fine Art MFA) and Dominic (Classics BA Honours) met while being mentored at START UP and launched an innovative virtual reality business, Chronicles VR.

Dominic said: 'The support from START UP has been invaluable. The entrepreneurship experts helped start our collaboration by merging our ideas into a solid business plan.'

'START UP also provided funding to get our initial 3D sets, which led to first proof of concept.'

Rachel and Dominic's business, Chronicles VR, brings virtual reality into museums by allowing people to explore historic artefacts in their original context.

START UP Business Adviser, Jackie, said: 'Rachel and Dominic have shown true entrepreneurial vision in bringing their business venture to this exciting point. They were open to exploring a new and exciting partnership which allowed a real collaboration and meeting of minds, talents and skills.'



# Our Careers Service

Our Careers Service is one of the best, largest and most innovative in the UK.

## How can we help you?

We support and prepare you to shape the society that you live in, whichever profession you choose to enter. The wide range of ways in which we develop the employability of our students was specially commended by the UK Quality Assurance Agency (QAA). We help you to develop the strategies to be successful in an increasingly challenging jobs market.

We support you to think about your future early in your studies through:

- ▶ one-to-one sessions with a professional careers adviser and drop-in CV checks
- ▶ skills development workshops covering topics such as how to succeed at interviews
- ▶ information and workshops tailored to your degree programme
- ▶ an online networking tool so you can access careers-related knowledge from past graduates

We also give you opportunities to work around your studies to boost your CV and your confidence.

## Benefit from:

- ▶ optional work placement year, open to all students (see page 14)
- ▶ ncl+ initiative, which brings together a range of activities you can get involved in outside of your degree
- ▶ links with regional businesses for work experience and graduate opportunities
- ▶ career development modules that boost your skills while you study
- ▶ over 3,000 vacancies, work experience and placement opportunities advertised each year
- ▶ industry-relevant practical projects and professional input
- ▶ Jobs On Campus, our on-campus recruitment agency, helping you find temporary paid work that fits around your studies
- ▶ access to our services for up to three years after graduation, so you've got our support as you start out and progress in your career

Our degrees are relevant to the workplace and tailored content gives you the professional skills employers look for in graduate recruits. Many of our degrees are also accredited by professional organisations and have professional guest lectures.

[www.ncl.ac.uk/careers](http://www.ncl.ac.uk/careers)

**BEST  
UNIVERSITY  
EMPLOYABILITY  
STRATEGY**

Winner, TARGETjobs  
Awards 2017



# What can I study?

Choose a subject from the list below. If you're not sure which subject your degree comes under, check our Degree index on pages 228–230.

Accounting and Finance.....	42	Geography.....	133
Agri-Business and Food Management.....	45	History.....	138
Agriculture.....	48	Law.....	141
Animal Science.....	52	Marine Sciences.....	143
Archaeology.....	54	Marine Technology.....	146
Architecture.....	57	Marketing.....	150
Biology and Zoology.....	60	Mathematics and Statistics.....	153
Biomedical and Biomolecular Sciences.....	64	Mechanical Engineering.....	158
Business Management.....	69	Media, Journalism and Film Practice.....	163
Chemical Engineering.....	73	Medicine.....	167
Chemistry.....	78	Modern Languages.....	172
Civil Engineering.....	82	Music.....	177
Classics and Ancient History.....	87	Nutrition and Food.....	181
Combined Honours.....	90	Pharmacy.....	184
Computer Science.....	94	Philosophy.....	187
Dentistry.....	100	Physics.....	189
Earth Science.....	105	Politics.....	192
Economics.....	107	Psychology.....	195
Education.....	111	Sociology.....	200
Electrical and Electronic Engineering.....	113	Speech and Language Sciences.....	203
Engineering Foundation Programmes.....	119	Sport and Exercise Science.....	205
English Literature, Language and Linguistics.....	120	Surveying and Mapping Science.....	207
Environmental and Rural Studies.....	126	Urban Planning.....	210
Fine Art.....	130		
		Newcastle University London.....	213

*We offer a range of undergraduate business degrees at Newcastle University London*



# Accounting and Finance

Degree	UCAS	Entrance requirements
<b>Accounting and Finance BA Honours</b>	N400	<b>A Level: AAB</b>
<b>With Placement BA Honours</b>	N401	Excluding General Studies. Minimum grade A or 7 in GCSE Mathematics and grade B or 6 in GCSE English (if not offered at a higher level). See online for additional information about GCSE (or equivalent) requirements. <b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level.
<b>Business Accounting and Finance BA Honours</b>	NN14	<b>A Level: AAB</b> Excluding General Studies. GCSE Mathematics grade A or 7 and GCSE English grade B or 6 required if not taken at A or AS Level. See online for additional information about GCSE (or equivalent) requirements. <b>International Baccalaureate: 35 points</b> With three subjects at grade 5 or above at Higher Level, preferably including Mathematics. Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level. <b>Selection process:</b> Shortlisted applicants will be invited to interview. Find out more at <a href="http://www.ncl.ac.uk/flyingstart/apply">www.ncl.ac.uk/flyingstart/apply</a>

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Accounting and Finance at Newcastle University London; Business Management; Economics; Economics and Finance; Marketing; Mathematics and Accounting; Mathematics with Finance

## Your Future Career

Our degrees provide you with the knowledge to pursue chartered accountant status. Although many of our graduates become accountants, you'll also be equipped for a range of careers in finance, financial services, and business. Our graduates have worked for companies including: EY; Deloitte; PwC; KPMG; Baker Tilly; National Audit Office; Grant Thornton UK LLP; Mazars LLP; and Capita Asset Services.

Our 2016 Accounting and Finance BA Honours graduates are working in roles such as: accounting assistant; analyst; associate auditor; client account manager; and tax associate.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Accounting and Finance BA Honours leavers, within six months of graduating)



## Why Study With Us?

Our degrees balance academic theory with real-life problem-solving and technical skills to give you a head start in your career.

### League table ranking:

- ▶ top 20 in the UK – *The Complete University Guide 2018*
- ▶ top 200 – Business and Economics category – *Times Higher Education World University Rankings by Subject 2018*
- ▶ 91% overall student satisfaction score – National Student Survey 2017 (Accounting category)

✓ **Professional accreditation\***: if you want to become a chartered accountant it is important to study a degree that is professionally accredited. This shows that your degree meets the standards set by the industry and often means that you do not need to take certain additional exams after you graduate (this is called an 'exemption'). Our degrees are accredited and offer a number of exemptions, putting you on the fast track to your professional career.

Our Accounting and Finance degree offers exemptions for some of the professional examinations of the:

- ▶ Association of Chartered Certified Accountants (ACCA)
- ▶ Association of International Accountants (AIA)
- ▶ Chartered Institute of Management Accountants (CIMA)
- ▶ Institute of Chartered Accountants in England and Wales (ICAEW)

We are an IMC Advantage Partner with the Chartered Financial Analysts' Society UK, which means our Accounting and Finance degree is highly relevant for those who wish to become a registered investment adviser. We're also an approved Pathways to Associate Member of Certified Practising Accountants Australia.

Our four-year Business Accounting and Finance degree was designed with, and is professionally accredited by, ICAEW. Successful graduates of this degree will have completed 12 of the 15 papers of the ICAEW Associate Chartered Accountant (ACA) qualification.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course:

[www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). You'll be supported

by our dedicated Placement Officer, who works closely with the University's Careers Service to help you to make the most of your skills and to find the best opportunities. Find out more on pages 14–15.

✈️ **Study abroad:** You have the opportunity to take part in a study abroad exchange as part of your degree – look for the ✈️ symbol. See page 16 for more information.

**Work for PwC as part of your degree:** choose our Business Accounting and Finance BA Honours degree and benefit from over 200 days of paid work experience on real projects for clients as part of PwC's Assurance team.

**Gain insight into industry:** enjoy close interaction with chartered accountants on the teaching team and regular guest lecturers from leading accountancy firms.

**Develop expertise and contacts to excel in your future career:** we host a Career Development Week every year so you can meet potential employers and explore possible careers.

**DTUS Sponsorship:** our Accounting and Finance BA Honours degree is approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)

## Accounting and Finance

BA Honours | N400 | 3 years | ✓ ✈️

With Placement  
BA Honours | N401 | 4 years | ✓ 📅

Graduate with real-world, problem-solving skills and an understanding of the academic theory that underpins professional practice. This professionally accredited degree provides a firm foundation in accounting and finance. You will focus on three core disciplines that are essential for a successful career in any area of business or finance: financial accounting, management accounting and finance.

**Stage 1:** You will be introduced to the subject through compulsory modules covering: financial accounting; management accounting and finance; and professional skills. We balance this with a range of other topics including: economics; mathematics; statistics; management; and an introduction to English law.

**Stage 2:** You will develop your skills in finance, financial accounting and management accounting.

▶ **Continued overleaf.**



You complete a group project where you analyse a publicly listed company and produce a written report and presentation. You can also choose an optional module such as auditing, strategic business analysis or career development.

**Work placement (N401):** Spend the year between Stages 2 and 3 on a 12-month placement working in a UK or overseas business. During your time on placement you will be supported by an academic member of staff and the School's dedicated Placement Officer. Our current placement students are in roles such as finance assistant, assurance intern, and internal auditor, working on the following projects:

- ▶ providing audit services to a number of external clients at PwC and Atom Bank
- ▶ invoicing and budgeting at L'Oréal
- ▶ re-engineering of key processes to support efficiencies at P&G
- ▶ budget management, forecasting and analysing sales performance at TJX Europe

**Stage 3:** You will undertake compulsory modules in financial accounting, management accounting and international financial management. Optional modules make up half of your time and you have a wide range of modules to choose from including: taxation; behavioural finance; derivative securities; and accounting development and change.

## Business Accounting and Finance

BA Honours | NN14 | 4 years | 

This degree, also known as the 'Flying Start degree', offers an innovative route into chartered accountancy – you could be fully qualified just over a year after graduation. Delivered in collaboration with professional services firm PwC and ICAEW, you will combine the study of business accounting and finance with guaranteed paid work placements at PwC.

This degree can accelerate your progress to qualification as an ICAEW Chartered Accountant. The most established degree of its kind, its unique structure enables you to put classroom theory into commercial practice, and then relate your practical experience back to your studies.

You'll benefit from:

- ▶ custom-designed modules that satisfy the requirements of ICAEW's Certificate and Professional Level examinations
- ▶ attractive salary and paid holiday provided during your placement
- ▶ paid work placements in Stages 2, 3 and 4 with PwC, that count towards ICAEW work experience requirements for chartered accountant status

- ▶ over 200 days of paid work experience on real projects for real clients as part of PwC's Assurance team

**Work placements:** This degree integrates over 200 days of qualifying technical work experience with PwC, divided across the second, third and fourth years. There are opportunities across the UK, and PwC will provide practical help and financial relocation assistance should you need it.

Your three work placements add up to approximately half of the approved technical work experience required by ICAEW in order to qualify as a chartered accountant. By joining PwC's Assurance team, you will work on real projects for real clients, experience a range of clients, develop new skills and gain a broad knowledge of business issues.

**Stage 1:** You will be introduced to the subject through a mix of core and bespoke topics covering: financial accounting; management accounting and finance; economics; mathematics; and taxation. We balance this with a range of business disciplines, including professional skills and an introduction to English law.

**Stages 2 and 3:** The bespoke teaching and training continues with a number of ICAEW-accredited modules, including topics such as financial accounting, auditing, finance and taxation. We use case studies and classroom-style teaching to bring the material to life.

Your PwC placements in Stages 2 and 3 run from January to Easter. Prior to each placement, in December, you receive a bespoke PwC training programme. After each placement, you return to the University for the summer term, for a placement debrief, final tuition and assessment before your summer break.

**Stage 4:** The final year further enhances your professional skills by developing your ability to apply the knowledge you have learned, in-depth, to realistic business situations. For example, we use case studies to explore how organisations cope with new developments, and dissertations to examine how research relates to practice.

This is your opportunity to explore subjects as diverse as strategy, banking and insurance, or even work/life balance theories. Your third PwC placement runs from mid-November to Easter, where you gain further auditing experience and are likely to be supervising others.



# Agri-Business and Food Management

Degree	UCAS	Entrance requirements
<b>Agri-Business Management BSc Honours</b>	N280	<b>A Level: AAB–ABB</b> Including General Studies. GCSE Mathematics (minimum grade B or 6) required if not taken at A or AS Level.  <b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
<b>Food Business Management and Marketing BSc Honours</b>	ND61	<b>A Level: AAB–ABB</b> Excluding General Studies and Critical Thinking. GCSE Mathematics (minimum grade B or 6) required if not taken at A or AS Level.  <b>International Baccalaureate: 32–35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a> <b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222–223.		

**YOU MAY ALSO BE INTERESTED IN:** Agriculture; Business Management; Economics; Environmental and Rural Studies; Marketing

## Your Future Career

Our graduates work in land-based, agri-food business, food and retail sectors, for companies including: P&G; Unilever; Accenture; Marks & Spencer; Sainsbury's; Morrison; and Tesco. Many of these companies specifically target Newcastle University during recruitment campaigns.

Other graduates are working in finance, investment banking, marketing and communications, human resources and management, in businesses such as consultancy, hospitality and logistics.

Our 2016 Agri-Business Management BSc Honours graduates are working in roles such as: agricultural business consultant; arable technical and marketing assistant; area manager; food and farming graduate; and marketing co-ordinator.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Agri-Business Management BSc Honours leavers, within six months of graduating)







## Why Study With Us?

Our degrees span a range of disciplines, from agriculture and nutrition, to marketing and law.

### League table ranking:

- 2nd in the UK – *The Complete University Guide 2018* (Agriculture and Forestry category)
- 5th in the UK – *the Guardian University Guide 2018* (Agriculture, Forestry and Food category)

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15. We have a network of contacts in companies such as Sainsbury's, Tesco, Aldi, Marks & Spencer, United Biscuits, Masterfoods, Waitrose, IBM, Unilever, Farmcare, L'Oréal, John Deere and HSBC, as well as with smaller companies.

 **Study abroad:** you can take part in a study abroad exchange between Stages 2 and 3 at one of our partner universities in Europe. See page 16 for more information. We also have an exchange programme with Cornell University, an Ivy League University, located in Ithaca, New York State.

**Choose from a variety of topics:** explore diverse topics in agri-business and food management, agriculture, economics, law, marketing, nutrition and psychology. Understand one of the world's largest and most vital industries, responsible for the delivery of food and fibre to international markets.

**Tailor your degree to your career plans:** develop the knowledge you need for a career in the agri-food chain, such as business management, food production, logistics and retail.

**Enjoy integrated careers support:** earn academic credit for work-related learning or entrepreneurial skill development through optional career development modules and get help to write an outstanding CV.

**Gain an insight into the business world:** through guest speakers and study visits to organisations representing the food supply chain, such as JR Holland, Tynegrain Ltd, Asda and Blagdon Estate.

**Enjoy practical experience in our fantastic facilities:** including the University's two commercial farms, product development facilities and our links with Fera Science Ltd (formerly the Food and Environment Research Agency).

## Agri-Business Management

BSc Honours | N280 | 3 years |  

This is an applied degree that covers the fundamental principles of management, economics, marketing and finance in the context of the agri-food chain. We make the most of our status as one of the foremost UK universities for agriculture and food studies, with a range of topics relating to the operation of agri-food businesses supported by industry visits, guest speakers and case studies.

**Stage 1:** Core modules cover introductions to agri-business management and quantitative techniques. You will study topics relating to the agri-business sector, such as the principles of food marketing, agri-business management, accounting and economics.

**Stage 2:** You continue to develop business knowledge in areas such as agricultural economics, marketing of agricultural products and business law. You also take part in a competitive business simulation, which develops your ability to work as part of a team and take integrated managerial decisions in marketing, production planning, logistics, human resource management and finance. A wide range of optional modules are available, covering topics such as: farm management; managerial economics; agricultural marketing; livestock production; and UK arable crops. You may also choose modules from elsewhere in the University.

You have the opportunity to apply for a work placement between Stages 2 and 3 – see left.

**Stage 3:** You continue to develop your professional skills with core modules in food markets and marketing, food policy, and advanced agri-business. You can tailor the degree to your career plans as up to half of your credits can be selected from optional modules such as farm management and food production systems or, if you are more interested in the management side of the agri-food chain, there is a choice of modules relevant to business management and consumer demand.

An independent research project will account for a quarter of your time in your final year. Recent projects include: the implications of agri-tourism for farm diversification; potential impacts of a sugar tax on consumption of soft drinks; consumer willingness to pay for pesticide-free broccoli; and feasibility studies for renewable energy projects.

## Food Business Management and Marketing

BSc Honours | ND61 | 3 years |  

If you're interested in pursuing a managerial career in the food processing, retail and food service sector, this degree is for you. It covers a range of knowledge and competencies spanning economics, business studies and natural sciences.

You'll learn how to tackle the key challenges facing the food value chain, such as the need to reconcile a growth of food production with preserving the natural environment and an equitable society. Our multidisciplinary approach covers marketing, strategy, economics, ethical studies, food science and technology, nutrition, and plant and animal science.

Your main focus will be on understanding how firms co-ordinate their actions in a dynamic and evolving supply chain while best serving and accessing consumers' preferences. There is also a strong emphasis on applying principles to real world problems faced by an increasingly sustainable and global food businesses sector. You'll develop a range of practical skills, from conceptualising business problems and influencing managerial decisions, to evaluating professional and ethical standards and analysing data.

**Stage 1:** You are introduced to a number of key topics to develop your understanding of the core principles of successful agri-business management. Modules include: non-specialist accounting and finance; marketing and consumer behaviour; introductory business economics; investigating agri-food systems from farm to fork; agri-food business management; and macroeconomics.

**Stage 2:** We focus on the applied aspects of the degree, while introducing you to research methods and an increased range of business environments. Your learning is enhanced through business simulations and classes by guest speakers with managerial positions in industry, providing the opportunity for you to learn by doing. You also manage a virtual company in a competitive environment.

You take core modules including: interpreting company accounts; marketing strategy; concepts and applications; and new food product development. You can also choose from a range of optional modules, such as: food business economics; agricultural economics; agricultural markets; human resource management; business law; social psychology; and food science and technology.

You have the opportunity to apply for a work placement between Stages 2 and 3 – see opposite.

**Stage 3:** Teaching in your final year covers advanced topics in management, data analytics, business economics and food policy. You undertake a research project, which provides the opportunity to apply and test your knowledge to an academic problem, a case study or practical business problem. You also develop advanced knowledge and understanding of how to research, profile and serve the needs of the food consumer. You can customise your degree through a broad range of options as well as choosing your dissertation topic. You cover topics including: food policy and evaluation; marketing metrics; economics of food and industry analysis; marketing and public policy; communication and behaviour change.

*'I most enjoy seeing how lecture material relates to real world scenarios, such as economics and marketing. Making these links makes the information more practical and you really feel like every lecture is preparing you for the real business world.'*

Caitlyn, Agri-Business Management BSc Honours



# Agriculture

Degree	UCAS	Entrance requirements
<b>Agriculture BSc Honours</b>	D400	<b>A Level: ABB–BBB</b>
<b>Agriculture with Agronomy BSc Honours</b>	D444	Excluding General Studies. A science A Level is preferred. For Biology, Chemistry and Physics A Levels, a pass in the practical element is required. GCSE Biology and Chemistry (or Dual Award Science) at grade C or 4 required if not offered at A or AS Level.
<b>Agriculture with Animal Production Science BSc Honours</b>	D422	<b>International Baccalaureate: 30–32 points</b>
<b>Agriculture with Farm Business Management BSc Honours</b>	D402	With Chemistry and/or Biology at Higher Level. Chemistry and/or Biology should be offered at Standard Level if not offered at Higher Level.
<b>Applied Plant Science BSc Honours</b>	C211	<b>A Level: AAB–ABB</b> Including Biology and normally another science-related subject from: Chemistry, Mathematics, Physics, Geography, or Psychology. Chemistry is preferred at A or AS Level but not essential. In practical elements of each science subject, we require a pass. GCSE Mathematics at grade B or 6 required if not offered at A or AS Level. <b>International Baccalaureate: 32–35 points</b> Including Higher Level Biology at grade 6 or above. Chemistry is preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 5 if not offered at Higher Level.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Stage 2 Direct Entry:** direct entry on to Stage 2 of our agriculture degrees may be offered to students who have completed a Newcastle University-accredited foundation programme with Northumberland College – see [www.northumberland.ac.uk](http://www.northumberland.ac.uk)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Agri-Business and Food Management; Animal Science; Biology and Zoology; Countryside Management; Environmental and Rural Studies; Nutrition and Food

## Your Future Career

Our graduates work in areas that include: practical farm management; service and supply industries; management, agronomy and livestock production; agricultural consultancy; land agency; accountancy; surveying; marketing; journalism; retail; teaching; plant breeding; horticultural science; environmental and soil science; and plant science research in universities and industry.

Recent graduates are employed in senior management positions with companies such as Velcourt, Sentry Farming, Bidwells, Andersons, Strutt & Parker, Agrovista, GrowHow and Syngenta. Many of these companies specifically target Newcastle University during recruitment campaigns.






## Why Study With Us?

Consider challenges facing the agricultural sector, from Common Agricultural Policy reform to climate change and feeding an increasing world population.

### League table ranking:

- ▶ 2nd in the UK – *The Complete University Guide 2018* (Agriculture and Forestry category)
- ▶ 5th in the UK – the *Guardian University Guide 2018* (Agriculture, Forestry and Food category)
- ▶ 7th in the UK – *The Times/Sunday Times Good University Guide 2018* (Agriculture and Forestry category)
- ▶ 92nd – Life Sciences category – *Times Higher Education World University Rankings by Subject 2018*
- ▶ top 150 – Agriculture and Forestry category – QS World University Rankings by Subject 2017

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

 **Study abroad:** You have the opportunity to take part in a study abroad exchange as part of your degree – look for the  symbol. See page 16 for more information.

**Flexible degree structure:** we offer three specialist agriculture degrees – Agronomy, Animal Production Science, and Farm Business Management – as well as a broad-ranging Agriculture degree that allows you to select modules from across these three specialisms.

Regardless of which degree you apply for, all students study the same modules for the first two years (Stages 1 and 2). This ensures you gain an excellent foundation in agriculture and also gives you time to explore our broad curriculum to find out exactly where your interests lie.

Transfer between our agriculture degrees is possible until the end of Stage 2, if you find that your interests change during this time.

*'I've become friendly with everyone in my classes very quickly. Also, being combined with other courses, for example Agri-Business Management, means you get to know a wider range of people, not just Agriculture students.'*

Ellie, Agriculture BSc Honours

Our Applied Plant Science degree has overlap with the agriculture degrees but also includes a focus on biological science. Aimed at students with an interest in the commercial application of plant science in agronomy and plant breeding, you'll develop skills applicable to the development of crop technology, novel plant protection strategies and breeding new varieties of crop.

**Study a broad curriculum:** choose modules from plant biology, soil science, animal science, agri-business, nutrition, management, accounting and law.

**Experience the industry first hand:** our strong links with the farming community provide opportunities to observe different crop and livestock production systems throughout the country.

**Enjoy study visits to farms:** including two University farms and other commercial farms with diversified enterprises, processors and packers, as well as visits to agricultural research institutes.

**Study at the cutting edge:** learn from expert staff engaged in researching real-world issues, such as renewable energy.

**Learn professional software:** used for accounting, budgeting, crop and livestock management, and statistical analysis.

**Share careers advice with peers:** we encourage alumni to visit our School to share their experiences after graduation, and to discuss career opportunities. This ensures that you're up-to-date with the latest career routes in the sector.





## Agriculture

BSc Honours | D400 | 3 years |  

This degree covers our broadest range of topics including aspects from across our full range of agriculture specialisms.

**Stage 1:** You study the fundamental scientific and quantitative aspects of the subject, covering topics including plant biology, animal science and agri-business economics. We also introduce you to laboratory work and IT applications for applying statistical techniques to agricultural data. A series of visits to the University farms provides first-hand insight into the practical aspects of agriculture.

**Stage 2:** You apply your knowledge to both animal and crop husbandry and to farm management, covering topics such as animal breeding, arable crop production and agricultural marketing.

Visits to University and other farms continue, reinforcing your learning with practical experience. You have the opportunity to take a crop pests field course in the summer, focusing on the major insect, fungal and weed pests that affect crop production. Here you will engage with leading industry experts in the field.

**Stage 3:** You choose topics from across our Stage 3 specialisms in Agronomy, Animal Production Science, and Farm Business Management, according to your particular interests. This allows you to maintain a broad view of agriculture and continue to keep your options open. You complete a dissertation in an area of agriculture that is of particular interest to you, with the freedom to select a topic across any of our specialist areas.

## Agriculture with Agronomy

BSc Honours | D444 | 3 years |  

Agronomy is the science of crop production and soil management, which has led to major improvements in yield and quality of food, fibre and energy crops over the last 30 years. This degree considers crop production systems that meet the economic objectives of producers, demands from society and consumers, and changing climatic conditions.

**Stages 1 and 2:** You study a common curriculum for the first two years, developing a firm foundation in the subject and discovering where your interests lie (see Agriculture BSc Honours, left).

**Stage 3:** Core topics cover the production of cereals, oilseeds, pulses (peas and beans), cash roots (potatoes and sugar beet), field vegetables, and energy and fibre crops. You learn about the factors influencing the performance of the major arable crops – genotype, environment, nutrition, pest and disease management – both in the classroom and through visits to commercial and research organisations.

Optional modules include topics such as sustainability, estate management, biological control, and law and land use. You also write a dissertation on an agronomic topic of your choice.

## Agriculture with Animal Production Science

BSc Honours | D422 | 3 years |  

Animal production science explores animal nutrition and growth, and livestock reproduction, to maximise animal performance. It also equips you with the knowledge needed to ensure the integrity of the food we eat, through topics such as food safety, environmental impact, legislative requirements, and the effect of advances in biotechnology on the production chain.

**Stages 1 and 2:** You study a common curriculum for the first two years, developing a firm foundation in the subject and discovering where your interests lie (see Agriculture BSc Honours, left).

**Stage 3:** You study core modules that develop your knowledge in key areas of animal production science such as: animal nutrition and growth; livestock reproduction; and factors affecting the efficiency of animal feed.

You also write a dissertation on an aspect of animal production science that interests you.

You can follow your own interests through optional modules in areas such as: livestock behaviour; animal product marketing; and animal welfare.

Other options include joining our Animal Science students (see page 53) in organising and hosting our annual Animal Health conference.

## Agriculture with Farm Business Management

BSc Honours | D402 | 3 years |  

This degree focuses on the management of each element of an agricultural business: the whole estate; the farm; and individual arable, livestock and diversified enterprises. There are opportunities throughout the course to apply the techniques learned to real farm case studies by preparing whole-farm physical and financial plans, feasibility studies of diversification enterprises, and estate management projects.

**Stages 1 and 2:** You study a common curriculum for the first two years, developing a firm foundation in the subject and discovering where your interests lie (see Agriculture BSc Honours, opposite).

**Stage 3:** You explore management techniques used for decision making in agricultural businesses in the UK, as well as examining the agriculture industry as a whole. Core modules develop your skills in farm planning, budgeting and accounting, as well as in farm organisation and land law.

You also write a dissertation on a farm business management topic of your choice. Projects and case studies form a major component of management modules using real farm information to appraise farm performance and develop business plans. There are also practical workshops and demonstrations of the major software used in farm business planning and control.

## Applied Plant Science

BSc Honours | C211 | 3 years |  

As well as giving a sound background in biology, this degree focuses on how plant species interact, both physiologically and ecologically, with each other, as well as with animal species and their environment. It focuses on both fundamental and applied science subjects to understand biological functions and their link to agriculture or crop science.

**Stages 1 and 2:** Develop your understanding of basic concepts in fundamental science, for example, plant biology, cell biology, biochemistry and genetics. You study plant response to environmental stimuli and investigate genetic and biochemical pathways underlying plant function and structure. You examine the interactions of plants and crops with their environment, soil and other ecosystems. Along with laboratory skills, you conduct in-field examinations of crop pests, diseases and British flora and fauna.

**Stage 3:** You focus on the commercial value of plant production, and consider plant biology from the perspective of plant production, plant protection strategies and pests affecting plants in commercial production systems.

You will also undertake a dissertation, which involves an in-depth investigation of an aspect of plant science of your choice. Projects, fieldwork and laboratory investigation are a significant part of the degree and you'll be assessed using a range of methods, including practical demonstration, presentation of findings, examination and field-based case studies.



# Animal Science

Degree	UCAS	Entrance requirements
<b>Animal Science BSc Honours</b>	<b>C305</b>	<p><b>A Level: ABB–BBB</b> Including Biology and another science subject from: Chemistry, Mathematics, Geography, Physics, PE and Psychology. General Studies excluded. Chemistry is preferred at A/AS Level but not essential. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics (minimum grade B or 6) required if not offered at A/AS Level.</p> <p><b>International Baccalaureate: 32–35 points</b> Including Biology at Higher Level grade 6. Chemistry preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 5 if not offered at Higher Level.</p>

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Stage 2 Direct Entry:** direct entry on to Stage 2 of our Animal Science degree may be offered to students who have completed a Newcastle University-accredited foundation programme with Northumberland College – see [www.northumberland.ac.uk](http://www.northumberland.ac.uk)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Agriculture; Biology and Zoology; Environmental and Rural Studies; Marine Sciences; Psychology

## Your Future Career

Our degrees can lead to a wide range of careers in animal science, agricultural and environmental sectors. Examples include: animal welfare, as an RSPCA inspector or farm assurance assessor; animal health, as a research scientist working in product development for new vaccines; account manager for an animal health company selling pharmaceutical products to veterinary practices and agricultural merchants; animal nutrition, as a nutritionist for a livestock feed compounder or a pet food manufacturer; and animal breeding, as a geneticist for a breeding company.

Other possible careers include: teaching; marketing; management; the media; finance; law; the armed forces; or the police force. Many of our students continue their career in research, progressing to undertake a specialist MSc or PhD.



## Why Study With Us?

Study on a degree with a wide range of subjects from microbiology and biochemistry, to animal behaviour, reproduction and nutrition.

**Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement in the UK or overseas (subject to availability). Find out more on pages 14–15. There are also opportunities with our partner animal centres and our extensive list of industry contacts to develop your practical animal skills and experience.

**Study abroad:** you may choose to study abroad for a year between Stages 2 and 3 of your degree. Alternatively, there's also the opportunity for you to study at an international university for one or two semesters. See page 16 for more information.

**Study at the cutting edge:** your teaching is shaped by the discoveries of our specialist Animal Science research group, which is internationally recognised for its assessment and improvement of animal welfare, and for the development of sustainable systems of livestock production.

**Enjoy regular visits to animal centres:** including: riding schools; animal rescue centres; livery yards; kennels; cattle, sheep and poultry farms; and our two University farms.

**Develop practical animal skills:** such as behaviour observation and animal welfare assessment techniques.

**Enhance your employability:** develop skills that appeal to employers throughout your degree, with a highlight being a final-year group project to organise a scientific conference on a current 'hot' topic in animal science.

**Gain a high level of scientific knowledge:** your degree can be a springboard to a career in the animal sector, for example, to work as an animal nutritionist, welfare assessor or scientific researcher.

## Animal Science

**BSc Honours | C305 | 3 years** |  

This degree focuses on the underlying scientific principles that govern how domestic animals function and behave. We place a particular emphasis on the scientific study of livestock and companion animals (including horses), developing your in-depth knowledge as well as professional, academic and practical skills, in areas such as laboratory techniques, behaviour observation, data analysis and animal welfare assessment.

**Stage 1:** The first year provides a solid base in the underlying science of domestic animals, covering topics such as genetics, microbiology, biochemistry and physiology. We also introduce you to health challenges that animals face and animals as part of sustainable food chains.

You undertake training in academic and professional skills, to support and enhance your success in subsequent Stages of the degree and beyond.

**Stage 2:** We continue to develop your knowledge of animal biology, applying scientific principles to areas such as animal nutrition, parasitology and immunology. We also introduce you to more applied topics such as animal husbandry, breeding, behaviour and feed science. You can choose whether to focus more on farm animals or companion animals, study topics that apply to both groups of animals, or choose from other related biology topics.

**Stage 3:** Teaching in the final year draws on the latest scientific discoveries about how animals function and what affects their growth, health, welfare, behaviour and reproduction. You will be encouraged to understand and interpret data on animals from the latest scientific studies being undertaken around the world, and to develop your own understanding of the possible limitations and implications of this work.

You have a choice of modules that allows you to focus on the management of particular species, such as commercial pig and chicken production or zoo animals, or which take a broader view across different species, such as comparative animal physiology or animal welfare.

A research project accounts for a quarter of your total marks in the final year and involves collection, analysis and interpretation of data to answer a specific question related to animal science. Depending on the question being asked, the project can be laboratory based on the main campus, carried out at one of the University's farms, or at an animal centre in the UK during the vacation between Stages 2 and 3.

As well as knowledge and practical animal-related skills, our degree is designed to nurture and develop a range of professional skills that graduate employers ask for. The final-year Animal Science Conference is an ideal opportunity to practise and demonstrate transferable skills such as project management, problem-solving and organisation, as you work in a team to organise a scientific conference on the latest issues in animal science.

You also work in a small group to prepare your own presentation to deliver at the conference.



# Archaeology

Degree	UCAS	Entrance requirements
Archaeology BA Honours	V400	<b>A Level: ABB–BBB</b> General Studies accepted. <b>International Baccalaureate: 32 points</b> With three subjects at Grade 5 or above at Higher Level.
Ancient History and Archaeology BA Honours	VV14	<b>A Level: ABB</b> General Studies accepted. <b>International Baccalaureate: 32 points</b> With three subjects at Grade 5 or above at Higher Level.
History and Archaeology BA Honours	VV41	<b>A Level: ABB</b> Usually including History (AS Level History required if not offered at A Level). General Studies accepted. <b>International Baccalaureate: 32 points</b> History required at Higher Level grade 6 or above.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Classics and Ancient History; Combined Honours (Archaeology, plus up to two other subjects); History

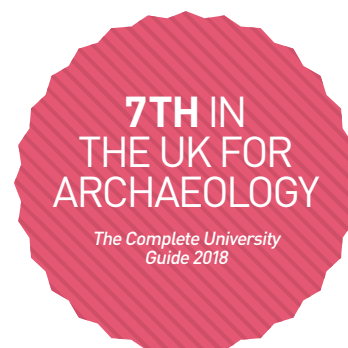
## Your Future Career

Many of our graduates progress to a career in the heritage sector. Some work as: professional archaeologists; historians with organisations such as English Heritage; in museums; and in local authority planning offices. Our students also volunteer in museums or on excavations to increase their practical experience. Newcastle has a network of museum and heritage sites that can provide voluntary experience while you are here.

Our 2016 Archaeology BA Honours graduates are working in roles such as: digitisation assistant; research officer; field archaeologist (site assistant); project specific archaeologist; and trainee pargeter and plaster conservator.

Our graduates also work in a variety of other industries including: publishing; broadcasting; public relations; finance; marketing; management; and teaching.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Archaeology BA Honours leavers, within six months of graduating)





## Why Study With Us?

From bones to burials, artefacts to artwork, pottery to people, and streets to cities, archaeology uses a huge range of sources and methods to build a picture of past societies.

### League table ranking:

- ▶ 7th in the UK – *The Complete University Guide 2018*
- ▶ top 10 in the UK – the *Guardian University Guide 2018*
- ▶ 97% overall satisfaction score – National Student Survey 2017
- ▶ top 20 in the UK – *The Times/Sunday Times Good University Guide 2018*
- ▶ top 150 – Archaeology category – QS World University Rankings by Subject 2017
- ▶ top 200 – Arts and Humanities category – *Times Higher Education World University Rankings by Subject 2018*

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

 **Study abroad:** you have the opportunity to broaden your academic experience by taking part in a study abroad exchange. See page 16 for more information.

**Enjoy guaranteed fieldwork:** this is an integral part of our degrees and our University-led projects ensure that all students have the opportunity to take part. Gaining fieldwork experience is vital if you wish to work in archaeology after you graduate. We offer you:

- ▶ a minimum of four weeks' fieldwork in the summer vacations at the end of Stages 1 and 2
- ▶ one guaranteed place for every student on a University-run fieldwork project
- ▶ tuition from professional archaeologists in vocational skills such as: surveying and excavation techniques; and recording and analysing archaeological sites, landscapes, buildings and objects

You also have the flexibility to work on a project of your choosing, with the approval of the School, including work experience in a museum or other heritage organisation in Stage 2.

Placements are available for Years 12 and 13 students on some of our in-house excavation projects. Contact us to find out more.

**Make the region your classroom:** see the past come to life around you in the historically rich city and region on your doorstep. We offer one of the largest concentrations of heritage sites

and historic landscapes in the world, including Hadrian's Wall, Northumberland National Park, and the city of Newcastle itself.

**Learn in specialist facilities:** including our dedicated archaeology laboratory with equipment for artefact analysis and permanent collections of human remains, animal bones, metallurgy, Roman pottery and our Victorian household collection.

**Explore world-class treasures from Ancient Greece and Rome:** in the University-led Great North Museum: Hancock on campus.

**Develop practical skills:** practise artefact handling using our teaching collections.

**Enjoy choice and flexibility:** our wide-ranging degrees let you study sites and finds from prehistory to the present day.

**Stand out from the crowd:** our close links with local heritage organisations provide opportunities for volunteering and research experience.

## Archaeology

BA Honours | V400 | 3 years |  

This degree inspires you to think about the human past, and the varied ways in which archaeologists can investigate and interpret material remains. We provide a hands-on experience of human history, with many chances to work directly with artefacts and to take part in fieldwork.

**Stage 1:** We place a strong emphasis on the archaeology of Britain, from the Stone Age to the recent past. The year includes the unique module *Stuff: Living in a Material World*, which introduces the study of material culture and ideas about the relationships between people and their things. You also visit local sites and museums. At the end of Stage 1 you complete at least two weeks' excavation fieldwork, from a choice of projects in the UK or abroad.

**Stages 2 and 3:** We extend the geographical range of your studies to Europe and beyond, and offer modules from prehistory up to the present day. Your wide choice of optional modules includes topics such as the environment, glass-making technology, artefacts, historic landscapes, or the archaeology of the Roman Empire. You complete a further two weeks of fieldwork at the end of Stage 2.

You also complete a dissertation, which gives you the opportunity to conduct research under the supervision of our expert academic staff. Training in fieldwork methods, artefact handling and archaeological recording techniques is an important part of your programme, equipping you with the field skills required by professional archaeologists.



## Ancient History and Archaeology

BA Honours | VV14 | 3 years | 

This degree combines the study of Ancient Greece and Rome with the archaeological theories and techniques used to interpret the remains of these ancient societies. You may also study Latin or Greek languages from beginners', intermediate or advanced level.

**Stage 1:** You receive the same practical training as our Archaeology BA Honours students, learning the essential theories, methods and practical skills used in archaeology. At the end of Stage 1 you complete at least two weeks' excavation fieldwork, from a choice of projects in the UK or abroad. You study Greek and Roman art and history, and can choose from a range of optional topics such as Prehistoric Britain and Greek and Latin languages.

**Stage 2:** You investigate Hellenistic and Roman imperial history and the archaeology of the Roman Empire. Further options extend the geographical range of your study to include the rest of Europe and beyond. Practical options include modules on artefacts, which use the collections in the University-led Great North Museum: Hancock. You choose your remaining topics from pathways in archaeology or ancient history. You also complete two weeks of fieldwork at the end of Stage 2.

**Stage 3:** You complete a dissertation in either archaeology or in ancient history and archaeology, conducting in-depth research on a topic that interests you. You then have a free choice of optional modules. These cover areas such as: Byzantine archaeology; later Mediterranean prehistory; the Persian Empire, and the fall of the Roman Republic.

*'Even in lectures there's a big emphasis on the practical aspects of the subject – it's common to be handed artefacts to examine while the lecturer talks about their wider context. Lecturers also make a real effort to get to know their students and help them explore their interests.'*

Douglas, Archaeology BA Honours

## History and Archaeology

BA Honours | VV41 | 3 years | 

This degree combines the study of historical documents and archaeological remains to understand how past communities lived. We focus principally on the period 400 CE to the present day, with a strong emphasis on artefact handling and analysis. You complete a minimum of four weeks' fieldwork across Stages 1 and 2.

**Stage 1:** This year introduces you to the archaeology of Roman, Saxon, Viking, medieval and post-medieval Britain. You take the same practical introduction to archaeology as our Archaeology BA Honours students, including visits to local archaeological sites and museums. You also take introductory modules in history, introducing you to important research, reading and writing skills that you will need during your University career and beyond.

**Stages 2 and 3:** A dedicated compulsory module taken at Stages 2 and 3 introduces you to the unique discipline of historical archaeology, a field of study integrating historical documents with material remains excavated by archaeologists.

The geographical and chronological choice of options gets significantly broader and you can study topics within British and European archaeology and history, from later prehistory to the present day. There are also options in North American, Mexican, East Asian and Russian history.

At Stage 3, you complete a dissertation in history and archaeology that integrates the study of historical documents with excavated material remains.



# Architecture

Degree	UCAS	Entrance requirements
<b>Architecture BA Honours</b>	K100	<b>A Level: AAA</b> GCSE grade B or 6 in Mathematics and English required if not taken at a higher level. All candidates will be required to submit a portfolio for review as part of the selection process. <b>International Baccalaureate: 36 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level. All candidates will be required to submit a portfolio for review as part of the selection process.
<b>Architecture and Urban Planning BA Honours</b>	K190	<b>A Level: ABB</b> <b>International Baccalaureate: 32 points</b> With three subjects at Grade 5 or above at Higher Level.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

We also offer: **Graduate Certificate in Architectural Practice**, **Master of Architecture MArch** and **Diploma in Architectural Practice and Management**. Please see page 59 for more information about qualifying as a registered architect.

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Civil Engineering; Fine Art; Geography; Urban Planning

## Your Future Career

Our Architecture BA Honours degree is your first step towards qualification as a professional architect and most graduates continue on that route into architectural practice (see page 58).

Our 2016 Architecture BA Honours graduates are working in roles such as: architect; architectural assistant; assistant architect; assistant interior designer; and events and exhibitions designer.

Graduates from both our Architecture BA Honours and Architecture and Urban Planning BA Honours degrees also work in other creative industries, including television, film, advertising and other design-based professions. You could also enter professional fields such as: teaching; law; construction management; surveying; planning; urban design; and sustainability and landscape architecture.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Architecture BA Honours leavers, within six months of graduating)





## Why Study With Us?

With a constantly evolving city on your doorstep, Newcastle provides the ultimate case study for architecture students.

### League table ranking:

- ▶ 4th in the UK for research power and intensity – Research Excellence Framework 2014
- ▶ 5th in the UK – *The Complete University Guide 2018*
- ▶ 7th in the UK – *The Times/Sunday Times Good University Guide 2018*
- ▶ top 150 – Architecture category – QS World University Rankings by Subject 2017
- ▶ top 200 – Arts and Humanities category – *Times Higher Education* World University Rankings by Subject 2018

✓ **Professional accreditation\***: our Architecture BA Honours degree is validated by the Royal Institute of British Architects (RIBA) and we are currently seeking accreditation from the Architects Registration Board (ARB).

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course:

[www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

👤 **Boost your CV with a work placement**: students studying Architecture and Urban Planning BA Honours can apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

✈️ **Study abroad**: You have the opportunity to take part in a study abroad exchange as part of your degree – look for the ✈️ symbol. See page 16 for more information.

**Find your own design approach**: enjoy the freedom to explore individual design ideas and to develop your own distinctive way of working.

**Develop professional skills in fantastic facilities**: our design studios are accessible 24/7, with CAD facilities and drawing boards. Our fully staffed model-making workshop has a range of cutting-edge machinery including powerful laser cutters, CNC routers, Z Corp and MakerBot 3D printers.

**Experience architecture at home and abroad**: take advantage of UK and European field trips to visit key buildings and discover architecture in different places and cultures.

**Learn from professionals**: benefit from tutors based in professional practice and from lectures by innovative architects, consultants and researchers.

**Benefit from our depth of expertise**: we're one of the largest and most active centres for built environment research in the UK.

**Get hands-on experience**: collaborate with artists and engineers to test design ideas at 1:1 scale, and explore alternative forms of practice with community projects in the UK and Africa.

**Shape your own specialism**: choose from diverse design studios and study routes to acquire knowledge and skills to support your interests.

**Study in a unique environment**: the rise and decline of heavy industry combined with Newcastle's recent cultural renaissance have left an architectural legacy that few UK cities can rival.

## Architecture

### BA Honours | K100 | 3 years | ✓

This design-based degree provides exemption from the RIBA Part 1 examination. You will take part in a wide range of activities, from library-based research to hands-on construction, but for the most part will work on design projects that involve a lot of manual and computer-aided drawing and model-making. These projects increase in scale and complexity as the course progresses. We encourage you to develop your own design approach and interests, while providing you with the knowledge to understand the immediate and wider implications of your design decisions.

**Stage 1**: We begin with a varied introduction to architecture featuring numerous workshops, visits and hands-on activities. Design issues such as scale, function, materiality, atmosphere, space and construction are explored in a studio environment through diverse projects and a wide range of media. Introductory modules in architectural theory, history and technology are taught through lectures, seminars and group work, much of which is integrated into design teaching.

**Stage 2**: A challenging series of studio-based projects focuses on architecture's wider role in the city and society, as well as on how buildings are made and experienced. Briefs explore dwelling, community and cultural spaces, honing design skills from urban scale to detail. You are encouraged to assimilate knowledge and understanding of increasingly complex technical, historical and theoretical issues, so that these underpin your design work. Thematic seminars support you towards a dissertation on a topic of your choice.

**Stage 3**: You select from a wide range of year-long research-led design studios, each of which hosts a variety of tailored activities, including a European residential field trip. Studios commence with a stimulating 'primer' project that sets the themes and establishes the agenda for your longer graduation project.

This comprises a more complex and comprehensive design enquiry that allows you to celebrate and integrate your individual skills and learning from across the course.

### Qualifying As A Registered Architect

Our Architecture BA Honours degree is your first step towards qualifying as an architect. It is professionally accredited by the Royal Institute of British Architects (RIBA) and the Architects Registration Board (ARB). This means that successful completion of the degree satisfies ARB requirements and provides exemption from the RIBA Part 1 examination.

After that, you need to complete four further years in work and study. At Newcastle, we offer all the qualifications to qualify as an architect, so you will not need to change universities or move away to complete your architectural education. To become a registered architect, after your Architecture BA Honours degree, you will need to complete:

- ▶ **Graduate Certificate in Architectural Practice** – a year in practice in the UK or abroad, alongside several short courses at the University and self-study assignments
- ▶ **Master of Architecture MArch (RIBA Part 2 accredited)** – a two-year University-based course focused on developing advanced design, technical and professional skills. Projects engage with themes and techniques at the forefront of contemporary practice and research. A choice of study routes allows you to shape your own area of specialisation and to experience study abroad
- ▶ **Diploma in Architectural Practice and Management (RIBA Part 3 accredited)** – the final qualification needed to become a registered architect. A one-year, part-time course taken while you work as an architectural assistant

Our courses give unconditional exemptions from the RIBA and ARB examinations, taking you to full qualification as a registered architect.

## Architecture and Urban Planning

### BA Honours | K190 | 3 years | 🇬🇧✈️

This degree offers a lively and thought-provoking introduction to important ideas about architecture and cities. We place particular emphasis on the idea of 'alternative practice', inspired by the work of radical architects and planners whose approach

encourages people to actively participate in the design of their environment. We use design projects, historical examples, theoretical ideas and a live community design project to introduce radical ideas about how architecture and cities can be developed and the planning processes involved.

**Stage 1**: Through a varied series of design projects, workshops and visits, we introduce you to key design skills. You gain an understanding of scale and context and develop spatial imagination and an understanding of materiality and structural issues at stake. These will underpin your design work and help you communicate your ideas verbally and visually. You will work in our well-equipped design studio in order to gradually develop your architectural thinking, skills and knowledge. Introductory modules in alternative practice, architectural history, the current planning process, as well as architectural theory, history and technology, are taught through lectures, seminars and group work, some of which are integrated into design teaching.

**Stage 2**: You gain a deeper understanding of the development of urban architecture and theories of alternative practice. Design modules will enhance your skills and help you develop an understanding of a greater range of scales including issues related to 20th-century heritage. You may choose from a range of modules, from cities and poverty to politics of the arts, as well as exploring the opportunities for civic engagement that digital technologies can facilitate. You may also opt for a module that includes a field trip to the UK or Europe, focusing on sustainability and alternative practice. You also develop your research skills and prepare for your dissertation.

**Stage 3**: You undertake a dissertation on a topic of your choice, as well as engaging in a community live design project supporting a local organisation where you can see theory in practice. In addition, you will select optional modules from a wide range relating to cities, space and people, as well as having the opportunity to study at universities in Sweden, the Netherlands or Belgium as part of our Erasmus+ exchange programme.

**Flexibility to transfer**: The first year is designed in such a way that you can explore where your interests and abilities lie. Upon successful completion of the required elements of Stage 1, the eligibility for transfer to Stage 2 of our Architecture BA Honours degree is subject to compilation of a high-quality design portfolio and an interview with the design tutors from the Architecture BA Honours degree. Transfer can also be offered to Urban Planning BA Honours, or Master of Planning MPlan Honours. See online for more details [www.ncl.ac.uk/undergraduate/degrees/k190/#courseoverview](http://www.ncl.ac.uk/undergraduate/degrees/k190/#courseoverview)



# Biology and Zoology

Degree	UCAS	Entrance requirements
<b>Biology BSc Honours</b>	C100	<b>A Level: AAB-ABB</b> Including Biology and normally another science-related subject from: Chemistry, Mathematics, Physics, Geography, Psychology, Environmental Science or Geology. General Studies is excluded. Chemistry is preferred at A or AS Level, but not essential. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics minimum grade B or 6 if not offered at A or AS Level.
<b>Biology (Cellular and Molecular Biology) BSc Honours</b>	C1C7	
<b>Biology (Ecology and Conservation) BSc Honours</b>	C182	<b>International Baccalaureate: 32-34 points</b> Normally including Higher Level Biology at grade 6 or above. Chemistry is preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 5 if not offered at Higher Level.
<b>Zoology BSc Honours</b>	C300	<b>A Level: AAB-ABB</b> Including Biology and normally another science-related subject from: Chemistry, Mathematics, Physics, Geography or Psychology. Chemistry is preferred at A or AS Level, but not essential. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics minimum grade B or 6 if not offered at A or AS Level.
		<b>International Baccalaureate: 35 points</b> Normally including Higher Level Biology at grade 6 or above. Chemistry is preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 5 if not offered at Higher Level.
<b>Biology MBiol Honours</b>	C103	<b>A Level: AAB-ABB</b> Including Biology and normally another science-related subject from: Chemistry, Mathematics, Physics, Geography, Psychology, Environmental Science or Geology. General Studies is excluded. Chemistry is preferred at A or AS Level, but not essential. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics minimum grade B or 6 if not offered at A or AS Level.
<b>Biology (Cellular and Molecular Biology) MBiol Honours</b>	C7C1	
<b>Biology (Ecology and Conservation) MBiol Honours</b>	C183	<b>International Baccalaureate: 32-34 points</b> Normally including Higher Level Biology at grade 6 or above. Chemistry is preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 5 if not offered at Higher Level.
<b>Zoology MBiol Honours</b>	C301	<b>A Level: AAA-AAB</b> Including Biology and normally another science-related subject from: Chemistry, Mathematics, Physics, Geography or Psychology. Chemistry is preferred at A or AS Level, but not essential. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics minimum grade B or 6 if not offered at A or AS Level.
		<b>International Baccalaureate: 35 points</b> Normally including Higher Level Biology at grade 6 or above. Chemistry is preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 5 if not offered at Higher Level.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222-223.


**YOU MAY ALSO BE INTERESTED IN:** Agriculture; Animal Science; Applied Plant Science; Biomedical and Biomolecular Sciences; Marine Sciences; Nutrition and Food; Psychology; Psychology and Biology


## Why Study With Us?

Biology and Zoology at Newcastle deal with all forms of life, ranging in scale from micro-organisms to mammals, and from biomolecules to the biosphere.

### League table ranking:

- 92nd – Life Sciences category – *Times Higher Education* World University Rankings by Subject 2018
- top 150 – Biological Sciences category – QS World University Rankings by Subject 2017

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14-15. You can also do a shorter work placement as part of an optional Stage 2 module in employability skills.

 **Study abroad:** you have the opportunity to take part in a study abroad exchange in your second year through our non-EU exchange scheme. Opportunities exist in Canada, the USA and Australia. Alternatively you can arrange to study abroad for one semester. See page 16 for more information.

**A shared first year to see where your interests lie:** all our students study the same modules for the first year. This ensures you gain an excellent foundation in biology and gives you time to explore our broad curriculum. Transfer between our Biology and Zoology degrees is possible until the end of Stage 1, if you find that your interests change during this time.

**Benefit from a broad curriculum:** which includes optional modules in agricultural science, marine biology and psychology.

**Develop practical skills:** develop skills valued by employers through species identification field courses and laboratory-based practical classes.

**Gain skills in field biology:** through a week-long residential field course on ecology or animal

behaviour in the UK or abroad, and an optional tropical conservation research module in degrees C100, C103, C182, C183, C300 and C301.

**Gain laboratory experience:** learn valuable skills in the application of molecular techniques in degrees C100, C103, C1C7 and C7C1.

**Enjoy fantastic facilities:** including well-equipped laboratories on campus and a field station off campus. You'll develop the key laboratory and field techniques required by professional biologists.

**Join a supportive subject area:** student peer mentors, small group teaching and our student society help you settle in and make friends.

## Biology

**BSc Honours | C100 | 3 years**  

**MBiol Honours | C103 | 4 years**  

These degrees provide our broadest range of topics from across the full spectrum of biology, dealing with all forms of life, at all scales from cells and molecules to whole organisms and ecosystems.

**Stage 1:** The first year provides you with a thorough knowledge of the fundamentals of biology. You study the diversity of form and function in modules covering animals, plants and micro-organisms. You take additional core modules in ecology, evolution, biochemistry, cell biology and genetics, and select one other topic from agricultural science, marine biology and psychology. You also take part in small group teaching through tutorials with your personal tutor.

**Stage 2:** You continue to study a wide range of organisms through topics including: biodiversity, ecology and conservation; molecular biology and development; vertebrate biology; animal physiology; plant biology; and microbiology. Optional modules are also available in more specialised topics, and there is the opportunity to do a short vocational placement.

 **Continued overleaf.**

## Your Future Career

Our graduates work in areas that include: research and development; environmental management; education; science communication; clinical science; and sales and management.

Some graduates use their degree as a stepping stone into very different careers ranging from banking and retail management, to media production, event management, adventure tourism and advertising. Some of our graduates go on to postgraduate training, undertaking an MSc or PhD.

**92ND  
FOR LIFE  
SCIENCES**

*Times Higher Education  
World University Rankings  
by Subject 2018*



**Stage 3:** You study advanced specialist topics, many of which are directly linked to our research expertise, such as: molecular evolution and systematics; genomics; photosynthesis; plant diseases; biotechnology; animal ecophysiology; ecology (applied, behavioural, or modelling); and biodiversity science and management. To enhance your skill set you will also have the opportunity to select a module that focuses on development of ideas for a business.

Throughout the course, there are opportunities for laboratory and field-based work that equips you with the scientific skills required by professional biologists. In Stage 2, you take a species identification field course, picking any two from plants, insects and birds.

You can develop skills in fieldwork further during Stages 2 and 3 through optional field courses. These include a project-based residential field course (locations include Kielder in Northumberland, Millport in the Firth of Clyde, and Crete), a mammal surveying skills module in the UK and a tropical conservation research module. Laboratory-based modules develop your ability to use molecular and related techniques.

During Stage 3 you spend around a third of your time on your own individual project. This can be based on field or laboratory research, a detailed review of research publications on a specialist topic, or a project to enhance the public understanding of science.

**Stage 4 (MBiol only):** You build on the knowledge and skills you developed in the first three Stages, working alongside our research-active staff to explore advanced topics in biology. You undertake a significant research project working with an active research group. You also have the opportunity to choose from specialist topics such as: gene technology; wildlife disease management; applied bioinformatics; and ecological survey techniques.

*'My course has been interesting from start to finish; you really get out what you put in. There are many lab sessions to teach you vital techniques should you want to pursue a career in industry.'*

Ollie, Biology (Cellular and Molecular Biology) BSc Honours

## Biology (Cellular and Molecular Biology)

BSc Honours | C1C7 | 3 years |  

MBiol Honours | C7C1 | 4 years |  

These degrees cover plants, animals and micro-organisms. There is a strong focus on biomolecules, organelles and cells, and how they contribute to the function of organisms as a whole.

**Stage 1:** You study a common curriculum, developing a firm foundation in the subject and discovering where your interests lie (see Biology BSc Honours, page 61).

**Stage 2:** You focus on the study of how organisms function through topics including: molecular biology and development; cell biology; biotechnology; plant biology; and microbiology. You develop practical skills required by professional biologists through laboratory-based sessions that include practical training in molecular techniques. Optional modules are also available in more specialised topics, and there is the opportunity to do a short vocational placement.

**Stage 3:** You study advanced specialist topics, many of which are directly linked to our research expertise, such as: advanced cell biology; genomics; biotechnology; and 'bioprospecting' for active compounds. To enhance your skill set you will also have the opportunity to select a module that focuses on development of ideas for a business.

You spend around a third of your time on your own individual project. This can be based on laboratory research, a detailed review of research publications on a specialist topic, or a project to enhance the public understanding of science.

**Stage 4 (MBiol only):** You build on the knowledge and skills you developed in the first three Stages, working alongside our research-active staff to explore advanced topics in biology. You undertake a significant research project working with an active research group. You also have the opportunity to choose from specialist topics such as: gene technology; genetically engineered organisms; applied bioinformatics; antimicrobial discovery; and modelling and control in bioprocess systems.

## Biology (Ecology and Conservation)

BSc Honours | C182 | 3 years |  

MBiol Honours | C183 | 4 years |  

These degrees cover plants, animals and micro-organisms. There is a strong focus on whole organisms, their ecology and their role in the environment.

**Stage 1:** You study a common curriculum, developing a firm foundation in the subject and discovering where your interests lie (see Biology BSc Honours, page 61).

**Stage 2:** You focus on the study of how organisms interact with one another and with the wider environment, through topics including: UK wildlife; population genetics; plant biology; pollution science; vertebrate biology; and biodiversity, ecology and conservation. Optional modules are also available in more specialised topics, and there is the opportunity to do a short vocational placement.

**Stage 3:** You study advanced specialist topics, many of which are directly linked to our research expertise, such as: applied ecology; biodiversity science and management; behavioural ecology; animal ecophysiology; and ecological modelling. To enhance your skill set you will also have the opportunity to select a module that focuses on development of ideas for a business.

Throughout the course, there are opportunities for laboratory and field-based work that equips you with the scientific skills required by professional biologists. In Stage 2, you take a species identification field course, picking any two from plants, insects and birds.

You develop skills in fieldwork further through field courses at Stages 2 and 3. These include a project-based residential field course (locations include Kielder in Northumberland, Millport in the Firth of Clyde, and Crete) and an optional mammal surveying skills module in the UK or tropical conservation research module in Thailand.

During Stage 3 you spend around a third of your time on your own individual project. This can be based on field or laboratory research, a detailed review of research publications on a specialist topic, or a project to enhance the public understanding of science.

**Stage 4 (MBiol only):** You build on the knowledge and skills you developed in the first three Stages, working alongside our research-active staff to explore advanced topics in biology. You undertake a significant research project working with an active research group. You also have the opportunity to choose from specialist topics such as: biodiversity conservation; ecosystem management; management of wildlife disease and epidemiology; and global species conservation principles and practice.

## Zoology

BSc Honours | C300 | 3 years |  

MBiol Honours | C301 | 4 years |  

Zoology is the scientific study of all forms of animal life, including how they behave, reproduce, evolve and interact with other species and their environment.

**Stage 1:** You study a common curriculum, developing a firm foundation in the subject, putting animals in context and discovering where your interests lie (see Biology BSc Honours, page 61).

**Stage 2:** Your study of animals becomes more specialised, with topics such as: animal behaviour; animal physiology; entomology; vertebrate biology; and biodiversity, ecology and conservation. Optional modules are also available in more specialised topics, and there is the opportunity to do a short vocational work placement.

**Stage 3:** You study advanced specialist topics, many of which are directly linked to our research expertise, such as: animal ecophysiology; behavioural ecology; mechanisms of behaviour; applied ecology; ecological modelling; and biodiversity science and management. To enhance your skill set you will also have the opportunity to select a module that focuses on development of ideas for a business.

Throughout the course, there are opportunities for laboratory and field-based work that equips you with the scientific skills required by professional biologists. In Stage 2, you take a field course on identification of insects and birds.

You develop skills in fieldwork further through field courses at Stages 2 and 3. These include a project-based residential field course (locations include Kielder in Northumberland, Millport in the Firth of Clyde, and Crete), an optional mammal surveying skills module in the UK, or a tropical conservation research module in Thailand.

During Stage 3 you spend around a third of your time on your own individual project. This can be based on field or laboratory research, a detailed review of research publications on a specialist topic, or a project to enhance the public understanding of science.

**Stage 4 (MBiol only):** You build on the knowledge and skills you developed in the first three Stages, working alongside our research-active staff to explore advanced topics in zoology. You undertake a significant research project working with an active research group. You also have the opportunity to choose from specialist topics such as: biological study of behaviour; global species conservation; animal welfare science; and wildlife disease and epidemiology.



# Biomedical and Biomolecular Sciences

Degree	UCAS	Entrance requirements
<b>Biochemistry BSc Honours</b>	C700	<b>A Level: AAA-AAB</b>
<b>Biochemistry Integrated Master's MSci Honours</b>	C701	Including Biology or Chemistry, plus at least one from: Mathematics or Further Mathematics; Physics; Psychology; Biology; or Chemistry. General Studies, Use of Mathematics, World Development, Communication and Culture and Critical Thinking not accepted. GCSE Chemistry and Biology (minimum grade A or 7) and GCSE Mathematics and English Language (minimum grade B or 6) required if not offered at A or AS Level. GCSE Combined Science (minimum grade A or 7) may be accepted.
<b>Biomedical Genetics BSc Honours</b>	B901	
<b>Biomedical Genetics Integrated Master's MSci Honours</b>	B903	
<b>Biomedical Sciences BSc Honours</b>	B940	
<b>Biomedical Sciences Integrated Master's MSci Honours</b>	B900	<b>International Baccalaureate: 34–35 points</b> With Biology or Chemistry and another science at Higher Level grade 5 or above. We regard Mathematics, Physics, Psychology, Biology and Chemistry as acceptable science subjects. Standard Level Chemistry and Biology required at grade 5 and Standard Level Mathematics or Mathematical Studies and English required at grade 4 if not offered at Higher Level. GCSE Combined Science (minimum grade A or 7) may be accepted.
<b>Medical Science (Deferred Choice) BSc Honours</b>	B902	
<b>Pharmacology BSc Honours</b>	B210	
<b>Physiological Sciences BSc Honours</b>	B100	

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Biology and Zoology; Chemistry; Dentistry; Medicine; Nutrition and Food; Pharmacy; Psychology

## Your Future Career

Industries employing bioscientists for research and development include: health services; hospital and public health laboratories; pharmaceuticals; biotechnology; chemical; cosmetics and toiletries; food and drink; medical, veterinary and agricultural research in universities and research institutes.

Many of our graduates take an MSc or PhD before embarking on permanent employment. Some use their degree as a route for graduate entry into medicine, dentistry and teaching, while others use their scientific knowledge to advise on patenting or scientific journalism.

Our 2016 Biomedical and Biomolecular Sciences BSc and MSci Honours graduates are working in roles such as: clinical specialist; laboratory analyst; research technician; clinical data associate; trainee clinical scientist; and international business development consultant.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Biomedical and Biomolecular Sciences BSc and MSci Honours leavers, within six months of graduating)

**1ST IN THE  
UK FOR STUDENT  
SATISFACTION FOR  
BIOCHEMISTRY**

National Student Survey 2017

## Why Study With Us?

Newcastle is a designated National Centre of Excellence in biomedical research, giving you the chance to study the very latest ideas in human health and disease.

### League table ranking:

- ▶ 1st in the UK for student satisfaction for Biochemistry (100% overall satisfaction score) – National Student Survey 2017
- ▶ top 10 in the UK for Biomedical Sciences – *The Times/Sunday Times Good University Guide 2018* (Subjects Allied to Medicine category)
- ▶ top 20 in the UK for student satisfaction (93% overall satisfaction score) – National Student Survey 2017 (Subjects Allied to Medicine category)
- ▶ top 125 – Clinical, Pre-clinical and Health category – *Times Higher Education World University Rankings by Subject 2018*

As a National Centre of Excellence, our biomedical research fields include: ageing; cell and molecular biosciences; cellular medicine; health and society; genetic medicine; cancer research; neurosciences; stem cells; and regenerative medicine.

✓ **Professional accreditation\*:** all of our BSc courses (excluding Medical Science (Deferred Choice)) are accredited by the Royal Society of Biology (RSB). Our Biochemistry, Biomedical Genetics and Biomedical Sciences Integrated Masters' degrees have advanced accreditation by the Royal Society of Biology (RSB). Accreditation by RSB recognises academic excellence in the biosciences that educates the research and development leaders and innovators of the future.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional professional placement or work placement (subject to availability). Find out more on pages 14–15.

✈️ **Study abroad:** you can gain an international perspective on your subject by taking part in a study abroad exchange, either in Europe through Erasmus+, or in Singapore, North America or Australia via our non-EU exchange scheme. See page 16 for more information.

**Flexible study:** we've designed our degrees so that all of our students, regardless of which degree they apply for, study the same core modules at the start of their degree. This gives you time to explore the subject areas and see where your interests lie before you specialise in the later Stages of your course. This means you are able to transfer to a different degree within the biomedical and biomolecular sciences programmes at the end of Year 1 if you find your interests change during this time.

**Transfer to Medicine or Dentistry:** any student registered on a biomedical or biomolecular sciences degree at Newcastle can apply to transfer to the first year of our Medicine and Surgery (A100) or Dental Surgery (A206) degrees at the end of their first year. Both schemes are:

- ▶ competitive, with a limited number of places available
- ▶ open to UK, EU and international students

Students will be selected on the basis of academic performance in the first year, a UKCAT score, a personal statement and, if shortlisted, an interview. Full details of the transfer process are available at [www.ncl.ac.uk/sme/study/undergraduate/admissions/biomed-transfer](http://www.ncl.ac.uk/sme/study/undergraduate/admissions/biomed-transfer)

There is also a graduate entry route into Medicine available at Newcastle University (see page 171).

**Make a direct contribution to world-leading research:** through opportunities with our research institutes. We encourage you to spend at least four weeks of your summer vacation after your second year on work experience. Opportunities include:

- ▶ vacation studentships/placements in one of the University's research laboratories
- ▶ paid part-time laboratory assistant scheme for second-year students (available on a competitive basis)

**Learn from international experts:** as well as conducting world-leading research, our staff provide students with the highest level of research-informed teaching. This means you'll graduate with cutting-edge knowledge in human health and disease.

**Learn in specialist teaching and research facilities:** including four specialist practical laboratories, an extensive medical sciences library and dedicated computer clusters.



## What You Will Study

Our degrees are divided into two Phases and you can transfer between any of our degrees at the end of Year 1 if you wish.

**Phase 1 (all of your first year, and the first half of your second year):** This Phase introduces you to biomolecular sciences through modules covering: cell biology; biochemistry; microbiology and immunology; genetics; pharmacology; physiology; practical skills in biomedical and biomolecular sciences; and a foundation in cell and molecular medicine.

**Phase 2 (the second half of your second year and the remainder of your degree):** This Phase is specific to the individual degree that you choose.

For BSc students, the degree culminates in a final-year research semester where you undertake an individual research project in an area linked to your degree that interests you. This may be:

- ▶ a laboratory project in one of our internationally rated research institutes, or in a research laboratory abroad
- ▶ a clinical study under the supervision of one of the medically qualified staff working within the Faculty
- ▶ a project with a local school or college
- ▶ an IT-based project

We also have a tailor-made range of optional modules for you to enhance your employability skills further in the final year of the programme. All students can select one from the following modules:

- ▶ business for the bioscientist
- ▶ healthcare organisation and practice
- ▶ science communication
- ▶ research in your chosen degree specialism
- ▶ bioethics
- ▶ bioinformatics

**Integrated Masters' (MSci) degrees:** Our Integrated Masters' (MSci) degrees are designed to give students who are interested in a career in research more in-depth training and experience within the laboratory environment. All of these degrees extend your programme to four years. You will undertake an extended individual research project which begins in the final semester of Year 3 and continues throughout your final (fourth) year.

All of our degrees emphasise the development of core practical skills which are in demand by employers. Practical sessions provide you with hands-on experience of key experimental techniques, ensuring that you graduate with the scientific, problem-solving and critical skills valued in many graduate careers. We also place particular significance on introducing you to the most recent and important advances in the fields of our research-active teaching staff.

Go to [www.ncl.ac.uk/biomed/study](http://www.ncl.ac.uk/biomed/study) and click on any of our degrees to find out more about what you will study, including the modules for each Stage.

## Biochemistry

**BSc Honours | C700 | 3 years** | ✓ ☹ ✕

**Integrated Master's MSci Honours | C701 | 4 years** | ✓ ☹ ✕

Biochemistry is the study of life at the molecular level – how genes and proteins regulate cells, tissues and ultimately whole organisms like you. You study a wide range of organisms from bacteria right up to humans. You'll learn about the molecular basis of the structure and processes of life. Biochemistry is at the core of many areas of biology and is responsible for a large number of scientific breakthroughs in medicine and biotechnology.

You explore recent advances in the field of biochemistry through topics such as: DNA replication, recombination and repair; gene expression; chronic disease; cancer; and the importance of the application of biochemistry in real-world problems such as biofuels, nano-circuitry and bio-sensing.

In the final year of study, Biochemistry students complete novel research projects. Previous titles include: DNA repair and PI3K inhibitors in cancer therapy; and characterising a novel regulator of macronutrient digestion as a potential obesity treatment.

## Biomedical Genetics

**BSc Honours | B901 | 3 years** | ✓ ☹ ✕

**Integrated Master's MSci Honours | B903 | 4 years** | ✓ ☹ ✕

Genetics is the study of how DNA is transmitted between generations and decoded to determine our individual characteristics. The University's Institute of Genetic Medicine plays a major role in this degree, which covers: how hereditary material is passed on from one generation to the next; how genes are controlled and how they, in turn, control development; and how mutations can lead to a wide range of diseases.

Biomedical genetics examines themes such as: gene expression; evolution; cytogenetics; bioinformatics; human molecular genetics; genetic control of the cell cycle and development; and cancer biology.

Some examples of the final-year research projects completed by Biomedical Genetics students include: defining the molecular genetic basis of human mitochondrial disease; and screening for genes that cause the heart defects in Turner syndrome.



## Biomedical Sciences

**BSc Honours | B940 | 3 years** | ✓ ☹ ✕

**Integrated Master's MSci Honours | B900 | 4 years** | ✓ ☹ ✕

Modern medicine depends on the advances made by scientists working in the biomedical sciences. These degrees combine key core subjects such as anatomy, biochemistry, genetics, immunology, microbiology, neuroscience, pharmacology and physiology.

You learn about: human anatomy; the nervous system and respiratory diseases; and clinical immunology and viral pathogens. You will be able to choose modules offered by our research institutes, including: chronic and nutrition-related disease; the genetics of common diseases; cancer biology and therapy; diseases of the human nervous system; the biology of ageing; the immunology of health and disease; and medical biotechnology. This multidisciplinary approach helps our understanding of diseases such as cancer, Alzheimer's disease and AIDS for example, which is essential for the development of new and improved treatments, as well as for preventative approaches.



There are a wide range of topics available for you to explore during your third-year research project. Biomedical Sciences students have investigated areas such as: analysis of the cellular infiltrate of graft-versus-host disease; targeting DNA repair as a therapeutic strategy in acute myeloid leukaemia; and modelling liver disease using precision-cut slices.

*'The teaching quality on my course is exceptional. We're taught by relevant and recognised people in specific fields, so we learn about ongoing and ground-breaking research. All of the material we study covers areas at the forefront of research.'*

**Nikita, Biomedical Genetics BSc Honours**



## Medical Science (Deferred Choice)

BSc Honours | B902 | 3 years |   

We encourage you to apply for this degree if you want to study biomedical and biomolecular sciences at Newcastle but are not yet sure which area you want to specialise in.

The first year is the same for all of our Biomedical and Biomolecular Sciences students. Choosing our Deferred Choice degree lets you delay your choice of specialism until the end of this shared year.

At this point you choose which degree you wish to study for your remaining two years for our BSc degrees, or three years if you choose one of our Integrated Masters' degrees.

## Pharmacology

BSc Honours | B210 | 3 years |   

Pharmacology explores how biologically active components (drugs) act on the body and how the body, in turn, can act on drugs. It is thanks to the knowledge that a pharmacologist provides that you can take an aspirin when you get a headache or have an anaesthetic when the dentist gives you a filling.

Pharmacology at Newcastle focuses mainly on the way drugs exert their therapeutic effect in humans by modifying disease processes. We introduce you to the drugs that affect major systems of the body, including the central nervous, cardiovascular, respiratory and endocrine systems. You will also develop an understanding of drug disposition and metabolism to expand your knowledge of both the therapeutic effect and mechanism of toxicity of drugs.

Specialist modules in your third year concentrate on the most recent advances in pharmacology and include topics such as: clinical pharmacology and drug development; carcinogenesis and anti-cancer drugs; pharmacogenetics; neuropharmacology; toxicology; and pharmacological techniques.

Novel research projects undertaken by Pharmacology students have included: drug screening using hepatocytes derived from pancreatic tissue; hepatic toxicity following self-administered constituents of e-cigarettes in rats; and immune-related genotypes and risk of drug-induced liver injury.

## Physiological Sciences

BSc Honours | B100 | 3 years |   

Physiology is the study of the organ systems of the human body and how they control and maintain body function in both normal (health) and pathophysiological (disease) states.

The Physiological Sciences degree provides a thorough understanding of how the human body functions in health and disease, from individual molecules and cells right up to the whole organism. Physiology underpins many of the biomedical, clinical and healthcare sciences.

The degree focuses on organs such as the heart, lungs, kidneys, brain and gastrointestinal tract to provide a broad and integrated understanding of human body function. Topics covered include neuroscience, cardiovascular, respiratory, renal, reproductive, developmental and gastrointestinal physiology.

In your final year, you will undertake a novel research project in one of our world-leading medical faculty research institutes, on topics such as: cardiovascular, respiratory, renal and gastrointestinal physiology; neuroscience; obesity; diabetes; cancer; and ageing.

*'There are lots of contact hours with the teaching staff on our course which give us the chance to ask lots of questions to improve our understanding.'*

**Robin, Biomedical Genetics BSc Honours**



# Business Management

Degree	UCAS	Entrance requirements
<b>Business Management BA Honours</b>	N200	<b>A Level: AAB</b> Excluding General Studies. GCSE Mathematics and English (minimum grade B or 6) required if not taken at A or AS Level. See online for further information on preferred A Level subjects and additional information about GCSE (or equivalent) requirements.  <b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level.
<b>International Business Management BSc Honours</b>	N121	<b>A Level: AAB</b> Any subject combinations accepted excluding General Studies. Minimum grade B or 6 in GCSE Mathematics and English and in a GCSE Modern Language (eg French) if not offered at AS or A Level. See online for additional information about GCSE (or equivalent) requirements.  <b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level. Standard Level 5 or grade B in GCSE English and in a Modern Language (eg French) also required if not offered at Higher Level. See online for additional information about GCSE (or equivalent) requirements.
<b>With Placement BSc Honours</b>	N120	
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a>		
<b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222–223.		

**YOU MAY ALSO BE INTERESTED IN:** Accounting and Finance; Agri-Business and Food Management; Combined Honours (Business, plus up to two other subjects); Economics and Business Management; International Business Management at Newcastle University London; Marketing; Marketing and Management; Mathematics and Economics; Mathematics with Management; Modern Languages and Business Studies

## Your Future Career

Our graduates work with globally recognised companies including: British Airways; Cummins Limited; DHL; Nigel Frank International; Accenture; Brewin Dolphin; Barclays Bank; EY; Vodafone UK; Mercedes-Benz UK; Amazon; KPMG; and Hewlett-Packard.

Our 2016 Business Management BA Honours graduates are working in roles such as: account manager; business development manager; new business development executive; product and channel development executive; technical account manager; and finance analyst.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Business Management BA Honours leavers, within six months of graduating)

**TOP 200 FOR  
BUSINESS AND  
ECONOMICS**

*Times Higher Education  
World University Rankings  
by Subject 2018*



## Why Study With Us?

Our degrees offer significant real-world business experience and outstanding work placement opportunities with globally recognised companies.

### League table ranking:

- top 200 – Business and Economics category – *Times Higher Education* World University Rankings by Subject 2018

✓ **Professional accreditation\***: Our Business Management BA Honours degree offers the opportunity for graduate pathways to professional accreditations by professional bodies including the Chartered Management Institute (CMI) and the Chartered Institute of Personnel and Development (CIPD). You are guaranteed membership of the Chartered Management Institute (CMI) and associate-level membership of the Chartered Institute of Personnel and Development (CIPD), subject to module choice.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). You'll be supported by our dedicated Placement Officer, who works closely with the University's Careers Service to help you to make the most of your skills and to find the best opportunities. Find out more on pages 14–15.

*'I'm hoping to work as a business consultant once I graduate. Through my modules and the use of international case studies, I examine ethical principles and problems that can arise in a business environment. I'm now confident I can conduct myself well in business.'*

Sherry, Business Management BA Honours

✈ **Study abroad:** you can study at one of our partner universities in Europe between Stages 2 and 3. We also have partners outside of Europe. See page 16 for more information.

**Prepare for a successful career:** our degrees are aimed at future business leaders. You'll develop skills for a wide range of careers including consultancy, manufacturing, retail, finance and HR.

**Engage with real-world business challenges and issues:** and develop vital management skills.

**Enrich your passion for languages:** with a choice of language routes on our International Business Management BSc Honours degree.

**Develop expertise and contacts to excel in your future career:** our degrees offer dedicated careers support and business engagement activities. We host a Career Development Week every year so that you can meet potential employers and explore possible careers.

**DTUS sponsorship:** our Business Management BA Honours degree is approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)



## Business Management

BA Honours | N200 | 3 years | ✓ 📅 ✈

Develop the personal and professional skills required to become highly employable in a range of business environments and management careers. This professionally accredited degree will develop your understanding of the strategic and operational context of businesses. Your knowledge is contextualised, and your employability enhanced, through our strong emphasis on gaining practical, real-world business experience. This is via the use of case study-led teaching and work experience opportunities with globally recognised companies, like IBM, Disney and Siemens.

We build your business awareness and help you develop the personal and professional skills required to become highly employable in a range of business environments. We also place a strong emphasis on helping you develop practical skills for your future career. Throughout your degree, you will develop skills in areas such as teamworking and leadership, negotiation, entrepreneurship, ethics, strategic management, numeracy and IT.

**Stage 1:** This year gives you firm foundations in the key areas of business. You are introduced to the core management knowledge and skills that are essential for running a successful business including: accounting and finance; management and organisation; global business environments; business emergence and growth; academic and professional skills development; and quantitative techniques necessary for modern business decision-making.

**Stage 2:** You develop your understanding of effective leadership and management through compulsory modules including: operations strategy and management; people management and workplaces; research skills; and understanding work and organisations. You also have a range of optional modules to choose from.

### Work placement/study abroad year (optional):

Spend a year between Stages 2 and 3 on a 12-month placement working in the UK or overseas, or studying abroad at one of our partner universities.

Our current placement students are in roles such as business support intern, finance assistant, trainee assistant buyer, analyst, and continuous improvement technician, working on the following projects:

- mapping out business development opportunities and market alignment planning at IBM
- working within Mars' manufacturing environment to support activities to increase efficiencies
- providing relationship management and support to the Private Wealth Management division at Goldman Sachs

**Stage 3:** You have the opportunity to complete a dissertation exploring a business-related issue that interests you, or undertaking a consultancy project where you work with a business client, researching their organisation and presenting recommendations to improve their business.

You continue with advanced modules in management, such as strategy and organisations, and contemporary issues in international business management. You also choose from a range of specialist topics and have the flexibility (with approval from the Degree Programme Director) to replace one of the optional topics with advanced business Spanish or a career development module.



## International Business Management

BSc Honours | N121 | 3 years

With Placement

BSc Honours | N120 | 4 years | 

Develop the knowledge and skills needed to manage the challenges involved in operating across borders.

If you want to pursue a career in international, multinational or global companies, this degree is designed for you. Organisations throughout the world recognise the importance of operating in a global market, while adapting to the local cultural context. This degree will prepare you for the diverse and challenging world of international business.

### Your language pathways

Developing proficiency in a modern language is integral to this degree. There are several pathways through the degree, depending on your language level and needs.

- **Studying a modern language at post-A Level or equivalent:** you can study Chinese, French, German or Spanish at post-A Level or equivalent. This four-year degree includes a year abroad in a country where your chosen language of study is spoken, either studying at an international partner university or on a work placement. In either case, the focus is on developing your language skills and experiencing another culture.
- **Studying a modern language from beginners' level:** you can study Chinese, French, German or Spanish from beginners' level. This is a three-year degree, but may be extended to four years either by taking a study abroad year or a work placement (subject to visa restrictions).
- **Studying advanced business English:** this route is available to non-native English speakers, who have IELTS 6.5 on entry. This is a three-year degree, but may be extended to four years either by taking a study abroad year or a work placement (subject to visa restrictions).

**Stage 1:** You begin with foundation modules in business management, covering core topics including: accounting and finance; management and organisation; international business; and quantitative methods. You also develop skills in your chosen language.

**Stage 2:** You continue to develop your knowledge and understanding of core management topics such as: international finance and the financial market; operations management; global perspectives on managing people and organisations; strategic marketing; and cross-cultural communication. You continue with your chosen language as well as exploring the culture, history and society of the country whose language you have chosen to learn. Students who are non-native English speakers will study communication skills.

**Work placement year/study abroad year:** You spend your year abroad in a country where your chosen language is spoken, studying at a partner university, undertaking a work placement, or possibly a combination of the two.

**Stage 3:** You study compulsory modules in advanced global strategy, international business diplomacy, and contemporary issues in international business management. You continue to develop your chosen language. You also apply the knowledge and skills gained throughout your degree to an international business management topic of your choice for your dissertation, or you can study international entrepreneurship and undertake an independent research project. This will further develop your independent learning and research skills. If you are a non-native English speaker, you will study working in intercultural settings.

*'I enjoy being taught by very professional, enthusiastic and culturally diverse lecturers, and the fact we have some autonomy in choosing the modules we want to study.'*

Ang, Business Management BA Honours

# Chemical Engineering

Degree	UCAS	Entrance requirements
<b>Chemical Engineering BEng Honours</b>	H810	<b>A Level: AAA</b> Including Mathematics and Chemistry, excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. Grade B or 6 in GCSE Physics or Dual Award Science required if Physics not offered at A Level. <b>International Baccalaureate: 37 points</b> With Mathematics and Chemistry at Higher Level grade 6 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.
<b>Chemical Engineering MEng Honours</b>	H813	<b>A Level: AAA</b> Including Mathematics and Chemistry and at least one of Further Mathematics, Physics, IT, or Biology, excluding General Studies or Critical Thinking. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. Grade B or 6 in GCSE Physics or Dual Award Science required if Physics not offered at A Level. <b>International Baccalaureate: 37 points</b> With Mathematics and Chemistry at Higher Level grade 6 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.
<b>Chemical Engineering with Bioprocess Engineering MEng Honours</b>	H831	
<b>Chemical Engineering with Industry MEng Honours</b>	H815	
<b>Chemical Engineering with Process Control MEng Honours</b>	H830	
<b>Chemical Engineering with Sustainable Engineering MEng Honours</b>	HH82	
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a> <b>Foundation Year:</b> if you don't have the right mathematics and/or science qualifications for direct entry, you will be considered for a foundation year. See page 119 for details. <b>Pre-Entry Mathematics Course:</b> if you don't have the required mathematics qualifications, you may be invited to take our Pre-Entry Mathematics Course to develop the mathematical skills needed to study your degree. Find out more online in the Entry Requirements tab of your chosen degree. <b>International students:</b> we offer a Chemical Engineering BEng Honours in Singapore <a href="http://www.ncl.ac.uk/singapore/study">www.ncl.ac.uk/singapore/study</a> <b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222–223.		

**YOU MAY ALSO BE INTERESTED IN:** Chemistry; Civil Engineering; Electrical and Electronic Engineering; Engineering Foundation Programmes; Marine Technology; Mechanical Engineering.



## Why Study With Us?

Chemical engineers are responsible for the chemical and biochemical transformations behind thousands of everyday products, from the manufacture of medicines to freeze-drying food.

✔ **Professional accreditation\***: all our degrees are professionally accredited by the Institution of Chemical Engineers (IChemE) and the Institute of Measurement and Control. IChemE accreditation means employers will recognise the quality of your degree because it meets high professional standards. It also means both our BEng and MEng degrees provide a pathway to becoming a chartered engineer (CEng). This is one of the most recognised international engineering qualifications.

Our four-year 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 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. Transfer from the BEng to one of our MEng degrees is possible. See What You Will Study, opposite.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement**: on all of our degrees, you can gain work experience and develop valuable skills that will make you stand out in the graduate marketplace. On our accredited Chemical Engineering with Industry degree (see page 76) you can take an integrated, assessed year in industry. This will give you valuable work experience without extending the length of your degree. You will be assessed through an industrial project, which counts towards your final degree mark.

If your chosen degree doesn't have an integrated work placement year, you can still spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

✈ **Study abroad**: with the agreement of the Degree Programme Director, you can broaden your academic experience by taking part in a study abroad exchange. Because our degrees are professionally accredited, we will need to find an appropriate academic programme in your preferred country that meets the requirements of the accrediting body. Therefore, study abroad requests are considered on a case-by-case basis. Previous students have studied in Singapore, Australia and Canada. See page 16 for more information.

**Take advantage of our strong industry links**: with over 100 companies providing opportunities for work experience, guest lectures, plant visits and sponsorship.

**Enjoy flexibility and choice**: our degrees share the same early curriculum, meaning you have flexibility to transfer between them if your interests change (see What You Will Study, opposite).

**Enjoy state-of-the-art facilities**: including an interactive video teaching system in our labs. We'll teach you the theory and practical application of chemical engineering, including how to use industrial apparatus in our pilot plant.

**Learn professional software**: get experience with industry-standard chemical engineering software in our dedicated computing suites.

**DTUS sponsorship**: our degrees are approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)

## What You Will Study

All of our chemical engineering degrees (except Chemical Engineering with Industry) cover the same topics for the first three years.

- ▶ Using case study-led teaching, you're introduced to the core engineering, mathematics and science principles underpinning the design of a chemical engineering process plant – everything from controlling chemical reaction rates to using specialist computer software to solve chemical and process engineering problems
- ▶ Working with liquids, solids and gases, we teach you how to perform, measure, analyse and manipulate chemical reactions using equipment in our state-of-the-art laboratories
- ▶ We introduce you to basic types of mass, heat and momentum transfer, as well as the design criteria for heat exchangers and other plant equipment used in process plants
- ▶ Consultants from industry deliver classes on current industrial practice as well as on issues surrounding safety management and environmental protection



In the third year (Stage 3), you bring all this knowledge together to design a process plant in teams. This tests your knowledge of process selection, conceptual design, equipment design, process safety and sustainability, and economic analysis.

In the fourth year (Stage 4), MEng students complete an individual design project and substantial research project. You can complete this at the University, in industry, or at one of our partner universities in Europe, Australia, Singapore or beyond.

Transfer between BEng and MEng degrees is possible up to the end of Stage 3 should your interests change as your knowledge develops. However, transfers are subject to minimum grade requirements. To stay on an MEng degree or transfer onto one, 60% average at the end of each Stage is required. For Chemical Engineering with Industry MEng Honours, 65% is required.

▶ **Continued overleaf.**

*'I think the teaching quality on my course is very good – I've learnt some new techniques and approaches to tackling more complex problems. The lecturers are very friendly and will answer any questions that I have.'*

Harry, Chemical Engineering MEng Honours

## Your Future Career

Employment sectors for our graduates include: pharmaceutical; chemical; energy; oil and gas; water; the environment; biotechnology; and food and drink.

Our degrees open up opportunities in careers ranging from groundbreaking research and consultancy to business and management. Past graduates are also working internationally: building and running plants in East Asia; operating water treatment processes in the Gulf; and developing catalysts in Chicago.

STUDY A  
PROFESSIONALLY  
ACCREDITED  
DEGREE



## Chemical Engineering

BEng Honours | H810 | 3 years | ✓ 📱 🌐

MEng Honours | H813 | 4 years | ✓ 📱 🌐

These degrees provide our broadest range of topics from across the full spectrum of chemical engineering.

You will develop a wide range of knowledge and skills across all of our specialist areas, allowing you to study at the cutting edge of our expertise, while keeping your career options open.

You receive a thorough introduction to core chemical engineering skills and knowledge for the first three years of your degree (see What You Will Study, page 75).

In the third-year group plant design project you take on a design team role, working on a comprehensive chemical engineering design problem. Themes for the design project can be quite diverse, but previous projects have included topics such as brewery design, pharmaceutical manufacture and chemical processing.

In Stage 4, MEng students choose topics in advanced chemical engineering from across our specialisms: bioprocessing; intensified processing; process control; and sustainable engineering. You also complete an individual design project and a substantial research project.

## Chemical Engineering with Bioprocess Engineering

MEng Honours | H831 | 4 years | ✓ 📱 🌐

Bioprocess engineering focuses on the role of living organisms in the manufacturing process, such as fermentation to produce alcohol and enzymes in detergents that allow washing at low temperatures. Bioprocessing is also key to several growth industries, such as the production of biofuels and new medicines.

This degree responds to industry demand by focusing on the use of bioreactors and their effective design, modelling, monitoring and control. We also make excellent use of our state-of-the-art BioLab, which provides access to a range of small-scale unit operations and the latest equipment and instrumentation used in bioprocessing systems.

You receive a thorough introduction to core chemical engineering skills and knowledge for the first three years of your degree (see What You Will Study, page 75).

In the third-year group plant design project you take on the role of a bioprocess engineer within your design team.

In the fourth year, your study focuses on bioprocessing and bioreactor engineering through topics such as biotechnology (covering the practical application of gene modification), cell and molecular biology (introducing key methods used in research in this area) and gene technology.

## Chemical Engineering with Industry

MEng Honours | H815 | 4 years | ✓ 📱 🌐

This degree follows the same study programme as our other chemical engineering degrees for the first two years (see What You Will Study, page 75).

You spend your third year on a fully accredited, paid work placement in a chemical/process engineering company, giving you the chance to gain valuable workplace skills and experience. You'll work in a team of professional engineers and scientists to apply your knowledge to an industrial problem defined by your host company. We have strong links with over 100 companies, including P&G, MSD and ExxonMobil.

Your technical skills are formally assessed through an industrial design project. You also complete selected chemical engineering topics by distance learning. Placement selection decisions ultimately rest with the company, but you will have plenty of support to help you find potential employers and guide you through the application process.

You return to the University for your final year to study a selection of topics that are tailored to take full advantage of the technical experience gained on your placement. You also complete a substantial research project and enhanced design project that accounts for half of your study time throughout the year.

## Chemical Engineering with Process Control

MEng Honours | H830 | 4 years | ✓ 📱 🌐

Control engineers apply engineering principles to design, build and manage sophisticated computer-based instrumentation and control systems that help companies maintain a competitive edge. This degree focuses on the feedback mechanisms that make sure your chemical plant is operating as it should.

It explores modern control theory and process control methodologies, producing graduates with a broad base of chemical engineering knowledge and the specialist mathematics and computer skills required for careers in modern control engineering.

You receive a thorough introduction to core chemical engineering skills and knowledge for the first three years of your degree (see What You Will Study, page 75).

In the third-year group plant design project you take on the role of process control engineer within your team, designing a way of monitoring the plant's performance.

In your fourth year, we introduce you to the state-of-the-art in industrial modern control theory. This covers robust, digital, model-based and non-linear control. You also complete an individual design project and substantial research project.

*'If you like the idea of applying maths and physics to solve real world problems, want a challenge and are prepared to work hard, then this is the course for you. You need to be prepared to work in groups, enjoy working with numbers and on computers.'*

Ellie, Chemical Engineering with Sustainable Engineering MEng Honours

## Chemical Engineering with Sustainable Engineering

MEng Honours | HH82 | 4 years | ✓ 📱 🌐

This degree focuses on the need for sustainable engineering solutions that strike a balance between environmental, social and economic considerations. It is designed to help you understand the environmental impact of industrial activities. You also learn the importance of using cleaner processes from the start of an engineering project rather than remedial action at the end of it.

You receive a thorough introduction to core chemical engineering skills and knowledge for the first three years of your degree (see What You Will Study, page 75).

In the third-year group plant design project you take on the role of sustainable engineer within your team, responsible for reducing the environmental impact of the plant design.

In your fourth year, you study specialist topics such as sustainable processing, energy and materials technology, and cleaner design tools and techniques. These help you understand how chemical engineers can make a difference to the environment by creating manufacturing solutions that reduce emissions, energy consumption, chemical use and waste. You also complete an individual design project and substantial research project.





Degree	UCAS	Entrance requirements
<b>Chemistry BSc Honours</b>	F100	<b>A Level: ABB</b>
With Industrial Training Year BSc Honours	F102	Including Chemistry. No additional science required but Mathematics, Physics, Biology preferred. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics grade B or 6 required if not offered at a higher level.
<b>Chemistry with Medicinal Chemistry BSc Honours</b>	F151	<b>International Baccalaureate: 34 points</b>
With Industrial Training Year BSc Honours	F122	Including Higher Level Chemistry grade 6 or above. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
<b>Chemistry MChem Honours</b>	F103	<b>A Level: AAB</b>
With Industrial Training Year MChem Honours	F106	Including Chemistry. No additional science required but Mathematics, Physics, Biology preferred. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics grade B or 6 required if not offered at a higher level.
With Study Abroad MChem Honours	F107	<b>International Baccalaureate: 35 points</b>
<b>Chemistry with Medicinal Chemistry MChem Honours</b>	F123	With Higher Level Chemistry at grade 6 or above. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
With Industrial Training Year MChem Honours	F124	
With Study Abroad MChem Honours	F156	

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Biology and Zoology; Biomedical and Biomolecular Sciences; Chemical Engineering; Dentistry; Medicine; Pharmacy

## Your Future Career

Most of our graduates work in scientific research-related roles or technical occupations. The main employers are those in the chemical and related industries such as: pharmaceuticals; agrochemicals; petrochemicals; toiletries; plastics; and polymers.

Other key sectors include the food and drink industry, utilities and energy research, the health and medical sector, and research organisations and agencies. Some of our graduates enter very different career areas such as: finance; marketing, sales and advertising; sport; art and design; and social and welfare professions.

Our Chemistry with Medicinal Chemistry degrees are particularly suited to careers in the pharmaceutical industry, hospital laboratories and firms specialising in clinical diagnosis. If you want to pursue chemistry research in industry or academia, a good chemistry degree (usually an MChem) is essential, often followed by a research degree (PhD).

**91%  
OVERALL  
STUDENT  
SATISFACTION  
SCORE**

National Student Survey 2017

## Why Study With Us?

Chemistry at Newcastle offers you some of the highest-specification teaching laboratories in the country in which to begin your scientific career.

### League table ranking:

► 91% overall student satisfaction score – National Student Survey 2017

✓ **Professional accreditation\***: our degrees are accredited by the Royal Society of Chemistry (RSC) and fully meet the academic criteria for Chartered Chemist (CChem).

Students who are planning for a career in chemical research in industry or academia, or who may wish to study for a higher qualification such as a PhD, are encouraged to apply for an MChem degree.

Our MChem degrees last four years and provide a more in-depth study of chemistry than our BSc degrees. They also include a research project in the fourth year that gives you experience of working in a research environment.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with an industrial training year:** students on our degrees with Industrial Training Year apply to spend a paid year in industry in the UK or abroad.

It's a great opportunity to gain first-hand experience of working in the chemical industry and, if you impress your host company, could result in a job offer on graduation. It also develops valuable skills such as teamwork, communication, and time and project management that will appeal to a broad range of employers.

We give you lots of support to find a suitable placement. This includes helping to write your CV to send out to our extensive list of industrial contacts, such as Akzo Nobel, AstraZeneca, BP, GlaxoSmithKline, Lubrizol and P&G, who have previously hosted our placement students.

MChem Industrial Training Years count directly towards your final degree mark. You complete a research project and distance learning modules in advanced organic and inorganic chemistry during your placement.

BSc Industrial Training Years are not formally assessed. You write a report on your placement and discuss your experience with your placement supervisor and academic contact.

All placement students retain their student status during their industrial training year.

✈️ **Study abroad:** students on our Study Abroad MChem Honours degrees spend their third year studying at a partner university in Europe, North America or Asia.

The year abroad is assessed on the basis of a research project you complete while abroad and also by distance learning modules in advanced organic and inorganic chemistry. It gives you the opportunity to experience another country and culture for a year, while furthering your knowledge of chemistry. See page 16 for more information.

**Gain knowledge about the world of work:** meet business representatives during our Professional Awareness Day. We also organise one-to-one meetings between final-year students and academics to discuss your future.

**Enjoy outstanding facilities:** learn in our state-of-the-art working environment, including £3.9 million chemistry research laboratories, modern teaching laboratories and specialist IT facilities.

**Get kitted out for your studies:** receive a starter pack worth about £200, which includes textbooks, calculator, lab coat, goggles, a molecular modelling kit and access to a world-leading scientific drawing programme.

**Gain research experience:** through a summer placement opportunity in chemistry.

**Hear speakers from industry:** enjoy a weekly seminar programme with talks from academic and industrial speakers.

**Be rewarded:** we offer prizes at each Stage to reward excellence in academic performance.

**Find out where your interests lie:** the first two years of our degrees are broadly the same, providing you with a solid foundation in chemistry and allowing you to explore the subject. Transfer is possible at any Stage (see What You Will Study, page 80). Study chemistry by itself or combine it with medicinal chemistry for a degree highly valued in the pharmaceutical and medical fields.



## What You Will Study

**Stage 1:** All of our chemistry degrees share the same first year, building on your existing knowledge of chemistry with modules covering: general chemistry; organic chemistry; physical chemistry; inorganic chemistry; biological and medicinal chemistry; and analytical chemistry.

This high level of shared content gives you time to explore the subject and find out where your interests lie. You can transfer between our degrees, at any stage, if your interests change and you meet our requirements.

**Stage 2:** You continue to build on your knowledge of: organic chemistry; physical chemistry; inorganic chemistry; and structural chemistry.

You take a group assignment module to create a learning pack on a given topic, teaching you highly transferable skills – from giving presentations, to networking and working with a group of your peers to deliver a range of tasks. This prepares you to be an agile graduate, ready for your chosen career path.

We also introduce you to bioactive natural products from plant and marine organisms and their role in naturally derived drugs.

Chemistry students take a module introducing a series of topics in contemporary inorganic, organic and physical chemistry. Medicinal Chemistry students study the principles of drug design.

*'Teaching is of a really high standard; the academic staff are great and very open to answering any questions you have. They often have open office hours where you can go and find them or you can email them and they're happy to help.'*

Julie, Chemistry BSc Honours

**Stage 3:** You study advanced organic and inorganic chemistry, both of which include an advanced laboratory course.

Chemistry students continue with physical chemistry and all students undertake an independent research literature project. Medicinal Chemistry students study modules that reflect the specialist nature of the course, including: cancer chemotherapy; practical medicinal chemistry; toxicology; and enzymology.

**Stage 4 (MChem only):** You carry out an extended research project in a research laboratory in an area related to your interests. You also choose from a range of advanced optional modules including:

- ▶ further organic, inorganic and physical chemistry
- ▶ selectivity and stereocontrol in organic synthesis
- ▶ chemical structure and dynamics
- ▶ applications of physical chemistry in energy, environmental, and biological research
- ▶ catalyst application and design
- ▶ advanced methods in drug discovery



## Chemistry

BSc Honours | F100 | 3 years | ✓

With Industrial Training Year

BSc Honours | F102 | 4 years | ✓ ☑

MChem Honours | F103 | 4 years | ✓

With Industrial Training Year

MChem Honours | F106 | 4 years | ✓ ☑

With Study Abroad

MChem Honours | F107 | 4 years | ✓ ✈

All of our chemistry degrees share the same first year (Stage 1) and a high level of content in the second year (Stage 2), providing you with a solid foundation in core chemistry topics. See What You Will Study, opposite.

These degrees provide you with a thorough understanding of all the main areas of chemistry. Organic, inorganic and physical chemistry form the backbone of your study at each Stage.

Transferable graduate skills such as problem solving, teamworking, presentation and communication, are fully integrated in each degree programme. You also undertake a high proportion of laboratory work to develop the skills required by professional chemists.

MChem students have the opportunity to broaden and deepen their understanding of chemistry with an advanced year of study in Stage 4.

The Industrial Training Year option provides you with the training and work experience in your third year to make you more competitive in the job market after graduation, see page 79.

The Study Abroad option gives you the opportunity to spend your third year studying chemistry at one of our partner universities in Europe, North America or Asia. See [Study abroad](#), page 79.

## Chemistry with Medicinal Chemistry

BSc Honours | F151 | 3 years | ✓

With Industrial Training Year

BSc Honours | F122 | 4 years | ✓ ☑

MChem Honours | F123 | 4 years | ✓

With Industrial Training Year

MChem Honours | F124 | 4 years | ✓ ☑

With Study Abroad

MChem Honours | F156 | 4 years | ✓ ✈

All of our chemistry degrees share the same first year (Stage 1) and a high level of content in the second year (Stage 2), providing you with a solid foundation in core chemistry topics. See What You Will Study, opposite.

These degrees provide a thorough understanding of organic, inorganic and physical chemistry. However, they also explore, in depth, those aspects of chemistry that are important to the pharmaceutical industry. Medicinal Chemistry topics include the principles of drug design, enzymology, toxicology and chemotherapy.

MChem students have the opportunity to broaden and deepen their understanding of chemistry and medicinal chemistry with an advanced year of study in Stage 4.

The Industrial Training Year option provides you with the training and work experience in your third year to make you more competitive in the job market after graduation, see page 79.

The Study Abroad option gives you the opportunity to spend your third year studying chemistry at one of our partner universities in Europe, North America or Asia. See [Study abroad](#), page 79.

*'I enjoy the large amount of time we get to spend in the laboratory. I've enjoyed almost all of my modules, especially the ones where I can relate what we are doing in labs to the theory we are learning in lectures.'*

Helen, Chemistry BSc Honours



# Civil Engineering

Degree	UCAS	Entrance requirements
<b>Civil Engineering BEng Honours</b>	H200	<b>A Level: AAB</b>
With Year in Industry BEng Honours	H205	Including Mathematics but excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Physics or Dual Award Science (minimum grade B or 6) required if Physics not offered at A or AS Level.
<b>Civil and Structural Engineering BEng Honours</b>	H210	<b>International Baccalaureate: 35 points</b>
With Year in Industry BEng Honours	H206	With Mathematics at Higher Level grade 5 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.
<b>Civil and Surveying Engineering BEng Honours</b>	H202	<b>A Level: AAA</b>
With Year in Industry BEng Honours	H208	Including Mathematics but excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Physics or Dual Award Science (minimum grade B or 6) required if not offered at A or AS Level.
<b>Civil Engineering MEng Honours</b>	H290	<b>International Baccalaureate: 37 points</b>
With Year in Industry MEng Honours	H295	With Mathematics at Higher Level grade 6 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.
<b>Civil and Structural Engineering MEng Honours</b>	H242	
With Year in Industry MEng Honours	H296	
<b>Civil and Surveying Engineering MEng Honours</b>	H292	
With Year in Industry MEng Honours	H298	

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Foundation Year:** if you don't have the right mathematics and/or science qualifications for direct entry, you will be considered for a foundation year. See page 119 for details.

**Pre-Entry Mathematics Course:** if you don't have the required mathematics qualifications, you may be invited to take our Pre-Entry Mathematics Course to develop the mathematical skills needed to study your degree. Find out more online in the Entry Requirements tab of your chosen degree.

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Chemical Engineering; Earth Science; Electrical and Electronic Engineering; Engineering Foundation Programmes; Marine Technology; Mathematics and Statistics; Mechanical Engineering; Surveying and Mapping Science

## Your Future Career

Our graduates work for organisations such as: Atkins; Arup; AECOM; CH2M Hill; Mott MacDonald; MWH; Balfour Beatty; and Transport for London.

As well as civil engineering careers, our graduates work in the mining, nuclear, oil and gas, and renewable energy sectors. Some graduates undertake advanced study (eg PhD or MSc) in civil engineering or related subjects.

Our degrees also equip you for careers in areas such as management, administration, banking and insurance, with organisations such as HSBC and IBM. Some graduates take up commissions in the armed forces.



## Why Study With Us?

Civil engineers are creative problem solvers, responsible for the infrastructure that underpins our quality of life.

### League table ranking:

- ▶ top 20 in the UK – *The Complete University Guide 2018*
- ▶ 2nd in the UK for research power – *Research Fortnight 2014* Power Ratings
- ▶ top 175 – Engineering and Technology category – *Times Higher Education* World University Rankings by Subject 2018
- ▶ top 200 – Civil and Structural Engineering category – QS World University Rankings by Subject 2017

✓ **Professional accreditation\***: our civil engineering degrees are accredited by the Joint Board of Moderators (JBM), which is made up of the following four professional bodies:

- ▶ Institution of Civil Engineers
- ▶ Institution of Structural Engineers
- ▶ Chartered Institution of Highways and Transportation
- ▶ Institute of Highway Engineers

The JBM works with universities to ensure their degree programmes develop professional engineers who will continue to provide a global contribution to sustainable, economic growth and ethical standards.

Our civil and surveying engineering degrees are accredited by the Chartered Institution of Civil Engineering Surveyors (ICES) and the MEng degree is also accredited by the Royal Institution of Chartered Surveyors (RICS). This means you can be assured of graduating with a degree that meets the standards set by industry.

We offer two levels of accredited degree:

**MEng Honours, Accredited CEng (full)** – these degrees are accredited as fully meeting the academic requirement for registration as a chartered engineer (CEng).

**BEng Honours, Accredited CEng (partial)** – these degrees are accredited as fully meeting the academic requirement for registration as an incorporated engineer (IEng) and partially meeting the academic requirement for registration as a chartered engineer (CEng). A programme of accredited Further Learning will be required to complete the educational base for CEng. See [www.jbm.org.uk](http://www.jbm.org.uk) for further information and details of Further Learning programmes for CEng.

Transfer between a BEng and MEng degree is possible up to the end of the second year if you achieve the appropriate academic standard.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a year in industry:** between Stages 2 and 3, spend a year on a paid industrial placement, working on real-life civil engineering projects.

You'll gain first-hand experience of working in industry, putting your learning into practice, and testing and developing your professional expertise. You'll also develop valuable workplace skills such as teamwork, communication and project management. If you impress your host company, it could even result in a job offer on graduation.

Securing a placement will be your first step in the transition from study to employment and there is support to help you identify opportunities, write your CV and make applications. There is a dedicated tutor who is your help and support during this year away from campus.

✈️ **Study abroad:** on certain degrees you can broaden your academic experience by taking part in an optional study abroad exchange as a fully accredited part of your degree. We have partners in a range of countries including Hong Kong, Sweden, Singapore and the USA. Our study abroad options are taught in English so you don't need to know a second language. You can even complete a real engineering project overseas. See page 16 for more information.

**Study a design-intensive degree:** you'll complete large sustainable engineering design projects in Stages 1, 2 and 3.

▶ **Continued overleaf.**



**Enjoy close links with industry:** including site visits, guest lectures, placement and job opportunities, an industrial advisory panel that ensures our degrees are industrially relevant, and our ACCESS event where you meet and network with our industrial partners.

**Learn in state-of-the-art laboratory facilities:** independently rated 'excellent' by professional accreditors, for structures, geotechnics, surveying, hydraulics, environmental engineering and transport.

**Enjoy flexibility to pursue your interests:** through project work, module choices and a broad range of study pathways.

**Start your studies in the best possible way:** receive a starter pack that contains essential study resources and head out on a field course in your first week.

**Gain a new perspective on the world:** including how society can prepare for, and meet, challenges such as climate change and population growth. Develop core civil engineering knowledge in areas such as structures and transportation, water supply and sanitation.

**DTUS sponsorship:** our degrees are approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)

## What You Will Study

Designing sustainable solutions to infrastructure problems is at the heart of our degrees. In Stages 1, 2 and 3 you will undertake a large engineering design task where you will be expected to apply your skills and knowledge from all of your studies to solve a large and complex civil engineering problem.

From the core curriculum of civil engineering design, our courses are built around five different themes:

- ▶ **infrastructure** introduces you to the principles of structural and materials engineering that can be applied to the design and building of bridges, buildings and transport systems
- ▶ **modelling and informatics** develops the mathematical, analytical and computational skills you'll use in your design projects
- ▶ **environmental systems** explores our relationship with the environment around us, including water, land and air

▶ **human system demands and impacts** focuses on the challenges facing civil engineers, such as climate change, growing populations and scarce resources, as well as issues such as ethics and management

▶ **surveying** explores engineering surveying, GPS, aerial photography, 3D laser scanning, and the mapping and positioning techniques that underpin any infrastructure project

Each theme is studied in different proportions depending on which degree you choose. There are also different options depending on whether you study a BEng or MEng course.

**BEng students:** In your final (third) year, you participate in a residential interactive workshop away from Newcastle with leading researchers and industrial partners. Everyone works together to explore and identify novel ideas for research and/or design projects. You then develop and investigate an idea of your choosing before writing and submitting your work as a final-year dissertation.

**MEng students:** In your final (fourth) year, you study advanced modules that reflect your interests and chosen degree course. You also have a choice of modules that offers career-enhancing skills.

- ▶ **Global engineering** is an international design and build challenge that has seen students work in Borneo to design and build a water supply for a remote jungle village
- ▶ **Career development** allows students to benefit from our excellent links with industry and undertake a work placement
- ▶ **Business enterprise in science and engineering** explores how to set up and operate a business in the construction sector

In Stage 4, we teach all of our modules in week-long blocks, often alongside our MSc students and professional engineers from industry. This means you will work full time on a unit of study for one week, with the following week timetabled for independent study.

## Civil Engineering

BEng Honours | H200 | 3 years | ✓

With Year in Industry  
BEng Honours | H205 | 4 years | ✓ ☰

MEng Honours | H290 | 4 years | ✓ ✈

With Year in Industry  
MEng Honours | H295 | 5 years | ✓ ☰

**Stages 1 and 2:** You study a broad range of modules from across all five of our study themes (see What You Will Study, opposite). These are designed to give you a firm foundation in core civil engineering knowledge and skills. Our ACCESS event in Stage 2 will help you prepare for making course and career decisions.

**Year in Industry:** Between Stages 2 and 3, students on our Year in Industry degrees undertake a professional placement in the civil engineering sector, see page 83.

**Stage 3:** MEng and BEng students from across all of our courses work together on a large civil engineering design project, such as a major new transport scheme or master-planning a city-centre redevelopment. In the second half of the year, MEng students continue the design project and BEng students participate in the residential workshop.

**Stage 4 (MEng only):** You choose one of four specialisms, each with its own specialist laboratory and research-led teaching:

- ▶ **environmental engineering** explores the chemical and biological properties of air, land and water as they apply in processes such as wastewater treatment and contaminated land remediation
- ▶ **geotechnical engineering** focuses on the properties of earth materials that can be manipulated to create things on or in the ground, such as foundations, tunnels and dams
- ▶ **transport engineering** considers all aspects of transport schemes, from the design of highways to smartcard ticketing schemes like the Oyster Card, and the growing use of intelligent transport
- ▶ **water resources engineering** explores a variety of issues, such as groundwater, pollution studies, and the role of climate change in flooding

You also carry out a research project. Linked with an industrial partner, or based on our world-leading and internationally excellent research, project topics can include: developing flood defence schemes; testing new civil engineering materials; and working with charities in the developing world.

## Civil and Structural Engineering

BEng Honours | H210 | 3 years | ✓

With Year in Industry  
BEng Honours | H206 | 4 years | ✓ ☰

MEng Honours | H242 | 4 years | ✓ ✈

With Year in Industry  
MEng Honours | H296 | 5 years | ✓ ☰

These degrees are designed for students who wish to follow a career in structural engineering. While they do not prevent you from working in other areas of civil engineering, they specifically focus on the design of structures such as bridges and buildings. We have excellent facilities to support your studies, including large-scale laboratories for testing heavy structures, such as steel-reinforced concrete beams, and a shaking table for analysing the effect of earthquakes on structures.

**Stages 1 and 2:** You study a broad range of modules from across all five of our study themes (see What You Will Study, page 84). These give you a firm foundation in core civil engineering skills before you specialise in later Stages. Our ACCESS event in Stage 2 will help you prepare for making course and career decisions.

**Year in Industry:** Between Stages 2 and 3, students on our Year in Industry degrees undertake a professional placement in the civil engineering sector, see page 83.

**Stage 3:** Your study becomes more specialised, with topics that focus on structural design, such as architecture for structural engineers and structural analysis. MEng and BEng students from across all of our courses work together on a large civil engineering design project, such as a major new transport scheme or master-planning a city-centre redevelopment. In the second half of the year, MEng students continue the design project and BEng students participate in the residential workshop.

**Stage 4 (MEng only):** You advance your knowledge and skills with specialist topics such as: seismic-resistant design; the design of unique and unusual structures; structural reliability and analysis; and advanced mathematical modelling techniques. You also undertake an investigative research project, developing your research skills.



## Civil and Surveying Engineering

BEng Honours | H202 | 3 years | ✓

With Year in Industry

BEng Honours | H208 | 4 years | ✓

MEng Honours | H292 | 4 years | ✓

With Year in Industry

MEng Honours | H298 | 5 years | ✓

These degrees are designed for students who wish to follow a career in the engineering surveying profession, or in the broader civil engineering and surveying sectors. While they do not prevent you from working in other areas of civil engineering, they specifically focus on the surveying and measurement skills that ensure infrastructure is built as designed, in exactly the right position.

**Stages 1 and 2:** You study modules from the fundamental civil engineering themes of infrastructure, modelling and informatics, and surveying (see What You Will Study, page 84). Specialist modules from the surveying theme include a residential field course mapping a Lake District valley, digital surveying techniques, and 3D laser scanning. Our ACCESS event in Stage 2 will help you prepare for making course and career decisions.

*"The teaching quality on the course is brilliant. The lecturers are so passionate about their subjects and this comes across in their teaching. It's the perfect course for people who want to make an impact on the world."*

Chandan, Civil and Structural Engineering MEng Honours

**Year in Industry:** Between Stages 2 and 3, students on our Year in Industry degrees undertake a professional placement in the civil engineering sector, see page 83.

**Stage 3:** Your study becomes more specialised, with advanced study in surveying including co-ordinate systems, satellite positioning, and data analysis. BEng and MEng students from across all of our courses work together on a large civil engineering design project, such as a major new transport scheme or master-planning a city-centre redevelopment. In the second half of the year, MEng students continue the design project, and BEng students participate in the residential workshop.

**Stage 4 (MEng only):** You advance your knowledge and skills with specialist topics such as geographical information systems and applied surveying. You can choose additional study modules from a broad range of civil engineering topics.



# Classics and Ancient History

Degree	UCAS	Entrance requirements
<b>Ancient History BA Honours</b>	V110	<b>A Level: AAB–ABB</b> Excluding General Studies.
<b>Classical Studies BA Honours</b>	Q810	<b>International Baccalaureate: 32–35 points</b> Including three subjects at grade 5 or above at Higher Level.
<b>Classics BA Honours</b>	Q800	
<b>Classical Studies and English BA Honours</b>	QQ83	<b>A Level: AAB</b> Including English and excluding General Studies. <b>International Baccalaureate: 35 points</b> With English grade 6 at Higher Level.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)  
**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Ancient History and Archaeology; Archaeology; Combined Honours (Classics and Ancient History, plus up to two other subjects); History

## Why Study With Us?

Studying Classics and Ancient History at Newcastle allows you to explore the worlds of Ancient Greece and Rome from a variety of perspectives.

### League table ranking:

► 9th in the UK – *The Complete University Guide 2018*

**Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

**Study abroad:** you can take part in a study abroad exchange in Europe through the Erasmus+ scheme, particularly at the historic Italian University of Bologna. See page 16 for more information.

**Learn from leading experts:** our research expertise includes: Greek and Roman poetry and history writing; ancient speeches, music, philosophy and science; Minoan Crete; Roman Republican and Imperial history; classical influence in European literature and art; and encounters between the Greek world and neighbouring cultures such as Egypt and Persia.

**Develop professional research skills:** showcase skills that employers value through the Ancient History portfolio project and dissertation modules.

**Learn Greek or Latin:** learn from beginners' or advanced level with our nationally acclaimed 'Language in Action' classes. Quickly get to grips with classical literature in the original language, thanks to small class sizes and innovative teaching.

**See the classical world come to life:** enjoy extracurricular field trips that take advantage of the North East's rich history, including the nearby World Heritage Site of Hadrian's Wall, and the classically inspired Belsay and Wallington Halls.

**Access world-class treasures in the University museum:** the Great North Museum: Hancock on campus includes spectacular objects from Ancient Greece and Rome and a resource-rich specialist library. We also have our own dedicated classical library.

**Join a close-knit group of staff and students:** engage with the world of antiquity while developing skills for a broad range of careers.



## Ancient History

BA Honours | V110 | 3 years |  

This degree in Greek and Roman history focuses principally on the period from 776 BC to AD 480.

We place a strong emphasis on students engaging with different surviving forms of ancient evidence, including literary texts, inscriptions, and visual and archaeological material. You can combine this with the study of Greek or Latin language if you wish, even if you have no previous experience.

**Stage 1:** You study modules on Greek and Roman history, which develop your ability to analyse and interpret primary evidence. You take two modules on Greek and Roman literature, which develop your skills in interpreting texts. You choose your remaining modules from topics in Greek and Roman culture, Greek or Latin language, archaeology or history.

**Stage 2:** You study historiography, key historical periods and optional cultural topics. You begin work on your portfolio. This is an independent study project examining and analysing ancient materials to investigate a specific issue. It gives you the chance to conduct research to a professional standard by preparing a dossier of evidence from a broad range of sources.

**Stage 3:** You spend a third of your time completing your portfolio, which includes a dissertation. In addition, you choose advanced modules in subjects that have your special interest, from a menu of topics in ancient history and ancient culture, archaeology, and Latin and Greek languages.

## Classical Studies

BA Honours | Q810 | 3 years |  

This degree is aimed at students who want to study Greek and Roman culture in all its forms – literature, history, art, architecture, myth, religion, philosophy, science, medicine and the classical tradition. You can also study a classical language if you wish, even if you have no previous experience.


Staff research expertise allows us to offer several distinctive topics, including: Greek and Roman poetry; Greek and Roman music; ancient speeches; historiography; and the tragedies of classical Greece and Rome as the foundations of European drama. Students studying Greek art will enjoy the University's outstanding collections at the Great North Museum: Hancock.

**Stage 1:** Our modules cover Greek and Roman literature, art and architecture, philosophy, Greek and Latin languages, ancient history, and archaeology. They are designed to develop your critical abilities in handling primary evidence.

**Stages 2 and 3:** You undertake more intensive and advanced study of topics including: classical literature; material culture; thought; rhetoric; history and historiography; and classical influences on Western culture. Key modules also develop your research and writing skills.

A specially designed Stage 2 module trains you in techniques for independent research, as applied to major works of classical literature. This prepares you for Stage 3, where you work on a dissertation or two extended essays covering topics of special interest to you. You also take further optional modules in ancient culture, history or language.

## Classical Studies and English

BA Honours | QQ83 | 3 years |  

Roman and Greek literature and culture have profoundly influenced English novels, poetry, plays and films. This degree allows you to study the rich variety of texts written in English alongside the culture of the classical world, and explores the connections between the two. You can also study a classical language if you wish, even if you have no previous experience.

**Stage 1:** We introduce you to important texts and approaches to literature in English. Alongside this, you study aspects of Greek and Roman literature, culture, thought and history. You begin to explore the connections between classical and English literature in the exciting Transformations module. You are also introduced to major texts and aspects of culture that will inform your study of literature and film in later stages.

**Stages 2 and 3:** Our specially designed independent study modules are central to the later Stages of your degree. You continue to link the two sides of your degree by exploring aspects of classical influence in English literature. In Stage 3 this takes the form of an extended project on a topic reflecting your individual interests. Recent topics include 21st-century dramatisations of the Oedipus story, and the use of Homer's *Iliad* and *Odyssey* in films such as *Troy* and *O Brother, Where Art Thou?* You also choose from a range of topics covering: English literature from a wide variety of genres and periods; film; creative writing; classical literature; material culture; thought; history; historiography; and classical influences on Western culture.

You spend at least a third of your time on classical modules and a third on English literature. You can continue to study one of the classical languages, or even take one up in Stage 2.

## Classics

BA Honours | Q800 | 3 years |  

In this degree you focus on Greek and Latin languages and literature, as well as a variety of aspects of the classical world. Both Latin and Greek can be studied either from beginners' or advanced level to match your previous experience.

Much of your work will be based around the study of literature in the original language by major classical authors, while also developing and enhancing your linguistic and translation skills.

Each year, you spend one third of your time studying Latin and a third studying Greek, leading to a good command of both by the end of your degree. Language classes provide a thorough grounding in the essential knowledge and skills required to read Greek and Latin texts. Translation and textual study classes enable you to improve your fluency in reading, while developing skills of literary analysis.

You complement your language study by selecting from topics covering the literature, art, philosophy, history and archaeology of Greece and Rome. This equips you with a deep understanding of the context in which Greek and Latin texts were written. The flexibility of the degree means you can spend some of your time studying topics from classical studies, ancient history, archaeology or history, or another subject area should you wish to.

**Stage 1:** You study language modules in Greek and Latin at the appropriate level. You also choose from options such as ancient history, art and architecture, philosophy, and literature in translation.

**Stages 2 and 3:** You continue your language modules in Latin and Greek. You can also study, in depth, authors such as Virgil, Tacitus, Homer, Sophocles and Euripides, as well as less well-known authors. You continue to undertake translation, analysis and interpretation exercises in both Greek and Latin, using a selection of poetry and prose texts. In your optional modules you can choose topics such as ancient history, the history of ideas, the classical tradition, art and archaeology.

In Stage 3, you may also undertake a dissertation on a subject of your choice or a special study on topics related to one of your chosen modules.

## Your Future Career

Our graduates work in areas that include: academia, teaching and the arts; politics; local government; finance; tourism; and marketing.

Our 2016 Ancient History BA Honours graduates are working in roles such as: business development executive; international communications representative; and graduate recruitment officer.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Ancient History BA Honours leavers, within six months of graduating)





# Combined Honours

Degree	UCAS	Entrance requirements
Combined Honours BA Honours	Y001	<b>A Level: AAB</b> Specific subjects and grades may be required depending on the combination to be studied. See Subjects Available, page 92.  <b>International Baccalaureate: 34 points</b> Including at least two subjects at Higher Level grade 6 or above.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

## Your Future Career

Our graduates follow diverse and interesting career paths, depending on their subject combinations. Recent graduates have secured: creative careers, such as roles in media, editorial, PR and marketing; teaching and management positions; research roles; and positions in large international financial companies.

Our 2016 Combined Honours BA Honours graduates are working in roles such as: editorial assistant; French speaking credit controller; brand development executive; global HR systems analyst; and programme manager.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Combined Honours BA Honours leavers, within six months of graduating)



*'The course allows me to study exactly what I want, combining my two fields of interest.'*

**Isabel, Combined Honours (English Literature with Japanese) BA Honours**

## Why Study With Us?

If you enjoy the challenge of studying and mastering more than one subject, our Combined Honours degree has plenty to offer you.

### League table ranking:

- ▶ 96% overall student satisfaction score – National Student Survey 2017

**Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

**Study abroad:** you have the opportunity to take part in a study abroad exchange in Europe through the Erasmus+ scheme, or further afield through our non-EU exchange scheme. You don't have to be studying a language as part of your degree to take part in these schemes. See page 16 for more information.

### Choose from over 20 subjects to create a degree to suit you:

select complementary or unusual subject combinations to reflect your interests and try new subjects without previous experience.

**Our ethos:** we believe our students are partners, collaborating with staff to constantly enhance the degree and student experience. The opportunity exists to work with our staff to co-design your own modules. In the words of our students, our Combined Honours ethos is:

- ▶ flexibility – creating your own degree
- ▶ autonomy – making your own decisions
- ▶ being part of a vibrant community
- ▶ offering a diverse range of extracurricular opportunities
- ▶ interdisciplinary – synthesising multiple perspectives

**Experiential learning:** take specialist career and graduate development modules, which recognise and reward you for extracurricular roles and experience. You can also choose from a wide range of community engagement or independent projects.

**Develop interdisciplinary skills:** we'll introduce you to interdisciplinary thinking and you can combine your subjects through projects that span your subject areas.

**Enjoy a strong sense of community:** the Combined Honours Centre includes a student-run Combined Honours Society and a student common room for study and social activities.

**Subject combinations:** most students are able to follow their first choice of subjects, however, a few subject combinations may be limited by timetabling, staff availability or student numbers. A few of the subject combinations possible through Combined Honours may already exist – see our Degree index on pages 228–230. We may advise you to transfer your application to one of these named degrees if that appears a better match to your subject interests.

**Studying a language:** language subjects available through Combined Honours provide modules both for beginners and those with previous language experience (Portuguese available from beginners' level only).

If you study a language beyond Stage 1, you spend a compulsory year abroad between Stages 2 and 3 to develop and practise your language skills. This extends your degree to four years.

You can study a maximum of two language subjects together in Stage 1. Only one of these languages can be at beginners' level.

It is not normally possible to study Chinese and Japanese together.



## Combined Honours

BA Honours | Y001 | 3 or 4 years |  

Combined Honours lets you create a tailor-made degree by selecting your own subject combinations from a choice of over 20 (see right).

In Stage 1, you study two or three subjects in equal proportions.

From Stage 2 onwards, you can choose how you want to combine your subjects:

- ▶ study three subjects in equal proportion
- ▶ study two subjects in equal proportion (the joint route)
- ▶ study two subjects, spending two thirds of your time on one subject and one third on the other (the major/minor route)

In your final year, you have the option to undertake a final-year project that focuses on one of your subjects or spans more than one.

Your degree certificate will reference the subjects you studied in Stages 2 and 3, allowing employers to identify your areas of expertise, for example BA Combined Honours in English Literature and French.

*'Combined Honours offers flexibility that suits me perfectly. I get to choose most of my modules which means that I study something that I really enjoy. As a Combined Honours student, I'm really grateful that I'm supported by the wonderful Combined Honours staff.'*

Jesslyn, Combined Honours (Business and Media and Communication) BA Honours

## Subjects Available

**Archaeology:** spans prehistoric, Roman and early medieval archaeology, with the opportunity to undertake practical fieldwork.

**Business:** covers modules in accounting, economics, marketing and management, delivered by Newcastle University Business School. Grade B in Mathematics and English at GCSE (or equivalent) normally required.

**Chinese:** concentrates on the practical study of modern standard Chinese (Mandarin), including study at a university in China between Stages 2 and 3. The emphasis is on communication skills and no prior knowledge of Chinese is assumed. See [Studying a language](#), page 91.

**Classics and Ancient History:** covers modules in ancient history, classical world culture, Greek and Latin. No prior knowledge is required and all sources of Greek and Latin are studied in translation.

**Education:** engage with important questions such as: what is meant by 'education' and what is its purpose? What role is played by sociocultural factors? What might the future of teaching and learning look like?

**English Linguistic Studies:** provides an introduction to language study with particular reference to the structure and history of the English language.

**English Literature:** offers a choice across a wide range of periods, genres and authors from post-Renaissance English literature onwards. Grade A in English Literature at A Level (or equivalent) normally required.

**Film Studies/Film Practices:** offers an introduction to American, British and European film, involving some consideration of the history and theory of the medium. Available as a joint or minor subject only (not a major).

**French:** involves the practical study of the French language plus a selection of modules from one or more of the following areas: French literature; modern history; film; and linguistics. Available at two levels – Level A for beginners (no previous experience required) or Level B for those with grade B in A Level French (or equivalent). See [Studying a language](#), page 91.

**Geography:** provides a broad training in human and physical geography. A good grade in Geography at A Level and grade B in Mathematics at GCSE (or equivalent) normally required.

**German:** combines all forms of language work with the study of literature from 1770 to the present day, in addition to options in: medieval and modern literature; politics; history; and film. Available at two levels – Level A for beginners (no previous experience required) or Level B for those with grade B in A Level German (or equivalent). See [Studying a language](#), on page 91.

**History:** covers a wide range of options in British, European, Russian and American history, ranging from the early medieval period to the present day. A Level History (or equivalent) is normally required.

**History of Art:** covers painting and sculpture from the Renaissance to the 20th century and the study of art-historical theory. An A Level in one of the following is desirable: Art; Art History; History; English; or a language.

**Japanese:** concentrates on the practical study of Japanese language, including study at a university in Japan between Stages 2 and 3. The emphasis is on communication skills and no prior knowledge of Japanese is assumed. See [Studying a language](#), on page 91.

**Media and Communication:** explore mass media, communication theory and practice, and culture. Study how information is created, managed, promoted, circulated and consumed across contemporary society in a range of cultural industries.

*'I would recommend the freedom Combined Honours allows, the solid support network offered by the staff and their unerring support, no matter what happens. I have been amazed at the flexibility of the programme, module choice and pastoral support.'*

Ben, Combined Honours (Politics and Sociology) BA Honours

**Music:** covers a wide range of modules including: the history of music; compositional techniques; analysis; acoustics; and electro-acoustic music. A Level Music (or equivalent) preferred. Students are also strongly advised to gain competence in music theory to at least Associated Board Grade V level before starting Music within Combined Honours.

**Philosophy:** provides a choice of modules in knowledge and cosmology, and cultural manifestations of rationality, designed to bridge the gap between the sciences and humanities.

**Politics:** offers a wide range of options spanning the major regions of the world, covering all forms of government and analysing fundamental political ideas.

**Portuguese:** combines all forms of language work with the study of literature and/or history of Portuguese-speaking countries, including Brazil. Only available from beginners' level. Available as a joint or minor subject only (not a major). See [Studying a language](#), on page 91.

**Sociology:** covers a range of aspects of sociology, anthropology, social policy and social welfare.

**Spanish and Latin American Studies:** combines all forms of language work with the study of the film, literature and history of Spanish-speaking countries, including those in South America. Available at two levels – Level A for beginners (no previous experience required) or Level B for those with grade B in A Level Spanish (or equivalent). See [Studying a language](#), on page 91.





# Computer Science

Degree	UCAS	Entrance requirements
<b>Computer Science BSc Honours</b>	G400	<b>A Level: AAB–ABB/AAC</b> Excluding General Studies and Critical Thinking. GCSE Mathematics grade B or 6 required.
With Industrial Placement BSc Honours	G401	
<b>Computer Science (Bio-Computing) BSc Honours</b>	I520	<b>International Baccalaureate: 34–35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
With Industrial Placement BSc Honours	I521	
<b>Computer Science (Game Engineering) BSc Honours</b>	G450	<b>International Baccalaureate: 34–35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
With Industrial Placement BSc Honours	G451	
<b>Computer Science (Human-Computer Interaction) BSc Honours</b>	I140	<b>International Baccalaureate: 34–35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
With Industrial Placement BSc Honours	I141	
<b>Computer Science (Mobile and Distributed Systems) BSc Honours</b>	G420	<b>International Baccalaureate: 34–35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
With Industrial Placement BSc Honours	G421	
<b>Computer Science (Security and Resilience) BSc Honours</b>	I190	<b>International Baccalaureate: 34–35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
With Industrial Placement BSc Honours	I191	
<b>Computer Science (Software Engineering) BSc Honours</b>	G600	<b>International Baccalaureate: 34–35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
With Industrial Placement BSc Honours	G603	
<b>Computer Science MComp Honours</b>	G405	<b>A Level: AAB</b> Excluding General Studies and Critical Thinking. GCSE Mathematics grade B or 6 required.
With Industrial Placement MComp Honours	I100	
With Study Abroad MComp Honours	G406	<b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
<b>Computer Science (Bio-Computing) MComp Honours</b>	I522	
With Industrial Placement MComp Honours	I524	<b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
<b>Computer Science (Game Engineering) MComp Honours</b>	I610	
With Industrial Placement MComp Honours	I612	<b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
<b>Computer Science (Mobile and Distributed Systems) MComp Honours</b>	I120	
With Industrial Placement MComp Honours	I122	<b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
<b>Computer Science (Security and Resilience) MComp Honours</b>	I192	
With Industrial Placement MComp Honours	I194	

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Electrical and Electronic Engineering; Geographic Information Science; Mapping and Geospatial Data Science; Mechanical Engineering; Surveying and Mapping Science

## Why Study With Us?

Specialise in an area of computer science like computer game engineering or build your own broad-based degree, choosing topics that match your interests from across our specialisms.

### League table ranking:

- 98th – Computer Science category – *Times Higher Education* World University Rankings by Subject 2018

✓ **Professional accreditation\***: we seek British Computer Society (BCS) accreditation for our degrees so you can be assured that you will graduate with a degree that meets the standard set by the IT industry. BCS is the Chartered Institute for IT. Studying a BCS-accredited degree provides the foundation for a chartered IT professional, engineer or scientist.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

🎒 **Boost your CV with an industrial placement:** our degrees are available with an accredited paid work placement, extending your degree length by a year. Your placement provides you with the experience of seeking and securing a job, as well as practical experience and industry contacts that will benefit your academic study and long-term career. You will receive plenty of support to help you find potential employers and guide you through the application process.

Previous students have found placements with organisations such as: NHS Business Services Authority; Goldman Sachs; Metropolitan Police; Accenture; IBM; Network Rail; Nissan; and GSK. We assess your placement on the basis of a short report and presentation – you must pass this assessment to graduate with ‘Industrial Placement’ in your degree title.

**Take your knowledge further:** we offer computer science degrees at two levels:

- our Bachelor of Science (BSc) degrees last three years, or four years with an industrial placement
- our Master of Computing (MComp) degrees last four years, or five years with an industrial placement. The final year is taught at Master's level. The undergraduate fee still applies for the final year, so you can gain an advanced qualification without needing to apply for funding for a separate postgraduate degree

✈️ **Study abroad:** You have the opportunity to take part in a study abroad exchange as part of your degree – look for the ✈️ symbol. See page 16 for more information.

**Enjoy research-led teaching:** degrees are based on our internationally recognised research, equipping you with cutting-edge advanced knowledge.

**Explore the subject and identify your interests:** try all our specialisms in your first two years and find out where your interests lie (transfer between degrees is available up to the end of your second year).

**Showcase your skills:** industry-sponsored student prizes let you showcase your achievements to potential employers.

**Learn in specialist IT facilities open 24/7:** our new £58m state-of-the-art building includes a cyber physical systems laboratory, decision theatre for data visualisation and 315 PCs with a Raspberry Pi3 on every desk.

**DTUS sponsorship:** many of our degrees are approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)

## Your Future Career

An increasing number of employers require digital skills, meaning our graduates are highly sought after. They move into bespoke software development roles in software houses and computer manufacturers and also into corporate organisations that use computers on a larger scale, such as banking, insurance and manufacturing companies and public sector institutions. Our placement students and graduates are regularly recruited by companies such as: Nissan; Waterstones; Accenture; IBM; P&G; Deloitte; Microsoft; Sage; DWP; and GCHQ.

**98TH FOR  
COMPUTER  
SCIENCE**

*Times Higher Education  
World University Rankings  
by Subject 2018*



## What You Will Study

Regardless of which of our computer science degrees you apply for, all students study the same modules for the first two years (Stages 1 and 2). This gives you time to explore the subject and decide whether you want to specialise in a particular area or continue with a broad-based degree.

**Stage 1:** We introduce you to the fundamentals of computer science, with an emphasis on developing your skills in program design and implementation.

You gain experience in Java programming and develop a broad view of hardware and software architectures. You develop an appreciation of what it is to be a professional working in the IT industry and develop your problem-solving skills.

**Stage 2:** You study modules in software engineering, algorithm design and the fundamental principles that govern the operation of the internet. We introduce you to requirements analysis and databases, and the formal specification of software systems. You also work in a team to engineer a substantial software product, developing practical teamworking skills.

In later Stages you carry out an individual project and study modules that match your choice of degree specialism.

Please note: the advanced nature of our MComp degrees means that progression is subject to you achieving the appropriate academic standard in Stages 2 and 3. Students who do not meet the standard will be transferred to the equivalent BSc degree.



## Computer Science

BSc Honours | G400 | 3 years | ✓

With Industrial Placement

BSc Honours | G401 | 4 years | ✓

MComp Honours | G405 | 4 years | ✓

With Industrial Placement

MComp Honours | I100 | 5 years | ✓

With Study Abroad

MComp Honours | G406 | 4 years | ✓

All Computer Science students receive the same general introduction to computer science for the first two years (Stages 1 and 2), giving you time to see where your interests lie. See What You Will Study, left. These degrees maintain a broad overview of all of our specialisms throughout the programme.

You choose topics from across our specialist areas in later Stages, equipping you with a broad base of knowledge and keeping your career options open. You also complete a project and dissertation in an area of interest.

In Stage 4, MComp students study topics from our Advanced Computer Science MSc. A challenging project also accounts for a quarter of your time, giving you the chance to develop your individual research skills under the guidance of our leading researchers.

If you are studying our Computer Science with Study Abroad MComp, you spend Stage 3 at one of our English-speaking partner universities abroad as part of an approved exchange programme. During this year you earn academic credits which count directly towards your final degree mark.

If you are interested in one of the Industrial Placement degrees, see page 95 for more information about the work placement year.

*'Lecturers are very friendly and offer concise explanations that really help provide a bigger picture to the learning content. It's very easy to get along with lecturers and their input helps you consider things you may previously have ignored.'*

**Robi, Computer Science with Industrial Placement BSc Honours**

## Computer Science (Bio-Computing)

BSc Honours | I520 | 3 years

With Industrial Placement

BSc Honours | I521 | 4 years |

MComp Honours | I522 | 4 years

With Industrial Placement

MComp Honours | I524 | 5 years |

Bio-computing is a new, exciting area of science, blending technologies from computing, mathematics and statistics to manage and manipulate large sets of biological data. Drug development, medicine, cancer research, neuroscience, large-scale data analytics and robotics are just some of the many areas in which bio-computing is poised to make a massive impact.

This degree responds to the rising demand for skilled bio-computing specialists. You develop an understanding of how to design, develop and implement biologically inspired algorithms to analyse large-volume data. You also learn how to design and develop databases and algorithms to collect, store, integrate and interpret biological information.

All Computer Science students receive the same general introduction to computing science for the first two years (Stages 1 and 2), giving you time to see where your interests lie before you specialise later in your degree. See What You Will Study, opposite.

In Stage 3, you study specialist topics in the evolution of complex systems, website construction and management, bio-computing and bio-algorithms, alongside a range of optional modules.

In Stage 4, MComp students study topics from our MSc degrees in Bioinformatics, Computational Systems Biology, Computational Neuroscience and Neuroinformatics and Synthetic Biology. A challenging research project also accounts for a quarter of your time, giving you the chance to develop your individual research skills under the guidance of our leading researchers.

See page 95 for more information about the work placement (for Industrial Placement students).

## Computer Science (Game Engineering)

BSc Honours | G450 | 3 years | ✓

With Industrial Placement

BSc Honours | G451 | 4 years | ✓

MComp Honours | I610 | 4 years | ✓

With Industrial Placement

MComp Honours | I612 | 5 years | ✓

These degrees focus on the design, development and implementation of software that drives computer games (rather than the artistic element of games development).

You learn to design, develop and implement computer graphics software and applications on a variety of architectures including games consoles, graphic workstations and advanced 3D reality environments. You also learn to exploit such software and hardware in entertainment, engineering, design and scientific visualisation.

The North East of England has emerged as a hub for games development over the past few years, making it an exciting place to kick-start your career in the industry.

All Computer Science students receive the same general introduction to computer science for the first two years (Stages 1 and 2), giving you time to see where your interests lie before you specialise later in your degree. See What You Will Study, opposite.

In Stage 3, you study specialist topics such as computer games programming, graphical representation, and the latest artificial intelligence techniques involved in making the gaming experience as realistic as possible, for example, making sure cars corner as they would in real life.

In Stage 4, MComp students study topics from our Computer Game Engineering MSc. A challenging research project also accounts for a quarter of your time, giving you the chance to develop your individual research skills under the guidance of our leading researchers.

See page 95 for more information about the work placement (for Industrial Placement students).



## Computer Science (Human–Computer Interaction)

BSc Honours | I140 | 3 years | ✓

With Industrial Placement

BSc Honours | I141 | 4 years | ✓ 

Human–computer interaction explores how people engage with the computers they use, and how computer systems can be designed to enable successful interaction with technology.

These degrees focus on the fundamental techniques used in modern software engineering. You develop your knowledge and understanding of the architectural concepts underpinning computer and networking hardware platforms.

You learn to apply relevant theory to the solution of practical problems and to the analysis of existing algorithms and techniques. You will be able to recommend techniques and algorithms appropriate to specific circumstances in the areas of fundamental systems and major applications. You'll also be able to appreciate, develop and evaluate new algorithms, techniques and other developments within the computing field.

In addition, you develop knowledge and skills related to the design, development and evaluation of interactive digital technologies and systems.

All Computer Science students receive the same general introduction to computer science for the first two years (Stages 1 and 2), giving you time to see where your interests lie before specialising in Stage 3. See What You Will Study, page 96.

In Stage 3, you study specialist topics such as: an introduction to human–computer interaction, which introduces the principles of user-centred design and of relevant interface evaluation techniques; mobile computer systems development; advanced interaction design; and graphical user interfaces.

See page 95 for more information about the work placement (for Industrial Placement students).

## Computer Science (Mobile and Distributed Systems)

BSc Honours | G420 | 3 years | ✓

With Industrial Placement

BSc Honours | G421 | 4 years | ✓ 

MComp Honours | I120 | 4 years | ✓

With Industrial Placement

MComp Honours | I122 | 5 years | ✓ 

Distributed systems involves multiple computers processing data and communicating the results to each other, such as in electronic banking or online gaming, where the users are geographically separated.

You learn to design, build and integrate advanced networked computer systems. Applications include areas such as mobile and wireless communications, the financial and health sectors, and business-critical enterprise applications involving multiple businesses and outsourcing.

All Computer Science students receive the same general introduction to computer science for the first two years (Stages 1 and 2), giving you time to see where your interests lie before you specialise later in your degree. See What You Will Study, page 96.

In Stage 3, you study specialist topics in distributed systems, mobile computer systems development, internet technology, and system and network technology. You also study a range of optional modules.

In Stage 4, MComp students study topics from our Cloud Computing MSc. A challenging research project also accounts for a quarter of your time, giving you the chance to develop your individual research skills under the guidance of our leading researchers.

See page 95 for more information about the work placement (for Industrial Placement students).

*'Newcastle has great facilities for Computer Science students, including a brand new building where we have both lectures and practicals. The lecturers are always easy to talk to and easy to reach. My experience has been amazing so far.'*

Ainhoa, Computer Science  
(Software Engineering) BSc Honours

## Computer Science (Security and Resilience)

BSc Honours | I190 | 3 years | ✓

With Industrial Placement

BSc Honours | I191 | 4 years | ✓ 

MComp Honours | I192 | 4 years | ✓

With Industrial Placement

MComp Honours | I194 | 5 years | ✓ 

This degree equips you with specialist knowledge and skills related to the development of dependable software systems.

You learn about the issues and challenges surrounding security mechanisms for computing, software verification techniques and tools, cryptography and cryptographic protocols. You'll be well placed for employment in technical positions in software houses and with companies designing and deploying dependable software in safety-critical industry sectors.

All Computer Science students receive the same general introduction to computer science for the first two years (Stages 1 and 2), giving you time to see where your interests lie before you specialise later in your degree. See What You Will Study, page 96.

In Stage 3, you study specialist topics in system and network security, software verification technology, cryptographies, and reliability and fault tolerance.

In Stage 4, MComp students study topics from our Computer Security and Resilience MSc. A challenging research project also accounts for a quarter of your time, giving you the chance to develop your individual research skills under the guidance of our leading researchers.

See page 95 for more information about the work placement (for Industrial Placement students).

*'The teaching quality on my course is outstanding – each lecturer puts time and effort into answering questions. In practicals, lecturers get to know you, which makes it so much easier to participate and fully engage with the modules.'*

Alex, Computer Science (Game Engineering  
with Industrial Placement) MComp Honours

## Computer Science (Software Engineering)

BSc Honours | G600 | 3 years | ✓

With Industrial Placement

BSc Honours | G603 | 4 years | ✓ 

Reliable software is fundamental to almost all of our use of technology, from the embedded systems that make a washing machine work, to the flight controllers on a passenger jet. Working alongside programmers who have in-depth knowledge of writing code, software engineers understand and oversee the development of these systems, requiring strong computer science, project management and problem-solving skills.

All Computer Science students receive the same general introduction to computer science for the first two years (Stages 1 and 2), giving you time to see where your interests lie before specialising in Stage 3. See What You Will Study, page 96.

In Stage 3, a range of specialist topics covers the skills required for managing large-scale software projects. You develop the practical engineering skills that you need to accurately capture requirements, such as structuring software applications, understanding programming languages, real-time programming and software testing technologies. You also complete an individual project and dissertation, which requires you to research and plan a solution to a real-world software engineering problem.

See page 95 for more information about the work placement (for Industrial Placement students).





# Dentistry

Degree	UCAS	Entrance requirements
<b>Dental Surgery BDS Honours</b>	A206	<b>A Level: AAA</b> Including Chemistry and Biology. General Studies and Critical Thinking are not accepted. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element.  <b>International Baccalaureate: 37 points</b> With Chemistry and Biology at grade 6 or above at Higher Level.
<b>Oral and Dental Health Sciences BSc Honours</b>	A207	<b>A Level: ABB</b> Including Biology. General Studies and Critical Thinking are not accepted. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element.  <b>International Baccalaureate: 34 points</b> Including Biology at Higher Level grade 5 or above.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)  
 Other equivalent qualifications may be considered. Additional requirements apply, see opposite.  
**Graduate entry:** see online for information about graduate entry to these degrees: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees). BSc degrees will be looked at on a case-by-case basis, must contain Biology and Chemistry as a significant percentage of the degree and must be at 2.1 Honours standard or higher.  
**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Biomedical and Biomolecular Sciences; Chemistry; Medicine

## Your Future Career

Once graduates of our Dental Surgery BDS degree have qualified, and subject to registration with the GDC, there are a number of different careers open to you. Everybody needs to undergo a period of vocational training, whatever branch of dentistry they initially take up. Dentistry is a fairly flexible career and selecting one particular branch does not mean that you cannot venture into others later on in your career.

Successful graduates from our Oral and Dental Health Sciences degree, subject to registration with the GDC, are eligible to begin working as a dental hygienist therapist. Areas where our dental hygienist therapists have found employment include: general dental practice; industry; community dental services; hospital dental services; and the armed forces.



## Why Study With Us?

We offer some of the most modern and best equipped facilities in the country in which to begin your dental education and prepare for a career as a dentist or dental hygienist therapist.

### League table ranking:

- ▶ 3rd in the UK – *The Times/Sunday Times Good University Guide 2018* and *The Complete University Guide 2018*
- ▶ 3rd in the UK for student satisfaction (98% overall satisfaction score) – National Student Survey 2017
- ▶ 32nd – Dentistry category – QS World University Rankings by Subject 2017
- ▶ top 25% in the UK for world-class research – Research Excellence Framework 2014
- ▶ top 125 – Clinical, Pre-clinical and Health category – *Times Higher Education* World University Rankings by Subject 2018

✓ **Professional accreditation\***: our BDS degree is professionally accredited by the General Dental Council (GDC), which means it meets the standards set by the dental regulator.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

### Learn from enthusiastic and committed staff:

including holders of national teaching fellowships and distinguished scientist awards.

### Study clinical skills in state-of-the-art facilities:

train on phantom heads with plastic and natural teeth, with support from our full-time clinical teaching staff and dental nurses in our high-tech Clinical Simulation Unit.

*'It's such a privilege to be taught by academics who have published papers and really know what they're talking about. It always fascinates me when textbooks I come across while studying are written by researchers who have taught us the previous day.'*

Grace, Dental Surgery BDS Honours

**Gain experience in a full range of dental procedures:** in clinics run by specialists in oral and maxillofacial surgery, oral medicine, paediatric dentistry, orthodontics and restorative dentistry.

**Receive high levels of support:** we offer close interaction with approachable teaching staff in a friendly atmosphere, and support from a personal tutor and student mentor.

**Join a vibrant student community:** our highly active student society, DentSoc, runs a packed programme of events, bringing together students from all years.

✈ **Broaden your horizons:** BDS and BSc students can undertake elective study opportunities abroad. See page 16 for more information. BDS students may also have the opportunity to undertake an intercalated degree.

**Benefit from fully integrated teaching:** with plenty of support to progress from clinical simulation to real patient care and into the dental professions.

## Additional Admissions Information

### All Students

#### Disclosure and Barring Service (DBS) check

Both of our degrees are professional clinical programmes where you provide care for patients. All students, as part of the process of ensuring students are 'fit to practice', undergo an enhanced disclosure check. This type of disclosure is designed to check the background of individuals who will have a high degree of contact with children or vulnerable adults. Newcastle's School of Dental Sciences requires that this check is carried out and we reserve the right to withdraw or discontinue your studies on receipt of an unsatisfactory disclosure.

▶ **Continued overleaf.**





### Health requirements for admissions and continuing practice

We have an overriding duty of care to the public with whom students come into close contact. All students are required to comply with the Department of Health's guidance on health clearance for healthcare workers. Early clinical contact means that students will be asked to provide proof of their immunisation status by completing an Occupational Health Questionnaire on entry. Immunity against the following is required: polio; tetanus; varicella (chicken pox); diphtheria; measles; mumps; rubella; and TB. Newcastle University follows the Dental School Council protocol on blood-borne viruses. Early in the course students will be required to be screened for hepatitis B, hepatitis C and HIV. All aspects of a student's medical record will be bound by the same duty of confidentiality as for any doctor-patient interaction and informed by the same ethical guidance. Students commencing the programme will be immunised against hepatitis B by our Occupational Health provider; the cost will be covered by the School.

### Occupational health

All applicants who take up an offer from Newcastle University are required to complete an NHS occupational health questionnaire. From the information provided, the Occupational Health Service will assess the applicant's immunisation status and students will be required to fulfil any stipulated requirements identified from this assessment. Any required immunisations will be provided by our Occupational Health Service. In certain circumstances, it may also be necessary for applicants to undergo an Occupational Health Assessment with an NHS Occupational Health Consultant in the Newcastle Hospitals Trust before we are able to confirm their offer of a place.

This assessment is designed to help us ensure that applicants are able to undertake the rigours of either programme, especially with respect to working with patients in the clinical setting, and meet its outcomes in line with the statutory requirements of the General Dental Council. It also enables us to ensure that we provide any reasonable support necessary.

### Academic achievement

Once the academic screening criteria have been met, academic achievement is not considered further in subsequent parts of the application process, ie, additional A Levels or A\* results do not give further advantage.

### Interview

Candidates will be considered for interview on the basis of their application form. Students are not accepted without an interview.

### BDS Students

In addition to the information on page 101 and left, please also note the following:

#### UKCAT

All applicants are required to sit the UK Clinical Aptitude Test (UKCAT) in the year of application. See [www.ukcat.ac.uk](http://www.ukcat.ac.uk) for further information.

#### UCAS admissions procedure

You are permitted a maximum of four choices on the UCAS form for Dentistry. The deadline for applications is 15 October. Candidates who are considered, on the basis of their application form, to be particularly promising, are interviewed.

#### Work experience

Applicants must undertake a period of relevant work experience by the time they submit their UCAS application. Visit the School website for further details or if you are having problems arranging work experience.

#### Resits and qualifications

We would normally expect applicants to have achieved their A Levels (or equivalent) on their first attempt. Those who wish to think about applying with resit grades should read our Admissions Document at: [www.ncl.ac.uk/undergraduate/degrees/a206/entryrequirements](http://www.ncl.ac.uk/undergraduate/degrees/a206/entryrequirements)

We do not consider applications from candidates who have previously commenced a dental degree at another institution and failed to progress for any reason.

### BSc Students

In addition to the information on page 101 and left, please also note the following:

The deadline for applications via UCAS is 15 January.

You will be expected to be familiar with the role of the dental hygienist and dental therapist within the dental team in the United Kingdom. Applicants must undertake two weeks' work experience, preferably in a General Dental Practice and particularly shadowing a dental hygienist or therapist prior to submitting their UCAS application.

We do not consider applications from candidates who have previously commenced a dental degree at another institution and failed to progress for any reason.

## Dental Surgery

BDS Honours | A206 | 5 years |  

Dentistry today involves the prevention and treatment of a wide range of diseases of the mouth – ranging from tooth decay to oral cancer. This degree is designed to develop the skills required to provide for the complete oral health of patients, and entitles graduates to practise dentistry anywhere in the UK and in many other countries.

Clinical dental practice occupies an increasingly large part of your time as you progress through the course. We place great emphasis on the prevention of dental disease as well as on treatment. The teaching of important theoretical aspects of dentistry continues at each Stage, covering human structure, function, behaviour, clinical dental studies and related sciences.

**Stages 1 and 2:** You spend the first two years studying the basic biomedical sciences. This provides a basis for clinical work in later Stages. Topics include: an introduction to dentistry; molecules, cells and tissues; anatomy of the head and neck; cardiovascular and respiratory systems; oral environment; dental tissues; nutrition and diet; dental materials science; and interpersonal skills.

You see patients in clinics in the Dental Hospital while shadowing a senior student in your first year, but the teaching of clinical techniques increases markedly towards the end of the second year. You start learning procedures such as simple fillings and root treatments, using phantom heads with natural teeth, in preparation for taking responsibility for your own patients early in the third year.

**Stages 3, 4 and 5:** We introduce you to clinical training in the Dental Hospital, which is based in the same building as our School of Dental Sciences. You start managing your own patients by providing simple treatment under close supervision.

You learn how to prevent disease, plan treatment, treat dental decay and place fillings, undertake root treatments, treat gum disease and make dentures. You also learn how to extract teeth and even undertake simple surgery. We teach you how to use radiographs (X-rays) safely, to administer local anaesthetics, and how to deal with problems of cross-infection.

Initially the teaching of the different clinical disciplines is kept separate, but as the course progresses your cases will become increasingly complex and demand greater integration between the various skills.

Courses in pathology and microbiology in the third year give you an initial grounding in disease processes. You also have lectures and further practical courses in areas such as: radiology; preventive dentistry and public health; periodontology; crown and bridgework; advanced endodontics; gerodontology; and oral medicine.

By the end of Stage 4, you will be spending approximately half of your time on patient care and clinical dental practice, with supporting clinical-related teaching. An optional elective period at the end of Stage 4 gives you the opportunity to organise a few weeks away to study dentistry outside Newcastle. In recent years this has taken students all over the world.

In the fourth and fifth years you are exposed to advanced techniques such as orthodontics, dental implants and intravenous sedation. Your clinical commitments occupy much of your time, especially in the later years, but the teaching of important theoretical aspects of dentistry continues.

**Intercalated study:** After completion of Stages 2 or 4, you can take a year out from your dental studies and gain an additional degree by undertaking a supervised research project in an area that particularly interests you. After completing the extra year you resume your dental studies. Current intercalation opportunities include:

- ▶ joining the third year of any of our BSc degrees in biomedical and biomolecular sciences to gain a BSc Honours degree (see page 64)
- ▶ undertaking our one-year Medical and Molecular Biosciences MRes programme after Stage 4 (to gain an MRes qualification)



## Oral and Dental Health Sciences

BSc Honours | A207 | 3 years | 

This degree covers both the practical and theoretical aspects of dental hygiene and therapy. As a hygienist therapist, you work independently on patients and in close liaison with the dental surgeon. Over the course you will learn, through a combination of lectures and practical sessions, the knowledge and skills to become a caring, competent and skilful dental hygienist therapist.

A large part of your time is spent on practical work, initially using a phantom head with natural teeth. After this, you have the chance to work with members of the dental team and other health professionals to treat patients at Newcastle Dental Hospital and other hospitals and clinics in the area.

**Stage 1:** In first year you study basic biomedical sciences, providing a foundation for clinical work in later Stages. Topics include: aetiology; physiology; pathology and presentation of oral disease; dental, oral, and craniofacial anatomy; behavioural science and communication; basic pharmacology; and dental materials science.

You will also cover study skills, evidence-based practice, critical appraisal of research, infection transmission and control, professionalism and ethics, health and safety, and medico-legal considerations. You will begin to learn clinical skills during term 3, in a simulated clinical environment using manikins.

*'The teaching quality on the programme is world-class. Our lecturers, clinicians and professors are all leaders in their respective fields. Their subject knowledge is immense and the amount of support they provide allows us to excel and become the best-quality professionals we can be.'*

Sunny, Dental Surgery BDS Honours

**Stage 2:** You will begin to develop your clinical practice, which begins with an intensive clinical introductory course and continues with clinical attachments to a variety of clinics within the Newcastle Dental Hospital. During the clinical attachments, you learn specific skills relating to patient assessment, such as clinical examination and history taking.

Running alongside the clinical attachments is lecture-based teaching in: human diseases and the management of medical emergencies; pharmacology; aspects of dental health education, health promotion and disease prevention education; diet and nutrition; clinical investigations; treatment plan delivery; and professional standards and expectations.

**Stage 3:** You experience more varied clinical attachments, extending your experience and enhancing your clinical practice. Throughout the course your clinical progress will be monitored by review of your portfolio data, supported by reflective logs, self-review and personal development planning.



## Earth Science

Degree	UCAS	Entrance requirements
<b>Earth Science BSc Honours</b>	F641	<b>A Level: AAB-ABB</b> Including two from: Mathematics; Physics; Chemistry; Geology; Geography or Biology (or similar science-based A Level), but excluding General Studies and Critical Thinking. For Biology, Physics and Chemistry A Levels, we require a pass in the practical element. GCSE Mathematics (minimum grade B or 6) required if not offered at A or AS Level.
<b>With Year in Industry BSc Honours</b>	F646	
<b>Earth Science MEarthSci Honours</b>	F640	
<b>With Year in Industry MEarthSci Honours</b>	F645	
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a>		
<b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222-223.		


**YOU MAY ALSO BE INTERESTED IN:** Chemistry; Civil Engineering; Environmental and Rural Studies; Geographic Information Science; Geography; Surveying and Mapping Science



### Why Study With Us?

Earth science covers everything from the formation of rocks and minerals to the impact of human activity on the environment.

#### League table ranking:

- ▶ 92% overall student satisfaction score – National Student Survey 2017 (Physical Geography and Environmental Sciences category)
- ▶ top 200 – Earth and Marine Sciences category – QS World University Rankings by Subject 2017

 **Boost your CV with a year in industry:** between Stages 2 and 3, spend a year on a paid industrial placement, where you'll gain first-hand experience of working in industry. You'll put your learning into practice, and test and develop your professional expertise. You'll develop valuable workplace skills such as communication, teamwork and project management. Securing a placement will be your first step in the transition from study to employment and there is support to help you identify opportunities, write your CV and make job applications.

 **Study abroad:** You have the opportunity to take part in a study abroad exchange as part of your degree – look for the  symbol. See page 16 for more information.

**Develop in-demand skills for your future career:** gain career-enhancing skills in laboratory techniques, field skills, scientific analysis, remote sensing and global imaging systems.

**Gain practical experience:** build your field skills and experience through three residential field courses, both national and international, as well as field days to study the superb geology of northern England.

**Benefit from the Great North Museum: Hancock on campus:** the museum is home to more than 9,000 geological and mineralogical specimens. The Mining Institute, with one of the world's most comprehensive collections on mining engineering, is also nearby.

**Learn from international experts:** get to know some of the world's leading researchers and top professional Earth scientists on our teaching staff.

**Gain a whole-world view:** understand how the physical, chemical and biological world interacts so that you can make informed decisions on the consequences of human activities. Consider major challenges such as sustainable resources, energy and environmental protection.

**Study to an advanced level:** choose our MEarthSci degree and specialise in your final year in vocational or research skills.

**Gain an in-depth understanding of the Earth system:** through topics in geology, remote sensing, global imaging systems (GIS), geochemistry and geomicrobiology.

**DTUS sponsorship:** our degrees are approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)



## Earth Science

BSc Honours | F641 | 3 years | 

With Year in Industry

BSc Honours | F646 | 4 years |  

MEarthSci Honours | F640 | 4 years | 

With Year in Industry

MEarthSci Honours | F645 | 5 years |  

Our degrees cover three distinct areas of science: geology; geochemistry; and geomicrobiology. Understanding how these areas interact and combine to create the complexity of the Earth system is what makes Earth science such a fascinating and diverse area to study. You'll explore the Earth from the molecular level to the micro and macroscale, from the chemistry of a single element to the processes that shape the continents.

The practical skills you develop in geomatics – the fourth element of the degree – allow you to collect and analyse data about the world, preparing you for diverse and in-demand careers. Regular field days and residential field courses provide you with the opportunity to experience the Earth in action, develop practical skills and network with Earth science professionals.

**Stage 1:** The first year introduces you to the key concepts of geology, remote sensing, GIS and geochemistry, whilst demonstrating the relationships between these different areas. The lectures, practical classes and field days combine to provide a foundation from which you can develop your skills in subsequent years. The residential field course will enable you to put your newly developed skills into practice by exploring geology and modern mining operations in the Lake District.

**Stage 2:** The second year advances the skills and knowledge gained in the first year. We introduce you to further complexity in the Earth system and explore the impacts that human activity has on the environment. The residential field mapping course to the Isle of Arran provides training in how to identify and map geological formations in the field.

**Year in Industry:** Between Stages 2 and 3, students on our Year in Industry degrees undertake a professional placement in the Earth sciences sector – see page 105.

**Stage 3:** You are ready to explore advanced aspects of Earth science, taking advantage of our world-leading research. Specialist topics such as geomicrobiology and biogeochemistry will present new insights and opportunities. The third year also has an international residential field course that consolidates your learning with practical experience at an advanced level.

**Stage 4 (MEarthSci only):** In the final year, MEarthSci students will select one of five advanced specialisms from:

- ▶ environmental consultancy
- ▶ geotechnical/engineering geology
- ▶ petroleum geochemistry
- ▶ hydrogeology and water management
- ▶ environmental science

Studying alongside our MSc students, you undertake a major research project in your chosen specialism, which will enable you to develop your skills and knowledge to a professional level.

## Your Future Career

The geoscience industry has a shortage of graduates with the skills taught on this course. You'll be able to enter the global geology, geochemistry, GIS and environment industries. Potential career areas include: mining; oil; civil engineering; water supply; the environment and green energy.

**92% OVERALL  
STUDENT  
SATISFACTION  
SCORE**

National Student Survey 2017

# Economics

Degree	UCAS	Entrance requirements
<b>Economics BSc Honours</b>	L100	<b>A Level: AAB</b> Excluding General Studies. GCSE Mathematics grade A or 7 and English grade B or 6 required if not taken at A or AS Level. See online for further information on Business School preferred A Level subjects and GCSE (or equivalent) requirements.
<b>Economics and Business Management BA Honours</b>	LN12	
<b>Economics and Finance BSc Honours</b>	L161	<b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Accounting and Finance; Business Management; Marketing; Mathematics and Economics; Mathematics and Statistics; Politics and Economics

## Why Study With Us?


Get the best possible start to your career by combining your understanding of economics with key skills in numeracy, analysis, problem solving and communication.

### League table ranking:

- ▶ top 200 – Business and Economics category – *Times Higher Education* World University Rankings by Subject 2018

 **Professional accreditation\***: our Economics and Finance BSc Honours degree offers exemptions for some of the professional examinations of the Association of Chartered Certified Accountants (ACCA), Association of International Accountants (AIA), Chartered Institute of Management Accountants (CIMA) and Institute of Chartered Accountants in England and Wales (ICAEW).

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). You'll be supported by our dedicated Placement Officer, who works closely with the University's Careers Service to help you make the most of your skills and find the best opportunities. Find out more on pages 14–15.

 **Study abroad:** you can study at one of our partner universities in Europe between Stages 2 and 3, through the Erasmus+ scheme, and we also have partners outside of Europe. See page 16 for more information. Alternatively, if you are eligible (following consultation with your Programme Director) you can apply to spend Stage 2 studying Economics at the University of Groningen in the Netherlands. This is a fully integrated study abroad experience, taught in English, which counts directly towards your final degree mark. Places are available on a competitive basis.

**Address the economic problems facing society today:** our degrees are shaped by our research expertise. They cover a broad range of areas relevant to understanding the world around us, both theoretically and quantitatively, which form the foundation of modern economics.

**Develop expertise and contacts to excel in your career:** we host a Career Development Week every year so that you can meet potential employers and explore possible careers.

**DTUS sponsorship:** our Economics and Business Management (LN12) degree is approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)



## Economics

BSc Honours | L100 | 3 years |  

Develop the quantitative skills valued by employers, underpinned by real-world relevance. This degree equips you with an understanding of economic issues in modern society, and of the global and national settings in which economic activities take place. Teaching focuses on the fundamental concepts, analytical tools and quantitative techniques that are essential to understand modern economics. You will also be able to identify problems, predict outcomes and evaluate policies.

**Stage 1:** You will be introduced to the main economic issues that confront the British, European and world economies, as well as core economic topics within micro- and macroeconomics. We will also introduce you to key mathematical and statistical techniques used in economic analysis. You will develop a variety of IT and quantitative skills, which will be of use both within and beyond your degree.

**Stage 2:** You build on the knowledge and skills from Stage 1 with modules in macroeconomics, microeconomics and econometric analysis, giving you a deeper insight into the methods used by economists to analyse the workings of the modern economy. A module in applied economics engages you in group work and develops key skills, such as the ability to present and defend arguments on topical economic issues. Your remaining topics are optional and cover areas such as international economics, European economics and environmental economics.

**Work placement/study abroad (optional):** Spend a year between Stages 2 and 3 on a 12-month placement working in the UK or overseas, or studying abroad at one of our partner universities. Our current placement students are in roles such as consulting intern, associate, management trainee, customer analyst, and research assistant, working on the following projects:

- ▶ assisting with bespoke economic consultancy projects at Oxford Economics
- ▶ providing internal and external audit services to a variety of clients at PwC
- ▶ aiding innovation through research and application of solutions for clients at Deloitte

Alternatively, you might opt to gain work experience through summer internships, a path followed by many of our current students.

**Stage 3:** Two compulsory modules in advanced economic theory are complemented by a wide choice of optional topics including: labour economics; behavioural economics; advanced econometric analysis; public economics; financial economics; industrial economics; and health economics. You may also complete a dissertation (if eligible), giving you the chance to undertake original research and apply your economic knowledge to a topic of particular interest to you.

## Your Future Career

Our degrees offer an excellent base for entry into a variety of roles in both the public and private sectors including the Civil Service, the big four accounting firms (EY, Deloitte, KPMG, PwC) and other key local and national enterprises.

Our graduates work for globally recognised companies, including: HM Treasury; JP Morgan; KPMG; the Civil Service; Rolls-Royce Plc; Accenture; Deloitte; HSBC Bank; and the Royal Bank of Scotland.

Our 2016 Economics BSc Honours graduates are working in roles such as: account executive; analyst; audit associate; risk and process analyst; investment analyst; and economist.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Economics BSc Honours leavers, within six months of graduating)

**TOP 200 FOR  
BUSINESS AND  
ECONOMICS**

Times Higher Education  
World University Rankings  
by Subject 2018

## Economics and Business Management

BA Honours | LN12 | 3 years |  

Combine study of the key concepts, tools and techniques of economics with a thorough understanding of business. This degree will help you develop an understanding of economic issues in modern society, and of the global and national settings in which economic activities take place.

You will learn about key management practices and develop practical business skills through topics such as: business enterprise; global marketing; human resources; and technology management.

**Stage 1:** You commence your degree by studying the foundations and key disciplines of economics, business management and marketing, and gain an understanding of the key principles and practices for the modern manager. We also introduce you to a variety of IT and quantitative skills, which will be of use both within and beyond your degree, as well as mathematical and statistical techniques in economic analysis.

**Stage 2:** You gain an insight into the methods used to analyse the workings of the economy with modules in micro- and macroeconomics, and develop skills in economic modelling. You may also choose from a range of business management and marketing modules that cover topics such as human resource management, business enterprise, innovation and technology management, and global marketing.

**Work placement/study abroad (optional):** Spend a year between Stages 2 and 3 on a 12-month placement working in the UK or overseas, or studying abroad at one of our partner universities.

Our current placement students are in roles such as a private markets analyst, student analyst, tax compliance intern, international CRM analytics intern, and trade counter demand planner, working on the following projects:

- ▶ measuring the success of The Body Shop's loyalty card and analysing the impact of new product development launches
- ▶ managing the supply chain into and out of the trade counters, reviewing sales rates, and forecasting stock requirements at Screwfix
- ▶ sourcing due diligence on behalf of UBS's private market investments
- ▶ analysing government data, including the analysis of Organisation for Economic Co-operation and Development (OECD) indicators, and comparing the UK to other OECD countries for the NHS

Alternatively, you might opt to gain work experience through summer internships, a path followed by many of our current students.

**Stage 3:** You take compulsory modules in industrial economics and advanced microeconomic theory. Students who completed a placement write a placement-related project, which reflects on the business activities, markets and environments encountered during their placement. Non-placement students take a module in contemporary issues in international business management. You also choose from a range of optional modules.



*'Studying in this diverse intellectual environment, I've learnt how to adapt and communicate more effectively across cultures. I've developed so much during my time here, that I'm positive I will graduate with a wealth of experiences and insights.'*

**Simeon, Economics and Business Management BA Honours**

## Economics and Finance

BSc Honours | L161 | 3 years |   

Develop skills for a career in finance in the global marketplace. This degree will develop your understanding of economics and builds your knowledge of key topics in finance. You'll gain an appreciation of the interaction between the finance sector of the economy and the wider economic environment.

**Stage 1:** You develop your awareness and understanding of core economics topics within micro- and macroeconomics, alongside the principles of accounting and finance. We also introduce you to mathematical and statistical techniques used in these areas, and you develop a variety of IT and quantitative skills that will be of use both within and beyond your degree.

**Stage 2:** You deepen your insight into the methods used by economists to understand the workings of the modern economy, and into the relationship between government and the financial sector, with higher-level modules in microeconomics and macroeconomics. The compulsory econometrics module equips you with an ability to interpret and evaluate the results of applied research in economics and finance. You will also study topics in corporate finance that raise your awareness of financial issues in the business environment such as asset pricing and dividend policy. Your remaining topics are optional and cover areas such as international economics, European economics, financial and management accounting.

*'I don't think I have one favourite module, but I do have favourite professors. In fact, some of the modules I'm taking in Stages 2 and 3 were partially based on the professors teaching them.'*

Anne, Economics and Business Management BA Honours

**Work placement/study abroad (optional):** Spend a year between Stages 2 and 3 on a 12-month placement working in the UK or overseas, or studying abroad at one of our partner universities.

Our current placement students are in roles such as finance intern, finance analyst, business operations intern, and in tax compliant accounting, working on the following projects:

- ▶ preparing VAT packs for legal entities which operate within Romania and Germany at P&G
- ▶ producing a new mechanism for tracking internal investment projects internationally at AMEX
- ▶ tracking brand marketing expenses for consumer products at Johnson & Johnson

Alternatively, you might opt to gain work experience through summer internships, a path followed by many of our current students.

**Stage 3:** You take modules in advanced micro- and macroeconomic theory, as well as financial economics and international financial management. These develop your understanding of the workings of the financial markets and financial decision making, giving you the chance to undertake original research and apply your economic knowledge to a topic of particular interest to you. Your remaining modules are optional and cover a wide choice of financial and economics topics. You may also choose to complete a dissertation (if eligible), which gives you the opportunity to pursue a topic of original research.




# Education

Degree	UCAS	Entrance requirements
Education BA Honours	X390	<b>A Level: ABB–BBB</b> No specific subjects are required. <b>International Baccalaureate: 30–32 points</b> Including three subjects at grade 5 or above at Higher Level.
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a> <b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222–223.		

**YOU MAY ALSO BE INTERESTED IN:** Combined Honours (Education, plus up to two other subjects)

## Why Study With Us?

Our degree explores questions such as: what is meant by 'education' and what is its purpose? What form should it take and who benefits? What role is played by social or cultural factors? What might the future of teaching and learning look like?

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15. You can also gain experience through student tutoring, volunteering opportunities and 'learning from work' opportunities.

**Study a stimulating, interdisciplinary curriculum:** engage in rigorous academic study of education with a special emphasis on the philosophy, psychology, sociology and history of education, international development for education, education for social justice, and international perspectives on education.

**Enjoy enthusiastic teaching from expert staff:** learn from leading academics with international reputations and professional expertise as teachers in a variety of educational settings.

**Develop transferable skills:** including the opportunity in your first year to learn a foreign language.

**Benefit from small-group teaching:** our small course cohort provides opportunities for lively interaction and debate, enhancing the development of your knowledge and understanding.

## Your Future Career

This degree will provide you with the skills for work in a range of contexts, including: primary teaching (graduates would need to undertake a primary PGCE); public service; community and social work; education management; heritage, museum, theatre and library education; and information management (for example, e-learning).

You could also undertake postgraduate study in education, cross-cultural communication or international development here at Newcastle.

**STUDENT  
TUTORING AND  
VOLUNTEERING  
OPPORTUNITIES  
AVAILABLE**



## Education

BA Honours | X390 | 3 years | 

The study of education is essential to assess the opportunities and challenges that face humanity in the 21st century. At Newcastle, you will be encouraged to explore what is meant by education and how it has changed over time, including its central place in the foundation of modern societies.

You will be encouraged to critically examine what form education should take, who should decide, and who benefits from those decisions. You also examine how the media influences the portrayal of education and schooling.

You will learn about education globally and investigate the role of international development in supporting education in developing countries. You also explore and assess the scientific evidence contributing to our growing understanding of learning and teaching.

**Stage 1:** You are introduced to the contested nature of education and the different conceptual frameworks we will be using for explaining education – global, social, cultural, historical, political, philosophical, sociological, pedagogical and technological.



**Stage 2:** Building on your knowledge, skills and understanding gained in Stage 1, you develop a more specialised and sustained engagement with areas of study such as learning theory, the broader discourses of education in popular culture and innovative technologies of learning. You undertake research as part of a strand that runs across all three Stages, equipping you with the necessary skills and knowledge to undertake the dissertation at Stage 3.

You also begin the first of the two major career development modules in either student tutoring, student volunteering through the Students' Union, or learning from work, which will count towards your degree classification. You develop key skills including communication, teamwork, personal enterprise, problem solving, and planning and organising, which are directly transferable to a wide range of graduate employment contexts.

**Stage 3:** The emphasis is on you obtaining a deep and critical awareness of specific aspects of education both in its national and international contexts. You become more deeply aware of the importance of attention to detail, argument, criticality, ambiguity and complexity through modules relating to social justice, inclusive education and international development. You complete a research dissertation, enabling you to apply your understanding to different contexts, and giving you the exciting opportunity to generate new knowledge in the field.

*"The Education degree at Newcastle is a well-shaped degree because it provides you with knowledge about how education contributes to society, history and the economy, as well as schools."*

Meghana, Education BA Honours

# Electrical and Electronic Engineering

Degree	UCAS	Entrance requirements
<b>Automation and Control BEng Honours</b>	H660	<b>A Level: AAB</b> Including Mathematics and at least one of Physics, Chemistry, or Electronics and excluding General Studies or Critical Thinking.  For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. If Physics is not offered at A or AS Level, a minimum of grade B or 6 Physics or Dual Award Science GCSE is required.
<b>Digital Electronics BEng Honours</b>	H990	
<b>Electrical and Electronic Engineering BEng Honours</b>	H607	<b>International Baccalaureate: 35 points</b> Mathematics at Higher Level grade 5 or above and at least one of Physics or Chemistry at Higher Level grade 5 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.
<b>Electrical Power Engineering BEng Honours</b>	H623	
<b>Electronic Communications BEng Honours</b>	H640	<b>A Level: AAA</b> Including Mathematics and at least one of Physics, Chemistry, or Electronics and excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Physics or Dual Award Science (minimum grade B or 6) required if Physics is not offered at a higher level.
<b>Electronics and Computer Engineering BEng Honours</b>	H652	
<b>Microelectronic Engineering BEng Honours</b>	H611	<b>International Baccalaureate: 37 points</b> Mathematics at Higher Level grade 6 or above and at least one of Physics or Chemistry at Higher Level grade 6 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.
<b>Automation and Control With Industrial Project MEng Honours</b>	H661	
<b>Digital Electronics With Industrial Project MEng Honours</b>	H991	<b>A Level: AAA</b> Including Mathematics and at least one of Physics, Chemistry, or Electronics and excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Physics or Dual Award Science (minimum grade B or 6) required if Physics is not offered at a higher level.
<b>Electrical and Electronic Engineering With Industrial Project MEng Honours</b>	H605	
<b>Electrical Power Engineering With Industrial Project MEng Honours</b>	H622	<b>International Baccalaureate: 37 points</b> Mathematics at Higher Level grade 6 or above and at least one of Physics or Chemistry at Higher Level grade 6 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.
<b>Electronic Communications With Industrial Project MEng Honours</b>	H621	
<b>Electronics and Computer Engineering With Industrial Project MEng Honours</b>	H654	<b>A Level: AAA</b> Including Mathematics and at least one of Physics, Chemistry, or Electronics and excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Physics or Dual Award Science (minimum grade B or 6) required if Physics is not offered at a higher level.
<b>Microelectronic Engineering With Industrial Project MEng Honours</b>	H612	

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Foundation Year:** if you don't have the right mathematics and/or science qualifications for direct entry, you will be considered for a foundation year. See page 119 for details.

**Pre-Entry Mathematics Course:** if you don't have the required mathematics qualifications, you may be invited to take our Pre-Entry Mathematics Course to develop the mathematical skills needed to study your degree. Find out more online in the Entry Requirements tab of your chosen degree.

**International students:** we offer an Electrical Power Engineering BEng Honours in Singapore [www.ncl.ac.uk/singapore/study](http://www.ncl.ac.uk/singapore/study)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Computer Science; Engineering Foundation Programmes; Physics

## Why Study With Us?

Our degrees cover topics such as the design of power grids, wireless communications, microprocessor chip design and biomedical prosthetics and nurture you from student to professional engineer.

### League table ranking:

- ▶ top 20 in the UK – *The Times/Sunday Times Good University Guide 2018*
- ▶ top 10 in the UK for world-class research, with 90% of research classed as 'world-leading' or 'internationally excellent' – Research Excellence Framework 2014
- ▶ top 175 – Engineering and Technology category – *Times Higher Education World University Rankings by Subject 2018*

✓ **Professional accreditation\***: our degrees are professionally accredited by the Institution of Engineering and Technology (IET) on behalf of the Engineering Council. This means future employers will recognise the quality of your degree because it meets high professional standards. It also means both our BEng and MEng degrees provide a pathway to becoming a chartered engineer (CEng). This is one of the most recognised international engineering qualifications.

Our four-year 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 work towards chartered status. Our three-year BEng degrees can also lead to chartered engineer status. This can be achieved through professional development or a Master's degree. Transfer from a BEng to one of our MEng degrees is possible up to the end of the second year (Stage 2) if you achieve the appropriate academic standard.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement**: apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15. You'll also have access to a range of industry sponsorship opportunities and the opportunity to source summer placements.

**Learn industry-standard electronic design and simulation tools**: our computing facilities, software and hardware are reviewed regularly, so you're always working with the most up-to-date equipment.

**Access outstanding facilities**: such as state-of-the-art teaching laboratories for electronics, electrical power/motors, Intelligent Sensing Lab and Smart Grid.

**Be part of a welcoming community**: a highly active student-led society (Shock Soc), a peer-mentoring scheme, and a personal tutor are just some of the ways we help you feel supported.

**Benefit from cutting-edge research**: our research-informed teaching ensures that you develop knowledge of current and future breakthrough technologies such as biomedical engineering, 5G wireless communications and advanced electric drives.

**Become a graduate in demand**: many employers are actively seeking graduates with electrical and electronic skills and our close relationship with leading UK businesses provides valuable exposure to future employers.

**Industrial project (MEng Only)**: a major element of Stage 4 for MEng students is an industrial project. This gives you valuable experience of finding a job in a competitive market, working on a real engineering project set by your host business, developing your CV and making valuable industry contacts.

Many students choose to do this at a local company, but you may undertake the project anywhere in the UK or in Europe. Recent participating companies include Tridonic, Dyson, Komatsu, Jacobs, Bentley, Siemens and Imagination Technologies. Projects have included satellite electronic communication systems for mobile phones and navigation, protocols for electronic drive control, an electric bike, underwater autonomous vehicle control and connections for low carbon technology to the power grid.

**DTUS sponsorship**: our degrees are approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)

## What You Will Study

We have designed our degrees so that all students study the same core modules for the first two years (excluding Electronics and Computer Engineering BEng and MEng Honours, as these include more computer programming). These two years will provide you with a comprehensive understanding of the fundamentals. In your final year, you can choose a specialism or continue with a broad-based degree.

We cover topics such as current flow in semiconductor devices, electromagnetism, digital electronics and linear control theory, to enable you to understand the operation of simple electrical machines and electronic communication systems.

We complement this with teaching in how to analyse, design and construct electrical and electronic circuits to meet specific criteria.

We also help you develop your computing skills and engineering mathematics knowledge. Topics cover: extended C and assembly language programming techniques (including Java in Electronics and Computer Engineering degrees); the design and testing of microprocessor systems; and the application of differential equations and linear algebra to describe complex engineering systems.

You also take part in a series of group projects to develop your skills in soldering, wiring, circuit board construction and project planning. This includes the construction of a simple digital voltmeter, a power amplifier, and a radio transmitter and receiver. In the second year, you form teams to construct a racing car that can find its own way round a track. This culminates in a race held on the last day of term, where the teams go head-to-head in pursuit of a prize. After the race, teams are tasked with creating a crowdfunding video on how the technology can be utilised in industry. The teams then pitch their ideas to an academic panel.

## Your Future Career

Our graduates are working on the latest developments in hybrid vehicles, smartphone technology and green energy, with companies such as: Siemens; Dyson; Jaguar Land Rover; and Imagination Technologies.

Some graduates are also working in the commercial, financial, industrial and public sectors, often in management roles.

## Automation and Control

BEng Honours | H660 | 3 years | ✓ 📅

With Industrial Project  
MEng Honours | H661 | 4 years | ✓ 📅

These degrees cover the breadth of electrical and electronic engineering during the first two years (see What You Will Study, left).

You then specialise in electrical automation and control systems, their constituent parts and their applications in the later Stages of your degree. Automation and control is concerned with the design and operation of control systems used to monitor and control production processes and other technology such as vehicles and robots. Typical fields of study include electromagnetism, robotics and linear control theory.

This programme delivers a comprehensive treatment of the field of control systems, industrial applications, and distributed control. You will use industry-standard test and measurement equipment, utilise experimental hardware and be trained in software packages such as MATLAB to a professional level.

All students undertake a large individual design project in Stage 3, leading to the design and development of an original system or device. Recent examples include the development of electrical traction machines for Newcastle University's 2016 Formula Student electric racing car and developing photovoltaic solar power for homes in rural areas.

MEng students further develop their practical engineering skills through a group design project in Stage 4, alongside their industrial project (see **Industrial project**, opposite). You will investigate topics such as adaptive and distributed control systems.

**TOP 20**  
IN THE UK FOR  
ELECTRICAL AND  
ELECTRONIC  
ENGINEERING

*The Times/Sunday Times Good University Guide 2018*



## Digital Electronics

BEng Honours | H990 | 3 years | ✓ 

With Industrial Project

MEng Honours | H991 | 4 years | ✓ 

These degrees cover the breadth of electrical and electronic engineering during the first two years (see What You Will Study, page 115).

You then specialise in digital electronic systems, their constituents and their applications in the later Stages of your degree. Digital electronics focuses on the design and implementation of the digital systems at the heart of much modern technology. Typical fields of study include digital systems design and mobile and cellular communications.

This programme combines a unique blend of five fields of knowledge including embedded computer systems architecture and computer programming. It is industrially focused and tailored to the demands of companies that design and manufacture modern electronic equipment.

All students undertake a large individual design project in Stage 3, leading to the design and development of an original system or device. Recent projects include energy harvesting in wireless communication networks and digital radio interface.

MEng students further develop their practical engineering skills through a group design project in Stage 4, alongside their industrial project (see [Industrial project](#), page 114). You will investigate topics such as mobile and cellular communications.

*'I like working on projects because I can see the theory I learn in lectures in action. One of my modules involved building and racing a buggy on a magnetic field track. Our team won as we had the fastest buggy. The project gave us good experience in planning, time management and troubleshooting.'*

Edwin, Automation and Control BEng Honours

## Electrical and Electronic Engineering

BEng Honours | H607 | 3 years | ✓ 

With Industrial Project

MEng Honours | H605 | 4 years | ✓ 

These degrees are the broadest of all of our programmes. They cover the breadth of electrical and electronic engineering for the first two years (see What You Will Study, page 115), before giving you the chance to either specialise or continue with a broad choice of topics in the later Stages of your degree.

You cover everything from the operation and integration of nanoelectronic devices, to national-scale electricity networks. You also explore areas such as digital control systems, industrial automation and robotics and radio frequency engineering.

All students undertake a large individual design project in Stage 3, leading to the design and development of an original system or device. Recent examples include the development of covert optical communications, low-cost ultrasound scanners, wireless power transfer, and electronic sensors for deployment in volcanoes.

MEng students further develop their practical engineering skills through a group design project in Stage 4, alongside their industrial project (see [Industrial project](#), page 114). You will expand your skills in areas such as the design of modern electrical machines, and drives and distributed control systems.



## Electrical Power Engineering

BEng Honours | H623 | 3 years | ✓ 

With Industrial Project

MEng Honours | H622 | 4 years | ✓ 

These degrees cover the breadth of electrical and electronic engineering during the first two years (see What You Will Study, page 115).

You then specialise in electrical power systems, their constituent parts and applications in the later Stages of your degree. Electrical power engineering is concerned with the generation, transmission and distribution of electric power. Typical fields of study include electrical machines and renewable energy.

You will study all of the major disciplines in the field of electrical power; power electronics, electric drives, machines, control, and power systems. This will give you the theoretical knowledge and practical experience necessary to embark on a career as a design or development engineer in the field of electrical power engineering.

All students undertake a large individual design project in Stage 3, leading to the design and development of an original system or device. Recent examples include the development of a solar tracking system, solar power to energy transformation, and the development of an energy monitor unit.

MEng students further develop their practical engineering skills through a group design project in Stage 4, alongside their industrial project (see [Industrial project](#), page 114). You will expand your skills in areas such as the design of modern electrical machines, and drives and distributed control systems.

## Electronic Communications

BEng Honours | H640 | 3 years | ✓ 

With Industrial Project

MEng Honours | H621 | 4 years | ✓ 

These degrees cover the breadth of electrical and electronic engineering during the first two years (see What You Will Study, page 115). You then specialise in the skills required to become an electronic communications specialist.

The development of the internet, mobile telephones and dedicated high-speed data networks has fuelled a growth in international commerce and home-based shopping. It also makes information and entertainment resources readily available across the globe.

You cover everything from digital signal processing to telecommunication networks. You also explore areas such as industrial automation and robotics, digital control systems and image processing and machine vision. You study cross-cutting technologies in signals and communications, such as MIMO technology (to be crucial in future 5G systems). We are one of two UK universities to have a massive MIMO facility.

All students undertake a large individual design project in Stage 3, giving you the chance to apply what you learn to a wide range of communication problems. Examples of recent projects include: the development of a brain-machine interface; creating encryption techniques for wireless communications; and metallic object detection and identification.

MEng students further develop their practical engineering skills through a group design project in Stage 4, alongside their industrial project (see [Industrial project](#), page 114). You will develop specialist knowledge in fields such as mobile and cellular communications.

▶ Continued overleaf.

## Electronics and Computer Engineering

BEng Honours | H652 | 3 years |  

With Industrial Project

MEng Honours | H654 | 4 years |  

You study core elements from our common syllabus for the first two years (see What You Will Study, page 115) along with key computing engineering topics that are tailored to the needs of information engineers. They cover the processing of signals, whether they are represented as voltages, currents or numbers inside a computer.

Run in conjunction with Computing Science, the main emphasis is on the design of large computer systems, including software and hardware.

We concentrate on the computer systems engineering of digital systems. You cover topics such as: real-time programming; website creation and management; database system design and use; and real-time and embedded systems exploring the economics and metrics of embedded systems design.

This programme focuses on the holistic development of electronic systems that involve hardware and software working together. You will develop skills in Java and GUI programming, understand the fundamentals of VLSI circuit design and learn both conventional telephony and modern communications networks concepts.

All students undertake a large individual design project in Stage 3, leading to the design and development of an original system or device. Recent projects include an ultrasonic robot navigation system, multibiometric systems for face recognition and 3D reconstruction through stereo vision.

MEng students further develop their practical engineering skills through a group design project in Stage 4, alongside their industrial project (see [Industrial project](#), page 114). This is aimed at developing instrumentation for intelligent vehicles.

## Microelectronic Engineering

BEng Honours | H611 | 3 years |  

With Industrial Project

MEng Honours | H612 | 4 years |  

These degrees cover the breadth of electrical and electronic engineering during the first two years (see What You Will Study, page 115).

You then specialise in electronic systems, their constituents and their applications in the later Stages of your degree. Microelectronic engineering is concerned with the design and manufacture of electronic devices made from silicon, such as integrated circuits and sensors, as well as the development of devices using new materials. Typical fields of study include nanoscale electronic devices and integrated circuit design.

All students undertake a large individual design project in Stage 3, leading to the design and development of an original system or device. Recent projects include developing a frequency synthesiser for wireless biomedical devices, and designing and building a robot to navigate around a room.

MEng students further develop their practical engineering skills through a group design project in Stage 4, alongside their industrial project (see [Industrial project](#), page 114). You will develop specialist skills in design capture, and simulation and design synthesis techniques.

# Engineering Foundation Programmes

Degree	UCAS	Entrance requirements
<b>Chemical Engineering with Foundation Year BEng Honours</b>	H814	<b>A Level:</b> Offers in the range of AAA–ABB depending on the degree chosen
<b>MEng Honours</b>	H816	
Leads to one of our Chemical Engineering degrees – see page 73		
<b>Civil Engineering with Foundation Year BEng Honours</b>	H201	<b>International Baccalaureate:</b> Offers in the range of 34–37 points depending on the degree chosen
<b>MEng Honours</b>	H291	
Leads to one of our Civil Engineering degrees – see page 82		
<b>Electrical and Electronic Engineering with Foundation Year BEng Honours</b>	H604	
<b>MEng Honours</b>	H606	
Leads to one of our Electrical and Electronic Engineering degrees – see page 113		
<b>Marine Technology with Foundation Year BEng Honours</b>	J615	
<b>MEng Honours</b>	J616	
Leads to one of our Marine Technology degrees – see page 146		
<b>Mechanical Engineering with Foundation Year BEng Honours</b>	H304	
<b>MEng Honours</b>	H305	
Leads to one of our Mechanical Engineering degrees – see page 158		
<b>Engineering with Foundation Year BEng Honours</b>	H101	
<b>MEng Honours</b>	H103	
Leads to any of our Engineering degrees, providing appropriate modules have been taken		
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a>		
<b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222–223.		

## Our Programmes

Our Engineering with Foundation Year programmes provide pathways to our degrees if you do not meet the entry requirements for Stage 1 entry. On successful completion of an Engineering with Foundation Year programme, you can progress to Stage 1 of our three- or four-year engineering degrees.

During the Foundation Year you take just over half your modules in mathematics, mechanical sciences and applied mechanics. The remainder of your modules covers a range of engineering and science topics and includes a project, as well as laboratory work related to the engineering degree you wish to study.



# English Literature, Language and Linguistics

Degree	UCAS	Entrance requirements
English Language BA Honours*	Q302	<b>A Level: AAB/ABB</b> Not including General Studies. <b>International Baccalaureate: 34–35 points</b>
English Language and Literature BA Honours	Q300	<b>A Level: AAA–AAB</b> Including English Literature or English Language and Literature at grade A, not including General Studies.
English Literature BA Honours	Q306	
English Literature with Creative Writing BA Honours	QW38	<b>International Baccalaureate: 35–36 points</b> With English A1 at Higher Level, grade 6.
English Literature and History BA Honours	QV31	<b>A Level: AAA–AAB</b> Including English Literature or English Language and Literature at grade A and History at grade A or B, not including General Studies. <b>International Baccalaureate: 35–36 points</b> With English A1 at Higher Level grade 6 and History A1 at Higher Level grade 5 or 6.
Linguistics BA Honours**	Q100	<b>A Level: AAA–ABB</b> Not including General Studies
Linguistics with Chinese or Japanese BA Honours**	Q1T4	<b>International Baccalaureate: 34–36 points</b>
Linguistics with French BA Honours**	Q1R1	<b>A Level: AAA–ABB</b> Including French, German or Spanish as appropriate. Candidates with AS Level French, German or Spanish (minimum grade B) will also be considered. Not including General Studies.
Linguistics with German BA Honours**	Q1R2	
Linguistics with Spanish BA Honours**	Q1R4	<b>International Baccalaureate: 34–36 points</b> With grade 5 in French, German, or Spanish as appropriate at Higher Level.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

\*If you have some background in mathematics and science you may be interested in the cognitive/brain science and quantitative elements of this course. If you prefer arts and humanities subjects you may be interested in the historical, sociological and literary elements of the course.

\*\*We particularly encourage applicants with some qualifications in mathematical and/or scientific fields. As these courses contain a combination of scientific thinking, language skills and mathematical reasoning, they are especially suited to students who enjoy both mathematics/science and arts/humanities subjects.

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.


**YOU MAY ALSO BE INTERESTED IN:** Classical Studies and English; Combined Honours (English, plus up to two other subjects); Media, Journalism and Film; Modern Languages and Linguistics


## Why Study With Us?

Our study topics span centuries and continents, giving you the chance to tailor your degree to your interests.

### League table ranking:

- ▶ 3rd in the UK – *The Complete University Guide 2018* (Linguistics category)
- ▶ 5th in the UK – *The Times/Sunday Times Good University Guide 2018* (Linguistics category)
- ▶ 7th in the UK – *The Times/Sunday Times Good University Guide 2018* (English Studies category)
- ▶ 5th in the UK for student satisfaction (95% overall satisfaction score) – National Student Survey 2017 (Linguistics category)
- ▶ 93% overall student satisfaction score – National Student Survey 2017 (English Studies category)
- ▶ top 100 – English Language, Literature and Linguistics categories – QS World University Rankings by Subject 2017
- ▶ 3rd in the UK for research – Research Excellence Framework 2014 (English Language and Literature category)
- ▶ top 200 – Arts and Humanities category – *Times Higher Education World University Rankings* by Subject 2018

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

 **Study abroad:** you have the chance to study abroad for one semester. We have links with universities in various countries, including Belgium, the Netherlands, Norway, Australia, Canada and the USA. All our partner institutions offer teaching at the highest level in English literature, language and linguistics, giving you the opportunity to study exciting modules in a very different environment. See page 16 for more information.

Students studying Linguistics with French, German, Spanish, Chinese or Japanese spend a full academic year abroad as part of their degrees, organised and supported by the School of Modern Languages.

If you are studying a European language you may spend the year:

- ▶ studying at one of our partner institutions
- ▶ teaching English as a foreign language abroad under the British Council English Language Assistantship Programme
- ▶ working, or combining study and work

Students of Chinese and Japanese spend the year in China or Japan, studying at one of our partner universities.

**Enjoy choice and flexibility:** with a wide range of optional modules including creative writing, film-making and film history, drama and children's literature.

**Lose yourself in our award-winning University Library:** access over one million printed books, six million e-books, special collections and 2,000 study spaces.

**Get involved in student media:** our award-winning student-run newspaper, and radio and TV stations, provide an excellent training ground if you have journalistic ambitions.

**Access outstanding linguistic expertise:** Newcastle is home to one of the largest concentrations of linguists in the world.

**Get credit for work and volunteering:** choose an optional career development module for academic credit for work in industry, public institutions, local schools or volunteering activities.

**Benefit from over 100 years of expertise:** our long and prestigious history means we attract high-quality students and our graduates are outstanding.

**On-campus theatre:** Northern Stage, one of the city's most popular theatres, is on campus.

## Your Future Career

Our degrees prepare you for a range of different careers or postgraduate study, in areas such as: the legal profession; journalism; public service; marketing; advertising; management; librarianship; teaching; speech therapy; computing and information technology.

The skills you gain are useful in any field where communication is important, including science, finance, business, trade and international relations and creative industries, as well as in companies that rely on language for technology and engineering (such as Google, Apple and Microsoft).

**3RD IN  
THE UK FOR  
LINGUISTICS**

*The Complete University  
Guide 2018*

## English Language

BA Honours | Q302 | 3 years |  

This degree explores the English language as it has developed over time. You'll learn how it is acquired as a first and second language, and how it is used to mark social, regional and stylistic distinctions. There is a strong element of linguistics in this degree. You gain knowledge of the emergence and growth of language in the mind, as well as methodologies for studying the human language faculty.

Topics also include the grammatical structure of English and general phonetics/phonology, as well as the social and historical context in which the English language has changed and developed.

There is flexibility at each Stage to also choose topics from our English literature and linguistics degrees. These could include language options, such as Chinese, Japanese, German, French and Spanish (taught in the School of Modern Languages) as well as poetry, creative writing, drama, children's fiction and film modules (taught in the School of English Literature, Language and Linguistics).

**Stage 1:** We lay the foundation for analysing and describing the English language and focus on topics such as word and sentence structure and general phonetics/phonology, incorporating an understanding of differences in English across time and regional space. You explore the nature of language itself, from animal 'language' to Standard and dialectal Englishes, and ways of collecting, evaluating and displaying data about them.

**Stage 2:** You focus on the social context in which language is embedded as well as exploring how English has changed over time. You can also study linguistic methods for analysing the structure of sentences and sound patterns of language in more depth, and can choose modules that explore the science of meaning and language in context.

**Stage 3:** You work with increasing independence to develop your own specialist interests, by choosing from topics linked to the research specialisms of your lecturers. These may include: child language acquisition; discourse analysis; language origins and evolution; the acquisition of English as a first or second language; language and ethnicity; advanced phonology or grammar; and the history of English grammar. There are also extended study and dissertation modules that give you the chance to investigate in greater depth a topic that you are passionate about. There may also be opportunities for you to participate in ongoing research projects.

## English Language and Literature

BA Honours | Q300 | 3 years |  

This degree combines elements from our English Language and English Literature degrees in roughly equal proportions, developing your skills and knowledge in both subjects.

You study at least one third of your topics in each discipline at each Stage. You have the freedom to choose the remaining third from a wide selection of our language, linguistics or literature modules, or from other subject areas.

**Stage 1:** We lay the foundations for the theoretical and historical study of language and literature. We introduce you to general topics on the nature of language and more specific ones, such as the investigation of regional dialects.

**Stages 2 and 3:** Your language modules develop your knowledge of formal approaches to the structure of English, the history of the English language, the social contexts in which English is used, and scientific methodologies for studying these phenomena as a window on the human language faculty.

In literature, you take at least one pre-20th-century topic alongside a more contemporary one, in both the second and third years. A wide range of topics is always available, including: Renaissance literature; Romantic literature; the Victorians; 20th-century British and American modernism; post-war and contemporary culture; drama; children's fiction; film modules; documentary film-making; poetry; and creative writing.

In Stage 3, you work with increasing independence to develop your own specialist interests by choosing from topics linked to your lecturers' research specialisms. An independent study module or dissertation gives you the chance to investigate in greater depth a topic that you are passionate about.

## English Literature

BA Honours | Q306 | 3 years |  

This degree provides you with an excellent education in literature, drama and film. Taught by accomplished scholars, this flexible degree offers a wide range of module choices with extensive historical coverage. There are opportunities to practise creative writing and theatre, make films, or join a work placement in one of the region's cultural industries. However, our principal aim is to deepen your knowledge of literary texts and give you a firm foundation in the critical and theoretical skills needed to analyse them.

**Stage 1:** We introduce you to a variety of literary texts (poetry, prose, plays and film). This will provide you with a good foundation in the critical and theoretical skills you need to analyse the literature you will be studying at Stages 2 and 3.

**Stage 2:** You advance your knowledge and understanding of English literature through the ages. You take at least two pre-20th-century topics alongside at least two contemporary ones. These choices cover film, theatre, poetry and prose. Options always available are American, Postcolonial and Contemporary literatures, and Renaissance, Romantic and Victorian literatures. An independent research project teaches you how to research, plan and write an essay on an area of literary study of particular interest to you.

**Stage 3:** You continue to broaden and deepen your understanding of English literature by choosing four specialist options closely linked to your lecturers' research expertise (the only restriction being that you need to cover at least one earlier period topic and a more contemporary one). Current options include the Victorian novel, life writing, nonsense literature, British and international children's literature, Romantic poetry, Caribbean literature and film, medieval literature, American literatures or a work placement in the cultural industries. You also either write a final-year dissertation based on the in-depth study of a topic you are passionate about or produce a file of original creative work (a collection of poems, a work of fiction, a play, or a film script).

## English Literature and History

BA Honours | QV31 | 3 years |  

This degree builds on the long-established partnership between the School of English Literature, Language and Linguistics and the School of History, Classics and Archaeology. We work together on this degree to offer students the best of both disciplines.

You learn the skills of close reading and literary analysis, and acquire the ability to evaluate and synthesise a wide range of evidence. These skills will combine to create a graduate who can think flexibly, argue cogently, and fluently communicate complex ideas to a wide range of audiences.

**Stage 1:** We introduce you to a range of methodological techniques and to historiographical and literary-critical traditions relating to both subjects. You then choose from a range of modules to develop a strong foundation of knowledge and understanding in both subjects. In history these include British, European, American and world history. In English these include literature from the Anglo-Saxons to the Romantics, 20th- and 21st-century literature and film from Britain and America, the history of drama and performance, and creative writing.

**Stages 2 and 3:** In each year you will choose from between 30 and 40 optional modules, taking a minimum of two from each School. Many of the two Schools' modules dovetail in theme and period, allowing you to 'map' your degree. For example, you might study the history of colonial India at Stage 2 followed by a module on India's postcolonial literature in Stage 3, or study the history of Victorian Britain and a module on the Victorian novel.

We also have two modules at Stages 2 and 3 which are taught jointly by staff from both Schools. These are unique to this degree and created specifically for its students. The Stage 2 module will teach you how to undertake independent, original research and how best to use both your literary and historical skills in that research. The Stage 3 module is a dissertation in English and history. Here you choose the topic and plan the research, supported by two supervisors.

There is also the choice of taking modules offered by other schools within the University at all Stages of your degree, including several language options.



## English Literature with Creative Writing

BA Honours | QW38 | 3 years |  

Combine the study of English literature with the chance to develop your creative skills under the guidance of our talented and well-known staff. This degree draws on the wealth of creative talent in the School of English Literature, Language and Linguistics, as well as the activities of the Newcastle Centre for the Literary Arts.

**Stage 1:** We introduce you to a variety of literary texts (poetry, prose, plays and film) and provide you with a good foundation in the critical and theoretical skills you need for your studies at Stages 2 and 3. You explore different ways of approaching creative writing, develop your creativity and gain experience of writing in different forms.

**Stage 2:** The second year advances your knowledge and understanding of English literature through the ages and strengthens your sense of the relationships between critical and creative writing. At the same time, it gives you the chance to develop your craft and literary techniques in poetry, prose or script.

**Stage 3:** You will be supported in the production of a file of original literary work (a collection of poems, a work of fiction, a play or a film script) that will bring together everything you've learnt about creative writing and allow you to devise a project that demonstrates your individuality as a writer.

You also choose four specialist options in literature, all closely linked to your lecturers' research expertise. Current options include the Victorian novel, life writing, nonsense literature, British and international children's literature, Romantic poetry, Caribbean literature and film, American literatures, or medieval literature.

*'I enjoy that every lecture teaches me something new, which is great when you're studying something you are genuinely interested in.'*

Ruby, English Language BA Honours

## Linguistics

BA Honours | Q100 | 3 years |  

In this degree you study language to understand how it works, how it is structured and what it does; from the physical properties of speech, to how languages change and develop over time. You gain knowledge of the emergence and growth of language in the brain, as well as methodologies for the scientific study of the human language faculty. You also have the chance to learn one or more modern languages from a choice of French, German, Portuguese, Spanish, Chinese or Japanese.

**Stage 1:** Your first year lays the foundation for analysing and describing language, focusing on topics such as word and sentence structure and general phonetics/phonology. You also look at the nature of language itself, from animal 'language' to standard and regional language varieties, and ways of collecting, evaluating and displaying data about them. In addition, you will choose one foreign language to study intensively. This will be undertaken in the School of Modern Languages, where you will develop skills in reading, writing, listening and speaking in your chosen language.

**Stage 2:** You develop your knowledge of core aspects of grammar and sound patterns and how these apply to a range of languages. We also broaden your understanding of language study by exploring the social context in which languages are learned, used and developed over time. Some of your topics are optional so you can continue to take foreign language modules. You can also choose from topics such as language acquisition and historical linguistics.

**Stage 3:** You work with increasing independence to develop your own specialist interests by choosing from topics linked to your lecturers' research specialisms. These include: syntactic and phonological theory; low-educated second language and literacy acquisition; language origins and evolution; child language acquisition; language change; and discourse analysis. There are also extended study and dissertation modules that give you the chance to investigate in greater depth a topic that you are passionate about. There may be opportunities for you to participate in ongoing research projects conducted by staff.

## Linguistics with Chinese or Japanese

BA Honours | Q1T4 | 4 years | 

With the steady increase in global business activity, knowledge of an East Asian language is an important skill that is sought by many employers. At each Stage, you spend two thirds of your time studying linguistics, concentrating on the structure, history and sociological aspects of English and other languages. You spend the remaining third studying Mandarin Chinese or Japanese. The degree structure is similar to our Single Honours Linguistics degree (see opposite), the main differences being that you concentrate on the same East Asian language at each Stage and spend a year abroad during Stage 3 in either China or Japan.

**Stages 1 and 2:** The linguistics topics you study are broadly similar to our Single Honours degree. Your language tuition in the School of Modern Languages establishes a basic foundation in the language systems (grammar, orthography, and phonetics) of Mandarin Chinese or Japanese. You also begin to develop your reading, listening, writing and speaking skills in preparation for your year abroad.

**Stage 3:** You spend your third year studying in either China or Japan (see [Study abroad](#), page 121). We have links with universities across both countries. See [www.ncl.ac.uk/undergraduate/degrees/q1t4](http://www.ncl.ac.uk/undergraduate/degrees/q1t4) for more details.

**Stage 4:** You continue to study advanced language modules in your chosen language, reflecting the fluency you will have gained during your year abroad. An extended project gives you the chance to study in greater depth a topic that you are passionate about. The remaining half of your topics are optional and are linked very closely to your lecturers' research specialisms. These currently include: syntactic and phonological theory; low-educated second language and literacy acquisition; language origins and evolution; child language acquisition; language change; and discourse analysis.

## Linguistics with French

BA Honours | Q1R1 | 4 years |  

## Linguistics with German

BA Honours | Q1R2 | 4 years |  

## Linguistics with Spanish

BA Honours | Q1R4 | 4 years |  

These degrees combine the study of linguistics with insights from a European language, to explore how language works and what it does.

At each Stage, you spend two thirds of your time studying linguistics, concentrating on the structure, history and sociological aspects of English and other languages. For the remaining third, you have language classes in French, German or Spanish. These are available from beginners', intermediate (post-GCSE or equivalent) or advanced level (post-A Level or equivalent), to match your previous experience. You also spend a year abroad during Stage 3.

**Stages 1 and 2:** The linguistics topics you study are broadly similar to our Single Honours Linguistics degree (see opposite). Your language tuition involves two hours a week on speaking, reading, writing and listening skills, taught by a native speaker of the language you're learning. You also have a weekly one-hour grammar lesson. You complement this with modules aimed at helping you to understand the culture and society of the country where your chosen language is spoken. In addition, German speakers can take modules in beginners' Dutch, while Spanish speakers can take modules in Catalan or the indigenous Latin American language, Quechua.

**Stage 3:** You spend your third year studying or working in a French-, German- or Spanish-speaking country. See [Study abroad](#), page 121.

**Stage 4:** You continue to study advanced language modules in your chosen language, reflecting the fluency you will have gained during your year abroad.

An extended project gives you the chance to study in greater depth a topic that you are passionate about. The remaining half of your topics are optional and are linked very closely to your lecturers' research specialisms. These currently include: syntactic and phonological theory; low-educated second language and literacy acquisition; language origins and evolution; child language acquisition; language change; and discourse analysis.

# Environmental and Rural Studies

Degree	UCAS	Entrance requirements
<b>Countryside Management BSc Honours</b>	D455	<b>A Level: ABB–BBB</b> GCSE Mathematics (minimum grade C or 4) required.
<b>Rural Studies BSc Honours</b>	D452	<b>International Baccalaureate: 32–34 points</b> With Mathematics or Mathematical Studies grade 4 at Standard Level if not offered at Higher Level.
<b>Environmental Science BSc Honours</b>	F850	<b>A Level: ABB</b> Preferably including two science subjects from: Mathematics, Chemistry, Biology, Geography, Environmental Science, Psychology and Physics.
<b>With Placement BSc Honours</b>	F851	For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics (minimum grade C or 4) required if not offered at a higher level.
<b>Environmental Sciences (Agricultural and Environmental Science) MEnvSci Honours</b>	F8D4	<b>International Baccalaureate: 34 points</b> With at least one science subject at Higher Level grade 5 or above from Mathematics, Chemistry, Biology, Geography, Environmental Science, Psychology and Physics. Mathematics or Mathematical Studies at Standard Level grade 4 or above if not offered at Higher Level.
<b>With Placement MEnvSci Honours</b>	FD84	
<b>Environmental Sciences (Clean Technology) MEnvSci Honours</b>	F8H8	
<b>With Placement MEnvSci Honours</b>	FH88	
<b>Environmental Sciences (Ecosystem Management) MEnvSci Honours</b>	F8C1	
<b>With Placement MEnvSci Honours</b>	FC81	
<b>Environmental Sciences (Environmental Geochemistry) MEnvSci Honours</b>	F8F6	
<b>With Placement MEnvSci Honours</b>	FF86	

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Stage 2 Direct Entry:** direct entry on to Stage 2 of our Countryside Management, Rural Studies or Environmental Science degrees may be offered to students who have completed a Newcastle University-accredited foundation programme with Northumberland College – see [www.northumberland.ac.uk](http://www.northumberland.ac.uk)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Agri-Business and Food Management; Agriculture; Animal Science; Biology and Zoology; Geography

## Your Future Career

Our graduates have worked for organisations including the European Parliament, the Meteorological Office and Oxfam. They most commonly progress to land-based and environmental careers. Examples include: chartered surveyor and land agent; rights-of-way officer; part of a conservation team for local authorities, charities or pressure groups; and agricultural or environmental advisers with government organisations and private firms.

Our graduates also work in environmental consultancy and engineering, with conservation bodies, the Environment Agency, water companies, local government departments and environmental protection agencies.

**TOP 10  
IN THE UK FOR  
ENVIRONMENTAL  
SCIENCE**

*The Times/Sunday Times Good  
University Guide 2018*

## Why Study With Us?

If you enjoy the outdoors, and want to combine your interest in the environment with skills that can lead to a wide range of careers, Environmental and Rural Studies has plenty to offer.

### League table ranking:

- ▶ top 10 in the UK – *The Times/Sunday Times Good University Guide 2018* (Geography and Environmental Science category)
- ▶ top 20 in the UK – *The Complete University Guide 2018* (Geography and Environmental Science category)
- ▶ 92% overall student satisfaction score – National Student Survey 2017 (Physical Geography and Environmental Science category)
- ▶ top 150 – Environmental Sciences category – QS World University Rankings by Subject 2017

**Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). You'll receive support to apply for a suitable placement, including help to write your CV to send out to our wide range of industry contacts. You'll gain first-hand experience of working in the environmental sector, putting your learning into practice and developing your professional expertise. If you impress your host company, it could even result in a job offer on graduation. Find out more on pages 14–15.

**Study abroad:** BSc students may choose to take their work placement abroad through the Erasmus+ scheme. MEnvSci students can integrate six or 12 months of study abroad as part of their degree, usually at Stage 3. Recent students have studied in Canada. See page 16 for more information.

**Develop career-enhancing skills:** in business and entrepreneurship, marketing, management, negotiation and co-operation.

**Enjoy fantastic fieldwork experiences:** including Northumberland National Park, home to Hadrian's Wall and the Cheviot Hills; and Kielder, northern Europe's largest man-made lake and England's largest forest.

**Engage with professionals in the sector:** gain an insight into different careers through our strong links with estate managers, local authorities, voluntary organisations, farms, and other land-based businesses.

**Develop practical skills in first-class facilities:** including two University farms and an experimental station with a range of field laboratories.

**Learn from leading experts in the environment:** our research-informed teaching incorporates the latest discoveries from the Newcastle University Institute for Sustainability and our Centre for Rural Economy.

**Study a diverse curriculum:** including topics from biology, geography, business, law, ecology and agriculture.

## Countryside Management

**BSc Honours | D455 | 3 years** 

The broad scope and flexibility of this degree make it an attractive option for anyone whose interests span the environmental and social sciences. It integrates elements from a range of subjects such as geography, ecology, law, wildlife conservation, agriculture, business and estate management, to provide a balanced overview of the competing interests on the countryside. You also gain an insight into the effects that land use has on the economy and quality of life for local communities.

**Stage 1:** We introduce you to a number of topics in rural development, environmental management, agriculture, study skills, business management and plant science, all set within a rural context. This lays the foundations for examining the problems of managing the countryside in a sustainable way. You have the opportunity to experience management in action through a series of site visits in the region. It is possible to transfer to our Rural Studies degree at the end of Stage 1 should you wish to.

**Stage 2:** You cover more specialised topics in land management, wildlife conservation, law, research methods, communications skills and countryside heritage. You have a choice of optional modules, which include topics such as field identification, geology, crop and livestock production, soil science, farm management and accounting. There is also a choice of career development modules.

**Work placement year (optional):** Apply to spend a year on a work placement between Stages 2 and 3. This extends your degree by a year. See left.

**Stage 3:** An independent research project accounts for a quarter of your time and may be linked to a vacation project or work placement. Recent projects have investigated topics such as: game management; countryside tourism; pollinators and land management; wildlife gardening; outdoor education; solar farms; and wildlife conservation.

You also study countryside management, sustainability and environmental valuation, and rural planning and politics. Optional modules include topics such as environmental law, land-based enterprises, ecology and environmental research, and sustainable land or water management.



## Rural Studies

BSc Honours | D452 | 3 years |  

This degree is ideal for anyone whose interest in the countryside centres around the social, economic and political systems that we use to manage the environment and support rural businesses and communities. It focuses on issues of rural development and rural resource management.

**Stage 1:** We introduce you to the context of rural studies through topics such as economics, rural development, environment and land use, marketing and business management. You will visit various rural enterprises and sites. These introduce you to a range of countryside professionals and provide an insight into some of the problems facing today's rural enterprises. It is possible to transfer to our Countryside Management degree at the end of Stage 1 should you wish to.

**Stage 2:** You study land law, research methods, accounting and finance, and landscape management. You also have a choice of optional topics covering areas such as marketing strategy, crop and livestock production, social geographies, human resource management and agricultural marketing. You can take a career development module designed specifically for those wishing to explore enterprise, entrepreneurship and employability.

**Work placement year (optional):** Apply to spend a year on a work placement between Stages 2 and 3. This extends your degree by a year. See page 127.

**Stage 3:** An independent research project accounts for a quarter of your time and may be linked to a vacation project or work placement. Recent projects have focused on topics such as: the role of wind farms in rural development; the future for market towns; renewable energy generation in rural communities; the future of the country pub; biofuel production; the economics of game management; women in rural enterprise; and the benefits of ecotourism. You also study topics in: countryside management; environmental valuation; and rural planning, politics and society. Optional modules include enterprise and entrepreneurship, farm management, marketing and public policy, sustainable land management, globalisation, rural enterprise, and environmental law.

## Environmental Science

BSc Honours | F850 | 3 years | 

With Placement

BSc Honours | F851 | 4 years |  

Environmental science is the study of the whole environment. It covers both biological organisms and our physical environment, and the interactions between them. Biology and geography are important parts of these degrees, to help you understand the processes within ecosystems and how we can manage our natural resources more effectively. You will also study chemistry, physics and geology as applied to the study of the environment. In addition, you learn about the role of social and economic factors, ethics and public perception in environmental management.

**Stage 1:** We introduce you to a number of topics in environmental science, physical geography, plant biology and ecology, which lay the foundations for more specialised study in later Stages.

**Stage 2:** You study compulsory modules that cover topics in the practice of environmental science, terrestrial ecosystems and pollution. You develop your professional skills with a focus on both career development and research. You also select optional topics from a range that includes: conservation; landscape, culture and heritage; population ecology; and economics.

**Work placement (F851):** Spend a year between Stages 2 and 3 on a work placement in the UK or abroad, gaining valuable practical experience in the environmental sector and developing an understanding of the environmental industry.

**Stage 3:** You take part in a residential field course that develops your ecological research skills and your professional skills in writing and presenting reports. You also study compulsory topics in sustainability, environmental impact assessment and project management, and apply a range of research methods in a study of environmental pollution. A quarter of your study time is made up of optional modules, which allow you to select topics to study in detail such as: conservation; ecological modelling; policy evaluation; environmental law; and countryside management.

## Environmental Sciences

Agricultural and Environmental Science

MEnvSci Honours | F8D4 | 4 years | 

With Placement

MEnvSci Honours | FD84 | 5 years |  

Clean Technology

MEnvSci Honours | F8H8 | 4 years | 

With Placement

MEnvSci Honours | FH88 | 5 years |  

Ecosystem Management

MEnvSci Honours | F8C1 | 4 years | 

With Placement

MEnvSci Honours | FC81 | 5 years |  

Environmental Geochemistry

MEnvSci Honours | F8F6 | 4 years | 

With Placement

MEnvSci Honours | FF86 | 5 years |  

If you are planning a career in the environmental sector or academia, or think you might want to study for a higher qualification such as a PhD, we encourage you to apply for one of these Integrated Masters' degrees.

They follow the same programme as the Environmental Science BSc Honours for the first three years (see opposite) but include an additional year of advanced study in a specialist area of environmental science. You undertake a substantial research project in the fourth year, which gives you experience of working in a research environment.

Transfer between all our environmental sciences degrees is possible up to the end of Stage 2 if you meet the appropriate academic standard.

**Stages 1 to 3:** See Environmental Science BSc Honours, opposite. MEnvSci students may choose to spend Stage 3 studying overseas on a linked Study Abroad or Erasmus+ programme instead of at Newcastle.

**MEnvSci Placement Year degrees:** Placement MEnvSci degree students spend a year between Stages 2 and 3 on a work placement in the UK or abroad. You'll gain valuable practical experience in, and develop your professional understanding of, the environmental sector.

**Stage 4:** The fourth year is designed around the research currently taking place at the University in one of four specialist areas:

- ▶ agricultural and environmental science
- ▶ clean technology
- ▶ ecosystem management
- ▶ environmental geochemistry

You undertake your own research project in an area of interest, relating to your chosen specialism. This accounts for a quarter of your study time and may involve scientific research or a consultancy-based investigation.

*'The thing I enjoy most about my course is the variation in what we get to study – we can tailor the course to our interests with the range of optional modules offered. Many of our lecturers lead multiple modules, so you get to know them really well.'*

Phoebe, Environmental Science BSc Honours

# Fine Art

Degree	UCAS	Entrance requirements
Fine Art BA Honours	W150	<b>A Level: AAB–BBB</b> A key feature of our selection process is the inspection of a portfolio of artwork. We may consider lower offers for candidates where the portfolio is exceptional.  <b>International Baccalaureate: 32–35 points</b> Including three subjects at Higher Level grade 5. A key feature of our selection process is the inspection of a portfolio of artwork. We may consider lower offers for candidates where the portfolio is exceptional.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Selection process:** if, from looking at your portfolio, we are interested in your work and feel that you would be suited to our programme, we will invite you for an interview. For more information, see: [www.ncl.ac.uk/undergraduate/degrees/w150/entryrequirements](http://www.ncl.ac.uk/undergraduate/degrees/w150/entryrequirements)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Combined Honours (History of Art, plus up to two other subjects)

## Your Future Career

Our graduates build highly successful careers as practising artists and arts professionals, as well as in the wider visual arts field. Many choose to go on to postgraduate study.

Related careers taken up by our graduates include: art gallery curators; advisers on art to public and private organisations; art teachers; art therapists; and arts specialists in the community. Other students enter graduate professions in areas such as finance, marketing, journalism, publishing and management. Some are working on a freelance basis.

Our 2016 Fine Art BA Honours graduates are working in roles such as: performance artist; self-employed assistant set designer; studio assistant; marketing assistant; and digitisation and archival conservationist.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Fine Art BA Honours leavers, within six months of graduating)





## Why Study With Us?

We will develop your individual creative strengths and ambitions through a carefully structured course combining studio practice with art history.

### League table ranking:

- ▶ 1st in the UK – *The Times/Sunday Times Good University Guide 2018* and *The Complete University Guide 2018* (Art and Design category)
- ▶ 91% overall student satisfaction score – National Student Survey 2017
- ▶ top 200 – Arts and Humanities category – *Times Higher Education World University Rankings by Subject 2018*

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

 **Study abroad:** there are regular study trips abroad, supporting both the art history and studio components of your degree. These are optional and must be self-funded. Recent trips have been to New York, the Venice Biennale, Madrid, Florence and Berlin. There is also a competitive prize fund to support individual research trips abroad and an international residency opportunity.

You may spend a semester in your third year on a study exchange in Europe through the Erasmus+ scheme, or further afield through our non-EU exchange programme. We currently have exchange partners in Germany, Sweden, Norway, Poland, France and Denmark. See page 16 for more information.

**Establish your creative identity:** experiment with a variety of media and methods, under the guidance of our studio tutors.

*'The quality of the teaching on the course is exemplary. All of the lecturers (and many of the technicians and administration staff) are practising artists in their own right. The School has a welcoming and warm ethos, where students and staff are happy to help each other out.'*

Luke, Fine Art BA Honours

**Learn from professional artists:** receive tuition from artists and arts professionals of world standing, working at the cutting edge of contemporary art. Enjoy close interaction thanks to our excellent student–staff ratio.

**Bring your ideas to life in purpose-built studios:** enjoy superb campus studios, workshops and exhibition spaces for creating and exhibiting work across all fine art media, including large-scale work, installations, video- and time-based practice.

**Enjoy a dynamic learning experience:** participate in workshops, lectures and seminars featuring some of the most exciting artists, critics and curators working today.

**Join a thriving art community:** you'll be based in the Fine Art Building, home to the Hatton Gallery, one of the region's leading public art galleries, an art materials shop and a busy student-run café.

**Enjoy excellent working links:** thanks to our strong professional contacts with artists and arts organisations in the region.

**Study in a cultural city:** Newcastle is home to a vibrant arts culture with over 400 artists' studios and exhibition spaces in the city centre. These range from the larger BALTIC Centre for Contemporary Art to a thriving independent sector with galleries like Vane, Workplace and NewBridge.

**Benefit from our professional development programme:** LifeWorkArt, which runs throughout your degree.





## Fine Art

BA Honours | W150 | 4 years | 

Our four-year practice-based degree is carefully structured to give you the time and space to develop your work across a broad range of media: painting; sculpture; photography; print; film; video; sound; performance; and installation. This gives you the chance to explore your creative identity in depth, supported by a stimulating selection of art historical and theoretical modules that are designed to extend your appreciation and understanding of art.

Our professional development module, LifeWorkArt, is integrated at each Stage. Run in collaboration with many regional and national arts organisations, such as BALTIC, The NewBridge Project and Newcastle City Council, this module gives you a vital insight into a broad range of professional arts-based practices and potential career paths. Skills are developed through live projects: exhibitions, placements, public art, collaborations and residencies.

**Stage 1:** A series of studio-based projects introduces you to painting, print, sculpture and time-based media. You can also choose from artist-led workshops in contemporary drawing, performance art, web-based work and digital media. In Semester 2 you produce work based around the idea of Narrative, towards a large group exhibition.

Within LifeWorkArt, you visit galleries, studios and arts projects, developing contacts with the people who run them. You also develop a group exhibition, gaining skills in curating, installation, marketing, fundraising and project planning.

*'The teaching quality is outstanding. Teaching includes one-to-one tutorials, group critiques, lectures, external artists' critiques and practical-based sessions with technicians, to name but a few.'*

Rachel, Fine Art BA Honours

Lectures and seminars in art history lay the foundation for future study, with a chronological introduction to Western European art from 1300 to 1900 in Semester 1, and European modernism from 1900 to 1945 in Semester 2.

**Stages 2 and 3:** You continue to work across studio disciplines, increasingly directing your work in the media that best support your ideas. You have a choice of history of art modules, including post-war art, modern and postmodern photography, portraiture, the emergence and history of public art, and art and globalisation. You also engage in LifeWorkArt activities both in and outside of the University.

In Stage 3 all students write an art history dissertation on a topic of their choice. You also have the option of doing a LifeWorkArt project.

**Stage 4:** You may choose to concentrate entirely on studio work or balance this with a choice of art history, LifeWorkArt or intensive career development modules. You undertake a self-initiated programme of studio work, creating a body of work to present in the final-year degree show exhibition.

You develop professional skills in presenting yourself and your work, and have the opportunity to start building your network within the visual arts, through a series of hands-on practical workshops and a conference where you meet recent graduates, artists, curators and arts professionals.



# Geography

Degree	UCAS	Entrance requirements
<b>Geography BA Honours</b>	L701	<b>A Level: AAB-ABB</b> Including Geography and excluding General Studies. GCSE Mathematics (minimum grade C or 4) is also required.  <b>International Baccalaureate: 32-35 points</b> With Geography at Higher Level grade 6 or above. Standard Level Mathematics or Mathematical Studies required at grade 4 if not offered at Higher Level.
<b>Geography BSc Honours</b>	F800	<b>A Level: AAB-ABB</b> Including Geography and at least one science-related subject from Mathematics, Chemistry, Physics, Biology and Geology. General Studies is not accepted. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics (minimum grade C or 4) is also required if not offered at a higher level.  <b>International Baccalaureate: 32-35 points</b> With Geography at Higher Level grade 6 or above. Standard Level Mathematics or Mathematical Studies required at grade 4 if not offered at Higher Level.
<b>Physical Geography BSc Honours</b>	FH82	<b>A Level: ABB</b> Including Geography and at least one science-related subject from Mathematics, Chemistry, Physics, Biology and Geology. General Studies is not accepted. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics (minimum grade C or 4) is also required if not offered at a higher level.  <b>International Baccalaureate: 32 points</b> With Geography at Higher Level grade 6 or above. Standard Level Mathematics or Mathematical Studies required at grade 4 if not offered at Higher Level.
<b>Geography and Planning BA Honours</b>	LK74	<b>A Level: ABB-BBB</b> Including Geography.  <b>International Baccalaureate: 30-32 points</b> Geography at Higher Level is preferable.
<b>Geographic Information Science BSc Honours</b>	F862	<b>A Level: ABB</b> Excluding General Studies and Critical Thinking. Preference will be given to applicants with mathematical, science-based or geography A Levels. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics grade B or 6 required if not offered at A or AS Level.  <b>International Baccalaureate: 34 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
<b>With Year in Industry BSc Honours</b>	F867	
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a>		
<b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222-223.		

**YOU MAY ALSO BE INTERESTED IN:** Civil Engineering; Combined Honours (Geography, plus up to two other subjects); Earth Science; Environmental and Rural Studies; Surveying and Mapping; Urban Planning

## Why Study With Us?

Our degrees offer choice, flexibility and specialisation, with a wide range of research-led areas of geography taught by our expert staff.

### League table ranking:

- ▶ top 10 in the UK – *The Times/Sunday Times Good University Guide 2018* (Geography and Environmental Science category)
- ▶ top 20 in the UK – *The Complete University Guide 2018* (Geography and Environmental Science category)
- ▶ 6th in the UK for student satisfaction (94% overall satisfaction score) – National Student Survey 2017
- ▶ top 50 – Geography category – QS World University Rankings by Subject 2017
- ▶ top 200 – Social Sciences category – *Times Higher Education* World University Rankings by Subject 2018
- ▶ 10th in the UK for research – Research Excellence Framework 2014

✓ **Professional accreditation\***: our Geography BA and BSc Honours degrees are accredited by the Royal Geographical Society (with IBG). Accredited degrees contain a solid academic foundation in geographical knowledge and skills, and prepare you to address the needs of the world beyond higher education.

Our Geographic Information Science degree is the only one of its kind in the UK to have dual accreditation from the Royal Institution of Chartered Surveyors (RICS) and the Chartered Institution of Civil Engineering Surveyors (ICES).

The first year (Stage 1) of our Geography and Planning degree is accredited by the Royal Town Planning Institute (RTPI). Some students particularly enjoy the planning element of this degree and decide they'd like to become a town planner. The accredited first year means you're eligible to transfer to our Master of Planning or Urban Planning degree if this is something you decide you'd like to pursue.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

✈ **Study abroad**: you have the opportunity to gain an international perspective on your subject by taking part in a study abroad exchange. See page 16 for more information.

📅 **Benefit from a year in industry**: on our Geographic Information Science degree, between Stages 2 and 3, spend a year on a paid industrial placement, where you'll gain first-hand experience of working in industry. You'll put your learning into practice and test and develop your professional expertise. You'll develop valuable workplace skills such as communication, teamwork and project management. Securing a placement will be your first step in the transition from study to employment and there is support to help you identify opportunities, write your CV and make applications.

📅 **Boost your CV with a work placement**: apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

🎓 **Choose from a range of flexible or specialist degrees**: whatever your interests and plans, we have a degree to suit you, from broad-based degrees to more specialist areas.

👨🎓 **Learn from leading experts**: graduate with the latest subject knowledge thanks to research-led teaching that incorporates the discoveries of our research-active staff.

🌍 **Gain practical skills through fieldwork**: opportunities vary between degrees but include locations such as Barcelona, Berlin, Borneo, Copenhagen, Cyprus, Hong Kong, Morocco, Iceland, New Zealand and Ireland.

🔬 **Develop your own research project**: supported by staff members, design and undertake a research project on a topic that you choose.

✈ **Travel overseas on an expedition**: apply for funding for a student-led research expedition abroad. Recent expedition destinations include Greenland, Iceland, Svalbard and Chile.

👥 **Join our vibrant geography community**: enjoy an extended induction programme to help you settle in, plus close interaction with teaching staff, your personal tutor, a student mentor and our highly active student society.

🌐 **Understand the changing world**: gain specialist and transferable skills to address key societal, economic and environmental challenges. You'll be able to work all over the world applying, analysing, managing and creating geographic data and products.

🇬🇧 **DTUS sponsorship**: our Physical Geography degree and our Geographic Information Science degree are approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)

## Geography

BA Honours | L701 | 3 years | ✓📅✈

BSc Honours | F800 | 3 years | ✓📅✈

These degrees offer an extremely flexible study programme with the option to specialise in human geography, physical geography, or study a combination of both.

**Stage 1**: We introduce you to some of the key issues facing our world, such as the effects of social and economic change, the impacts of globalisation, geopolitics and uneven development, climate and environmental change, natural hazards, and water resources. You also explore a range of key themes in human and physical geography. Up to a third of your modules are optional and can include a module in modern languages, history, politics or mapping. There is also an optional residential physical geography field trip to the Lake District.

**Stage 2**: You have a choice of destinations for your Stage 2 residential field course, currently including Barcelona, Borneo, Berlin, Copenhagen, Cyprus, Hong Kong, Iceland, Ireland, New Zealand and Morocco.

You study a module in advanced research techniques and choose a module in either key methods for human geographers or key methods for physical geographers.

Your remaining topics are optional, giving you the chance to engage with our cutting-edge research in areas such as: water and river science; political geography; social geography; glacial environments; economic geography; globalisation, culture and development; and reconstructing Quaternary environments.

**Stage 3**: Stage 3 modules enable you to develop an in-depth knowledge of both global and local issues. You have a wide choice of optional modules that are directly linked to the research work of our staff. Areas include: applied geomorphology and natural hazards; local and regional development; global water resources; international and historical perspectives on race; geopolitical thought and practice; polar environments; the geographies of money; Caribbean societies; geographies of sustainability; palaeoclimates; and tectonic geomorphology.

A dissertation gives you the chance to develop your own research study, supported by an academic member of staff. Other modules available include a work placement.

At Stage 2 or 3 you may also undertake a five-month exchange at one of our partner institutions in Europe, (some of which teach in English), or beyond (for example, America, Australia, Singapore).

## Your Future Career

Our graduates are working in a range of roles, including: management roles with companies such as Barclays, Unilever, Nissan and KPMG; accountants; bankers; computer programmers; teachers; research assistants; environmental consultants; surveyors; consultants; GIS and data analysts; within specialist land, air and offshore mapping companies; and as civil engineering contractors.

Others specialise in particular areas of geography by taking a Master's degree or PhD, and an increasing number travel abroad, in some cases doing voluntary work, before taking the next step in their career. Organisations that have recently recruited our graduates include: the Scientific Civil Service; the Department for Business, Innovation and Skills; Raleigh International; the armed forces; the NHS; the Environment Agency; the British Council; Natural England; the Scottish Wildlife Trust.

Our 2016 Geography BA Honours graduates are working in roles such as: junior land consultant; Investing in Children project worker; assistant flood risk consultant; Environment Agency technical assistant; and graduate trainee surveyor.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Geography BA Honours leavers, within six months of graduating)





## Physical Geography

BSc Honours | FH82 | 3 years |  

This degree is focused purely on physical geography. It produces well-rounded geography graduates, who have a deep understanding of the processes that shape our planet and how they impact on human activities. You will become skilled in an array of techniques for investigating and understanding the natural environment. The course has a wide range of module options and a strong emphasis on fieldwork in the UK and overseas.

**Stage 1:** You explore a broad range of global environmental issues (for example, climate change, water resources, natural hazards) alongside physical geography concepts and techniques. You gain a broad introduction into the methods used by physical geographers to investigate and understand how environments and landscapes evolve and change (including mapping, coring, surveying and GIS analysis). You put this training into practice during a residential field course in the Lake District.

**Stage 2:** You deepen your understanding of physical geography, with a wider choice of topics and modules, and research training for your Stage 3 dissertation. Modules currently available include: key methods in physical geography; reconstructing Quaternary environments; aquatic pollution; glacial environments; rivers; surveying; photogrammetry and laser scanning.

A residential field trip, preparing you for your final-year dissertation, is a key Stage 2 module. Current destinations include New Zealand, Iceland, Morocco and Ireland.

**Stage 3:** You have a choice of optional modules and complete a dissertation. The dissertation represents a third of your study, giving you the chance to undertake your own piece of research and investigation. Specialist optional modules, closely linked to the research interests of our staff members, provide cutting-edge insights into exciting areas of physical geography.

Modules include: tectonic geomorphology; polar environments; global water resources; applied geomorphology and natural hazards; palaeoclimates; and geohazards.

*'We have some modules which support our transition from students to graduates and encourage us to think about transferable skills that we have gained from our degree.'*

*'There is also a fieldwork module – I'm going to Hong Kong; I'm really excited!'*

Sarah, Geography BA Honours

## Geography and Planning

BA Honours | LK74 | 3 years |  1st year only  

This degree integrates core areas from our geography and urban planning degrees. It includes a broad range of theory and practice, from building design to mapping science, and from global social and economic change to local environmental initiatives. The balance of human geography and planning topics is aimed at developing graduates with strong analytical skills and practical implementation abilities.

**Stage 1:** We introduce you to the four key themes that are followed throughout the degree:

- ▶ **social and cultural development**, concerned with understanding the social forces that are reshaping our society
- ▶ **urban and regional development**, exploring the changing patterns of urban and regional activity
- ▶ **planning**, examining the processes and practices of public planning and design control
- ▶ **education and learning**, comprising a series of practical modules designed to enhance learning

This Stage is accredited by the Royal Town Planning Institute (RTPI). Successful completion of Stage 1 means you may be able to transfer to Stage 2 of our Urban Planning BA Honours degree or Master of Planning degree, which offer a more direct route to a career as a planner (see page 212).

**Stages 2 and 3:** The study themes continue. You can specialise by choosing topics from one theme in both years, or maintain a breadth of study by choosing topics from multiple themes. You undertake research training and follow modules designed to develop your employment skills. In Stage 3, you complete a dissertation on a topic of interest to you. This gives you the chance to develop and demonstrate your social science research skills.

## Geographic Information Science

BSc Honours | F862 | 3 years |  

**With Year in Industry**

BSc Honours | F867 | 4 years |  

This degree focuses on the systems and software for analysing geographic data about the world around us. It will appeal to students with an interest in technology, mapping, geography and the environment. Using the latest cutting-edge technology, you will be working with data collected using mapping technology such as digital surveying and satellite imagery, which is the focus of our Surveying and Mapping Science degree (see page 208).

GIS is a rapidly growing sector. Geospatial technologies are utilised in a wide range of industries from retail stores, utility companies, environmental and transport consultants, to multinational energy and infrastructure companies. Our strong industry links and annual careers fair help you to find sponsorship opportunities, work placements and excellent graduate jobs.

**Stage 1:** You study alongside our Surveying and Mapping Science students and explore a wide range of geographic techniques including: land surveying; GPS; satellite imagery; and Geographic Information Systems, often through practical and outdoor work. This year is very hands on, with plenty of opportunities to start using our state-of-the-art equipment, particularly on our residential field course in the Lake District. You will also learn the fundamental mathematical techniques required to analyse and process geographic data.

**Stage 2:** You undertake more advanced studies in GIS and develop your knowledge of how it is used to collect, manage and analyse geographical data in a range of different jobs and application areas. You will deepen your knowledge of GIS theory and learn to use informatics tools to manage, manipulate and visualise that data.

**Year in Industry:** Between Stages 2 and 3, students on our Year in Industry degree undertake a professional placement in the relevant sector, see page 134.

**Stage 3:** The year starts with a field course that gives you the chance to use professional GIS software and field equipment. You then undertake a set of advanced GIS modules that covers emerging, cutting-edge industrial techniques, approaches and applications, including a specialist module in geospatial informatics. A major aspect of Stage 3 is the independent research project that you develop throughout the year and which forms a quarter of the final-year assessment.



Degree	UCAS	Entrance requirements
<b>History BA Honours</b>	V100	<b>A Level: AAA–AAB</b> Including A in History. Applicants offering a modern language are welcomed. General Studies accepted.  <b>International Baccalaureate: 35–37 points</b> History required at Higher Level, at grade 6 or above.
<b>Politics and History BA Honours</b>	VL12	<b>A Level: AAA–AAB</b> Usually including History (AS Level History required if not offered at A Level). General Studies accepted.  <b>International Baccalaureate: 35 points</b> Preferably with grade 6 or above in History at Higher Level.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)  
**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Ancient History and Archaeology; Archaeology; Classics and Ancient History; Combined Honours (History, plus up to two other subjects); English Literature and History; History and Archaeology

## Your Future Career

Areas our graduates enter include: finance; management; information; education; human resources; media; marketing; and legal services.

Our graduates also work in commercial management and administrative roles in the public, private and charity sectors. You can use your knowledge of history in sectors including publishing, information management, archives and museums, or by engaging in further research.

Our 2016 History BA Honours graduates are working in roles such as: artist manager; bid co-ordinator; history teacher; content writer; and police community support officer.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate History BA Honours leavers, within six months of graduating)



## Why Study With Us?

Explore the diversity of human history through a wide choice of topics that spans continents and centuries.

### League table ranking:

- ▶ 91% overall student satisfaction score – National Student Survey 2017
- ▶ top 200 – Arts and Humanities category – *Times Higher Education* World University Rankings by Subject 2018
- ▶ top 200 – History category – QS World University Rankings by Subject 2017

**Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

**Study abroad:** you have the opportunity to gain an international perspective on your subject by taking part in a study abroad exchange. See page 16 for more information.

**Learn from experts:** choose from a wide range of modules shaped by the research discoveries of our expert staff, covering a variety of countries and historical periods.

**Make the region your classroom:** enjoy access to one of the highest concentrations of heritage sites in the world on your doorstep, including more castles than any other region in England. See history come to life around you, from Hadrian's Wall to the post-industrial regeneration of Newcastle's Quayside area.

*'Lecturers and support staff are firmly engaged with students on their courses. Contact hours have proven to be extremely useful in my second year as they allow me to gain a personal relationship with Faculty members who are keen to offer insights into any issues I am experiencing.'*

Dylan, History BA Honours

**Access fantastic resources:** including one of the best university library services in the country with historical special collections dating back to the mid-15th century.

**Enjoy flexibility and choice:** shape your degree to suit your interests with topics from other subjects, such as archaeology, classics, politics, philosophy or a modern language.

**Access world-class treasures in the University museum:** the Great North Museum: Hancock includes spectacular objects from Ancient Greece and Rome and an entire gallery of ethnographic material from across the globe, plus a resource-rich specialist library.

**Join a supportive community:** we run a student mentoring scheme and 'get to know' events as part of the student-run History Society, all designed to help you settle in to University life. Our close-knit community ensures you won't feel lost in the crowd.





## History

BA Honours | V100 | 3 years |  

This degree will open your mind to the past, present and future, with topics that stretch from the birth of civilisation up to the present day. We have one of the most comprehensive and broad history degrees available, with flexibility to choose the options that fascinate you most from our wide range of modules. You can also select topics outside history, such as archaeology, classics, politics, philosophy or a modern language. Languages are particularly useful if you want to become a professional historian.

**Stage 1:** The first year is structured to give you a firm grounding in the techniques of historical investigation, interpretation and analysis, and to introduce you to a variety of historical themes, geographical areas and periods. Half of your topics are optional and your choice includes aspects of British history, themes in European history and the history of the Americas, as well as topics from other subjects.

**Stage 2:** You have the freedom to follow your own interests from an extremely broad choice of modules. Topics span centuries and continents, for example: the Dark Ages; Atlantic slave trade; society and politics in colonial India; the Soviet experiment; Islam; history of western medicine; Greece from ancient times to the 21st century; the Habsburg empire; and the history of contemporary Britain.

**Stage 3:** You choose from several special subjects. These involve the detailed examination of a specific historical topic and are based largely on original documents. Topics to choose from might include: Viking-Age Scandinavia; Elizabeth I; the American Civil War; China in Revolution; the Irish Revolution; civil rights in America; or Nazi new order in Europe.

You also write a source-based dissertation, for which you receive individual supervision from a member of staff. You are encouraged to choose your own topic, taking advantage of our very wide variety of research expertise and supervision.

## Politics and History

BA Honours | VL12 | 3 years |  

This degree allows you to combine your interests in history and politics, dividing your time equally between the two. You'll have a choice of topics including British, European, American and world history, and international politics and political thought. You can choose to concentrate on different areas of the world from both a historical and a political perspective, or develop your interest in particular approaches to the study of history or politics.

**Stage 1:** We introduce you to a range of methodological techniques and historiographical traditions relating to the study of politics and history. You then choose from a wide range of history and politics topics. In history these include British, European, American and world history. In politics you cover introductory modules in international politics, the politics of the UK and EU, and political thought.

**Stages 2 and 3:** You continue to choose topics in both history and politics that span centuries and continents. Current topics in history include: the Dark Ages; Atlantic slave trade; 20th-century Spain; the Soviet experiment; China's last empire; civil rights in America; and the European Enlightenment.

In politics your choice currently includes: the government and politics of the USA; the politics and policy of the European Union; critical international politics; the politics of Africa; and contemporary Russian politics.

You have the chance to take a history special subject in Stage 3, which is based on the investigation and analysis of primary source materials. You may choose to write a dissertation in either politics or history, developing skills in critical analysis, communication and research.

## Law

Degree	UCAS	Entrance requirements
<b>Law LLB Honours</b>	<b>M101</b>	<b>A Level: AAA</b> Excluding General Studies. <b>International Baccalaureate: 34 points</b> With three subjects at Higher Level grade 6 or above.
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a> <b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222–223.		


## Why Study With Us?


Newcastle Law School offers you the highest quality of legal education in a supportive and friendly environment.

### League table ranking:

- top 20 in the UK – *The Complete University Guide 2018*

 **Study a qualifying law degree:** providing the first step to a career as a solicitor or barrister. Our degree is recognised as a qualifying law degree by the Solicitors Regulation Authority and accredited by the Bar Standards Board. This means it provides exemption from the first part of the legal professional examinations for England and Wales, allowing you to progress directly to the Legal Practice Course (LPC) for solicitors or the Bar Professional Training Course (BPTC) for barristers on graduation. We also offer the subjects required for entry by the Institute of Professional Legal Studies, Northern Ireland.

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

 **Study abroad:** you can broaden your academic experience by applying at the end of your first year to join one of our qualifying law degrees which include a year abroad – either the Law (European Legal Studies) or Law (International Legal Studies). These four-year degrees involve spending your third year studying law at one of our highly regarded international partner universities.

The European degree offers exchange places with KU Leuven (Belgium), the University of Copenhagen (Denmark), the University of Groningen (the Netherlands), the University of Oslo (Norway), and the University of Pompeu Fabra (Barcelona, Spain) through the Erasmus+ exchange programme.

The international degree offers exchange places at the National University of Singapore, the University of Hong Kong and the University of California, Davis.

All of our partners teach in English so language skills are not required. Successful completion of this year is recognised in your degree title on graduation: either Law LLB Honours (European Legal Studies) or Law LLB Honours (International Legal Studies). Places are available on a competitive basis. See page 16 for more information.

**Wide range of topics shaped by our research expertise:** ensuring you gain the very latest subject knowledge, as well as having the freedom to follow your own legal interests.

**Flexibility to choose final-year modules from outside the Law School:** from areas such as modern languages, English, business or history.

**Highly active student society:** the Eldon Society and a student-run law review provide the opportunity to have your work published.

**Pro bono initiatives:** develop key skills such as teamwork, leadership, legal research, presentation and public speaking, while making a worthwhile contribution to the local community or helping provide vital services to people in real need.

**Enhance your employability:** meet prospective employers at our annual law careers fair and develop professional skills such as client interviewing, client negotiations and legal argument through our annual mooting competition.

## Law

LLB Honours | M101 | 3 years |   

This degree offers rigorous academic training in the principles of English law. All the modules in Stages 1 and 2 are compulsory to cover the essential foundation subjects in law (and gain exemption from the first part of the legal professional examinations).

You will have lots of opportunities to meet legal professionals and build contacts. From induction week onwards we bring law firms to you, to give you up-to-date advice and to answer your questions. Solicitors from local firms judge the performance of every first-year student in the Law School's client interviewing competition, helping you hone your legal skills from the outset of your studies. We also organise an annual law careers fair, in conjunction with the Careers Service, giving you the opportunity to establish relationships with legal employers.

**Stage 1:** This Stage covers a thorough grounding in contract law, public law and land law. Through our legal institutions and method module, we introduce you to the nature of the judicial process in England and Wales, and the structure of the courts and tribunals. You also develop and practise the core professional legal skills, including interviewing clients and using legal databases, which will be useful in your future career.

**Stage 2:** You continue to study foundation legal subjects: criminal law, general principles of tort, EU law and equity. By the end of Stage 2 you will have completed the seven foundation modules of legal professional qualification, giving you the freedom to explore the areas of law that interest you most for the remainder of your degree.

**Year abroad:** Students who have secured a place on our European Legal Studies or International Legal Studies pathway spend a year studying law at one of our prestigious partner universities overseas. This extends your degree by a year. See [Study abroad](#), page 141.

**Stage 3:** You choose from our wide range of research-informed topics in areas such as: competition law; company law; copyright law; criminology and criminal justice; employment law; evidence; human rights law; law, gender and sexuality; terrorism and counterterrorism law; family law; succession; environmental law; public international law; US constitutional law; medicine and the law; law and literature; and legal theory. While not all elective modules run every year, we always offer a wide and varied suite of modules that deliver research-led teaching on topical, stimulating and useful subjects. You can also choose to write a dissertation focused on your own research project.

## Your Future Career

Many of our graduates pursue a legal career. You'll receive plenty of support from us to prepare for this. Others have gone on to careers in areas including marketing, accountancy, sales and the Civil Service.

Our 2016 Law LLB Honours graduates are working in roles such as: legal adviser; legal analyst; legal assistant; legal researcher; and paralegal litigation executive.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Law LLB Honours leavers, within six months of graduating)

**TOP 20  
IN THE UK  
FOR LAW**

The Complete University  
Guide 2018

# Marine Sciences

Degree	UCAS	Entrance requirements
Marine Biology BSc Honours	C161	<b>A Level: AAB–ABB</b> Including Biology or Human Biology and another science subject from: Chemistry, Mathematics, Physics, Geography, Geology, Environmental Science, Psychology, IT, PE and Design & Technology. General Studies and Critical Thinking are excluded. Chemistry preferred at A/AS Level but not essential. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. Mathematics required at GCSE (minimum grade B or 6).  <b>International Baccalaureate: 34–35 points</b> Preferably including Biology at Higher Level grade 6. Chemistry preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 5 if not offered at Higher Level.
Marine Biology and Oceanography BSc Honours	CF17	
Marine Zoology BSc Honours	C350	

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Biology and Zoology; Environmental and Rural Studies; Marine Technology

## Your Future Career

The marine environment provides opportunities in areas such as: renewable energy; pharmaceutical research and development; fisheries science; the oil and gas industries; ecotourism and leisure industries.

Our graduates find work in a range of roles and organisations, such as:

- ▶ government agencies, like the Marine Management Organisation (MMO), Centre for Environment, Fisheries and Aquaculture Science (Cefas), the Joint Nature Conservation Committee (JNCC) and Natural England
- ▶ coastal conservation and marine nature reserves
- ▶ with the EU as scientific observers on fishing vessels
- ▶ environmental charities, raising awareness about marine issues
- ▶ environmental consultancy firms and Cefas, which are major employers of marine scientists wishing to pursue careers in research

Our graduates also go on to work in coral reef conservation, environmental education and to help developing countries grow tourism industries sustainably.

**PRACTICAL  
FIELDWORK  
OPPORTUNITIES  
ON OUR PRINCESS  
ROYAL RESEARCH  
VESSEL**



## Why Study With Us?

We equip you for a profession in a growing job sector where climate change, sea-level rise, pollution and overexploitation are just some of the issues challenging our ability to manage our oceans sustainably.

### League table ranking:

- top 200 – Earth and Marine Sciences category – QS World University Rankings by Subject 2017

✓ **Professional accreditation\***: Our courses are accredited by the Institute of Marine Engineering, Science and Technology (IMarEST) on behalf of the Science Council for the purposes of fully meeting the academic requirement for registration as a chartered scientist and chartered marine scientist.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course:

[www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

**Gain practical experience:** we put a strong emphasis on developing your practical skills through regular laboratory and field classes.

**Study living organisms of all sizes:** from marine microbes to whales, so you gain a complete understanding of how marine life is affected by the physical and chemical environment.

**Develop seagoing skills on our research vessel:** take plankton hauls, seabed surveys and experiment with the latest oceanographic technology.

**Work in dedicated, specialist facilities:** our Dove Marine Laboratory (on the coast, just 20 minutes from Newcastle city centre) has aquarium facilities, specialised laboratory space and easy access to a varied coastline. You'll benefit from unrivalled opportunities to experience a range of coastal habitats, sea birds and marine mammals.

**Enjoy residential field trips:** put your learning into practice with two residential field courses, including a final-year overseas field trip to plan a research investigation and conduct independent research to a professional standard.

**Conduct research abroad:** choose to carry out your final-year research project abroad, with the possibility of incorporating scuba-diving-based research or observing dolphins and whales.

**See marine management in action:** through our close links with industry and government agencies.

**Get the skills needed to become a professional marine scientist:** with our unique marine-specific graduate employability skills module.

## Marine Biology

BSc Honours | C161 | 3 years | ✓📅

This degree provides you with a comprehensive understanding of human interaction with the marine environment. You'll study all marine life, from marine bacteria to large invertebrates and mammals. We place particular emphasis on humankind's relationship with the marine environment, as well as how we can achieve sustainable management of this precious ecosystem.

**Stage 1:** We introduce you to the biology of marine animals with a particular emphasis on invertebrates, fish, seabirds and marine mammals. You also learn about the plants, algae and cyanobacteria that provide the foundation of almost all marine food webs. You explore the chemical and physical properties of the oceans, and their impact on marine life, as well as the major ecosystems in the marine environment. You gain practical experience through laboratory classes and fieldwork, including opportunities aboard the University's research vessel. You also undertake a residential field course to help gain an appreciation of UK marine biodiversity.

**Stage 2:** We place special emphasis on issues connected with marine protection, such as the fouling of marine structures and marine pollution. We present you with examples and case studies from a range of different marine organisms and habitats and challenge you to think critically about the particular traits and contexts of each. We use field-based practicals to support this, to help you appreciate the diversity of habitats around the UK. You undertake a research and employability skills module, which gives you the chance to engage in 35 hours of work-based learning with a professional organisation in the marine sector.

**Stage 3:** You continue your advanced and independent study in marine biology, including the chance to study topics at the forefront of marine sciences research. You carry out your own individual research project in the UK or abroad, giving you the chance to gain an in-depth knowledge of an area of marine biology that particularly interests you.

## Marine Biology and Oceanography

BSc Honours | CF17 | 3 years | ✓📅

This degree places a strong emphasis on understanding the physical and chemical environments in which marine organisms live. By combining the study of oceanography with marine biology you gain a deeper understanding of ocean currents, waves, and the fluxes of chemical substances and physical properties within the ocean and across its boundaries. You also study the role biological organisms play in these important processes, and in energy and biomass transfer through the ocean system. This is a crucial topic in an era of climate change.

**Stage 1:** The oceanography aspect starts with an introduction to tides, heat budgets and the factors affecting life in the oceans. We also introduce you to the complexities and problems associated with introducing manmade structures into the marine environment. You gain practical experience through laboratory classes and fieldwork, including opportunities aboard the University's seagoing research vessel, which is equipped with specialist oceanography equipment. You also share many topics in common with our marine biologists, concentrating on the biology of marine plants and animals, marine biodiversity and marine ecosystems.

**Stage 2:** You begin to focus on the science of oceanography, with modules exploring the key biogeochemical processes in estuaries and coastal seas, and the global distribution of marine life in the world's oceans. You also study issues connected with marine protection, including marine pollution and the fishing industry. We use field-based practicals to support this. You undertake a residential field course, developing essential skills and deepening your appreciation of the UK's marine biodiversity. You can work with professional oceanographers and technologists during a work placement as part of the graduate employability skills module.

**Stage 3:** You continue your advanced and independent study in marine biology and oceanography, including the chance to study topics at the forefront of marine sciences research. You carry out your own individual research project in the UK or abroad, giving you the chance to gain an in-depth knowledge of an area of marine biology or oceanography that particularly interests you.

## Marine Zoology

BSc Honours | C350 | 3 years | ✓📅

It is important for us to understand the biology and function of marine animals if we want to understand how to conserve and protect them. In this degree, you concentrate on the study of animals in the marine environment – from single-celled organisms right up to the largest mammal on Earth, the blue whale. This degree has a stronger emphasis on genetics, cellular and sub-organism processes than our other two marine sciences degrees, as well as providing an understanding of the marine environment in which animals thrive.

**Stage 1:** You study topics in marine zoology and biology that deal with the form, function and classification of marine animals. You also focus on cell biology and genetics, marine ecosystems and biological oceanography. You gain practical experience through laboratory classes and fieldwork, and a small group tutorial system provides training in essential research skills. You undertake a residential field course to develop essential skills and gain an appreciation of the UK's marine biodiversity.

**Stage 2:** We place special emphasis on topics such as: the adaptations of marine organisms to life in tropical and extreme environments; molecular biology and genomics; and field and laboratory techniques. You will study creatures of all types and sizes, from zooplankton to marine mammals and birds. You'll also develop an appreciation of emerging issues in marine sciences and the use of information technology. An internship with an outside organisation gives you practical work experience in the sector.

**Stage 3:** You continue your advanced and independent study in marine zoology, including the chance to study topics at the forefront of marine sciences research. You carry out an individual research project under the supervision of a member of staff, which counts for one third of your time throughout the final year. This can involve laboratory work or fieldwork, computer-based study or use of the University's research vessel.

# Marine Technology

Degree	UCAS	Entrance requirements
<b>Marine Technology with Marine Engineering BEng Honours</b>	H504	<b>A Level: AAB–ABB</b> Including Mathematics and at least one of Physics, Chemistry or Further Mathematics, but excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels we require a pass in the practical element. GCSE Physics or Dual Award Science (minimum grade B or 6) required if Physics not offered at A or AS Level.
<b>Marine Technology with Naval Architecture BEng Honours</b>	H502	
<b>Marine Technology with Offshore Engineering BEng Honours</b>	H355	
<b>Marine Technology with Small Craft Technology BEng Honours</b>	H520	<b>International Baccalaureate: 34–35 points</b> With Mathematics and at least one of Physics or Chemistry at Higher Level grade 5 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.
<b>Marine Technology with Marine Engineering MEng Honours</b>	H501	<b>A Level: AAA</b> Including Mathematics and at least one of Physics, Chemistry or Further Mathematics, but excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels we require a pass in the practical element. GCSE Physics or Dual Award Science (minimum grade B or 6) required if Physics not offered at A or AS Level.
<b>Marine Technology with Naval Architecture MEng Honours</b>	H503	
<b>Marine Technology with Offshore Engineering MEng Honours</b>	H356	
<b>Marine Technology with Small Craft Technology MEng Honours</b>	H524	<b>International Baccalaureate: 37 points</b> With Mathematics and at least one of Physics or Chemistry at Higher Level grade 6 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Foundation Year:** if you don't have the right mathematics and/or science qualifications for direct entry, you will be considered for a foundation year. See page 119 for details.

**Pre-Entry Mathematics Course:** if you don't have the required mathematics qualifications, you may be invited to take our Pre-Entry Mathematics Course to develop the mathematical skills needed to study your degree. Find out more online in the Entry Requirements tab of your chosen degree.

**International students:** we offer Marine Engineering, Offshore Engineering, and Naval Architecture BEng Honours degrees in Singapore. [www.ncl.ac.uk/singapore/study](http://www.ncl.ac.uk/singapore/study)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Chemical Engineering; Civil Engineering; Electrical and Electronic Engineering; Engineering Foundation Programmes; Marine Sciences; Mechanical Engineering

## Why Study With Us?

We apply science and engineering principles to study technologies operating on or in an ocean environment.

✓ **Professional accreditation\*:** our degrees are professionally accredited by the Engineering Council through the Royal Institution of Naval Architects (RINA) and the Institute of Marine Engineering, Science and Technology (IMarEST). This means future employers will recognise the quality of your degree because it meets high professional standards. It also means both our BEng and MEng degrees provide a pathway to becoming a chartered engineer, chartered scientist, chartered marine scientist or an incorporated engineer.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

**Enjoy tuition from international experts:** our expert academic staff bring their internationally renowned research expertise into lectures and tutorials, so you graduate with the latest specialist knowledge.

**Learn in specialist facilities:** use our unique facilities for project work and your dissertation, including a cavitation tunnel for testing propellers, a towing tank for ship model experiments and a wind-wave-current tank for simulating a complete offshore environment. Our unique large-scale laboratories help you learn and understand concepts taught in class.

**Network with professionals:** we offer networking opportunities through our close connections to industry and professional marine organisations. We also organise a marine careers fair every year, attracting graduate recruiters such as Lloyd's Register, Babcock, BP, BAE Systems and the Royal Navy.

**Join a vibrant global community:** we have staff and students representing over 50 nationalities, helping you to develop valuable international connections.

**Investigate engineering subjects that are applied to marine technologies:** including cargo ships, cruise liners, racing yachts, offshore platforms and wind turbines.

**DTUS sponsorship:** our marine technology degrees are approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)

## Your Future Career

Our graduates work in the marine industry or in other disciplines, such as mechanical engineering, finance and management. Many graduates work in the ship and offshore construction industry or with shipping and offshore companies as engineering specialists or managers. There is a steady demand for degree-qualified marine engineers, naval architects, experts in computer-aided design, production specialists and managers.

Many of these roles are based in multinational companies, which allows for an international career.

Government departments, classification societies and various regulatory agencies and consultants regularly employ our graduates in roles such as surveyors, researchers and in policy development.

The development of deep-water oil and gas recovery has increased demand for engineers specialising in the design and operation of offshore vessels and processing plants. Offshore renewable energy generation is also an emerging specialisation.

STUDY A  
PROFESSIONALLY  
ACCREDITED  
DEGREE



## What You Will Study

**Stages 1 and 2:** All Marine Technology students study the same topics for the first two years, giving you time to learn fundamental engineering principles in a marine context. This also gives you an excellent opportunity to see where your interests lie before you specialise later in your programme.

To ensure you have a firm foundation in engineering principles we cover topics in core subjects, including mechanics, thermodynamics, mathematics and fluid mechanics, which we relate to the broad scope of marine technology.

One of our strengths is that we teach engineering in a marine context right from your very first year, through specialist topics such as: naval architecture; marine engineering; materials in the marine environment; and marine mechanics.

**Stage 3 and beyond:** Core modules are shared by all of our Marine Technology students, to continue to develop your knowledge of the essentials of the subject. You also study more specialist modules specific to your degree choice. These build on your skills and knowledge in areas such as marine structures, naval architecture, hydrodynamics and marine systems.

In Stage 3 you complete a dissertation project focused on your degree specialisation. In Stage 4 you will form part of an interdisciplinary team to complete an extensive group project which challenges your technical and professional skills.

Transfer between marine technology degree specialisms is possible up to the end of the second year (Stage 2).

Transfer from a BEng to one of our MEng degrees is possible up to the end of the third year (Stage 3) if you achieve the appropriate academic standard.

### Marine Technology with Marine Engineering

**BEng Honours | H504 | 3 years** | 

**MEng Honours | H501 | 4 years** | 

Marine engineers focus on the engineering systems that keep a ship or offshore structure running, from the main propulsion machinery to the auxiliary systems including pumps, power, water, air and hydraulic systems.

Marine engineers are increasingly challenged to develop advanced alternative power systems that are eco-friendly, ultra-efficient and reliable.

Our professionally accredited Marine Engineering degrees give you the expert knowledge to design specialist systems demanding the latest technologies.

You first learn fundamental marine technology principles in Stages 1 and 2. In Stage 3 you study specialist modules including: marine engineering; marine engineering design; and dynamic modelling and simulation. You also complete a marine engineering-focused individual project where you can research in depth a subject of your choice.

The MEng degree continues in Stage 4, a further year of study, which deepens your marine engineering skills to Master's level. You take further specialist modules including: ship performance at sea; marine power systems; marine condition monitoring; and marine machinery systems.

In Stage 4 you also work on a final group design project that equips you with technical and professional-standard skills that lead directly to chartered engineer status (see [Professional accreditation](#), page 147).

### Marine Technology with Naval Architecture

**BEng Honours | H502 | 3 years** | 

**MEng Honours | H503 | 4 years** | 

Naval architects focus on all aspects of the design and operation of ships and other large floating structures. This requires a broad engineering knowledge to ensure the ship is safe, efficient and aesthetic.

Naval architects work on a huge variety of different concepts, which meet the latest global challenges to ensure goods and people are transported safely around the world and with minimum impact on the environment.

Our professionally accredited Naval Architecture degrees give you the specialist knowledge to design the latest ships with new and advanced technologies.

You first learn fundamental marine technology principles in Stages 1 and 2. In Stage 3 you study specialist modules including: ship design; marine structures; and ship hydrodynamics.

In Stage 3 you will also complete a naval architecture-focused individual project where you can research in depth a subject of your choice.

The MEng degree includes a further year of study, which deepens your naval architecture skills to Master's level. You take further specialist modules including: ship performance at sea; advanced hydrodynamics; advanced naval architecture; and advanced marine structures.

In Stage 4 you also work on a final group design project that equips you with technical and professional-standard skills that lead directly to chartered engineer status (see [Professional accreditation](#), page 147).

### Marine Technology with Offshore Engineering

**BEng Honours | H355 | 3 years** | 

**MEng Honours | H356 | 4 years** | 

Offshore engineers focus on the design and operation of fixed and floating structures which service the offshore energy industry.

Offshore engineers require knowledge of key engineering skills applied to industry-specific problems. They take on some of the most important challenges of today, including the development of offshore renewable energy and ultra-deep water operations.

Our professionally accredited Offshore Engineering degrees give you the specialist knowledge to design the latest technologies for application in shallow and deep-water ocean environments.

You first learn fundamental marine technology principles in Stages 1 and 2. In Stage 3 you study specialist modules including: offshore design; marine structures; and offshore engineering.

In Stage 3 you also complete an offshore engineering-focused individual project where you can research in depth a subject of your choice.

The MEng degree includes a further year of study, which deepens your offshore engineering skills to Master's level. You take further specialist modules including: mooring riser and drilling systems; advanced marine structures; advanced hydrodynamics; and hydrocarbon production and process engineering.

In Stage 4 you also work on a final group design project that equips you with technical and professional-standard skills that lead directly to chartered engineer status (see [Professional accreditation](#), page 147).

### Marine Technology with Small Craft Technology

**BEng Honours | H520 | 3 years** | 

**MEng Honours | H524 | 4 years** | 

Small craft are specialist marine products which often have to perform in the most demanding environments. Hydrofoiling racing yachts, eco-friendly fishing vessels, and the latest search and rescue lifeboats all require specialist thinking with regard to their design and operation.

Small craft form a significant and growing portion of the UK marine industry and engineers with specialist knowledge are in high demand.

Our professionally accredited Small Craft Technology degrees give you the specialist knowledge to design the latest high-speed and advanced boats with futuristic technologies.

You first learn fundamental marine technology principles in Stages 1 and 2. In Stage 3 you study specialist modules including: small craft design; marine structures; and small craft hydrodynamics.

In Stage 3 you also complete a small craft technology-focused individual project where you can research in depth a subject of your choice.

The MEng degree includes a further year of study, which deepens your small craft technology skills to Master's level. You take further specialist modules including: ship performance at sea; high-speed and advanced craft; advanced hydrodynamics; and advanced marine structures.

In Stage 4 you also work on a final group design project that equips you with technical and professional-standard skills that lead directly to chartered engineer status (see [Professional accreditation](#), page 147).

# Marketing

Degree	UCAS	Entrance requirements
Marketing BSc Honours	N500	<b>A Level: AAB</b>
Marketing and Management BSc Honours	NN52	Any subject combinations accepted excluding General Studies. GCSE Mathematics and English (minimum grade B or 6) required if not taken at A or AS Level. See online for additional information about further GCSE (or equivalent) requirements.
		<b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Accounting and Finance; Agri-Business and Food Management; Business Management; Economics; International Marketing and Management at Newcastle University London; Modern Languages and Business Studies; Nutrition with Food Marketing

## Why Study With Us?

Marketing is a dynamic subject that embraces psychology and consumer behaviour, management and innovation, and enterprise and entrepreneurship.

### League table ranking:

► 6th in the UK – *The Complete University Guide 2018*

✓ **Professional accreditation\***: both degrees are accredited by the Chartered Institute of Marketing (CIM). Our Marketing BSc Honours degree is also accredited by the Institute of Direct and Digital Marketing (IDM) allowing you to gain a professionally recognised qualification.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). You'll be supported by our dedicated Placement Officer, who works closely with the University's Careers Service to help you make the most of your skills and find the best opportunities. Find out more on pages 14–15.

✈️ **Study abroad:** you can study at one of our partner universities in Europe between Stages 2 and 3, through the Erasmus+ scheme. We also have partners outside of Europe. See page 16 for more information.

📖 **Choose a practical degree:** benefit from case study-led teaching and project work with our vocationally orientated degrees. We work closely with industry to keep our courses relevant in this fast-paced sector.

📚 **Strengthen your subject knowledge:** choose from a portfolio of optional modules to strengthen your knowledge of a particular topic or develop an area of specialism.

👥 **Act as a consultant:** take part in a team-based marketing consultancy project in your third year.

🌟 **Develop expertise and contacts to excel in your career:** we host a Career Development Week every year so that you can meet potential employers and explore possible careers.

## Marketing

BSc Honours | N500 | 3 years | ✓📅✈️

Study a professionally accredited degree that provides you with up-to-date knowledge of the latest marketing trends and develop the practical skills needed to succeed in this fast-paced industry.

This degree is highly vocational: you will learn theory in depth then apply it to the real world through case studies and applied projects linked to industry.

Marketing identifies, anticipates and satisfies customer needs and is integral to effective business strategy. It fuses psychology, management and consumer behaviour to maximise profit in a global marketplace.

**Stage 1:** You are introduced to core marketing and management knowledge and develop skills considered essential for a career in business and marketing. Topics include: ethics in marketing; marketing in practice; management and organisation; quantitative techniques necessary for modern business decision making; as well as critical perspectives on business growth. This Stage is taught in conjunction with our Marketing and Management BSc Honours degree.

**Stage 2:** You cover four compulsory modules that include core topics such as: market research methods; marketing communications; consumer behaviour; and strategic marketing. You also choose from a range of optional modules, allowing you to strengthen your knowledge of a particular marketing area or function, broaden your understanding of the subject area or develop an area of specialism.

**Work placement/study abroad (optional):** Spend a year between Stages 2 and 3 on a 12-month placement working in the UK or overseas, or studying abroad at one of our partner universities.

Our current placement students are in roles such as digital marketing trainee, marketing country sales intern, sales intern, and digital marketer, working on the following projects:

- Johnson & Johnson's e-commerce accounts, including Amazon and Google, advertising their products
- supporting the team with sales reports, assisting in the preparation of key account visits, and organising marketing events at Bosch
- providing support to the demand planning team, analysing market trends, studying and understanding the competition at Cummins
- working in close collaboration with the product manager on the digital strategy of beauty brands at L'Oréal

**Stage 3:** You complete a range of advanced modules and topics, including a dissertation or a consultancy project, and analytical techniques for marketing. For the consultancy project, you act as a consultant for a real-life company working on a challenge that it is currently experiencing. There are no compulsory modules at Stage 3. Optional modules enhance your specialist knowledge in areas such as: advertising; brand promotion; direct and digital marketing; and cultural and heritage marketing.

## Your Future Career

Our graduates work for globally recognised companies, including: Abercrombie & Fitch; Accenture; IBM; Mercedes-Benz UK; AkzoNobel; L'Oréal; Nintendo; Microsoft; and the HSBC Bank.

Our 2016 Marketing BSc Honours graduates are working in roles such as: commercial executive graduate; assistant brand manager; digital marketing co-ordinator; marketing and communications executive; marketing assistant; marketing management trainee; and social media manager.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Marketing BSc Honours leavers, within six months of graduating)

**6TH IN  
THE UK FOR  
MARKETING**

*The Complete University  
Guide 2018*



## Marketing and Management

BSc Honours | NN52 | 3 years |   

Prepare for a wide range of careers in marketing, business, management, or as an entrepreneur. This vocationally orientated degree combines business management with contemporary marketing theory and practice. You will apply theory to practice through experiential learning, which includes practical projects, consultancy, real-life business start-ups, as well as an optional work placement.

The marketing component will provide you with the relevant skills, knowledge and capabilities to become a professional marketer and your knowledge will be industry relevant and responsive to the latest marketing trends. The management component will provide you with the appropriate academic knowledge and practical skills should you decide to pursue a career in management or become an entrepreneur.

**Stage 1:** You are introduced to core marketing and management knowledge and skills considered essential for a career in business. These include: marketing in practice; ethics in marketing; management and organisation; quantitative techniques necessary for modern business decision making; as well as critical perspectives on business growth. This Stage is taught in conjunction with our Marketing BSc Honours degree.

**Stage 2:** You study four compulsory modules that include core topics such as: business and marketing research methods; human resource management; consumer behaviour; and services operations strategy and management. You also choose from a range of optional modules, allowing you to strengthen your knowledge of a particular marketing area or function, advance your understanding of the subject area or develop an area of specialism.

*'All of my lecturers are very knowledgeable in their respective fields. Most have worked in industry before academia and, as a result, provide an informed view of the topic.'*

Cassandra, Marketing and Management BSc Honours

**Work placement/study abroad (optional):** Spend a year between Stages 2 and 3 on a 12-month placement working in the UK or overseas, or studying abroad at one of our partner universities.

Our current placement students are in roles such as marketing intern, sales intern, retail placement student, production intern, and aftersales intern, working on the following projects:

- ▶ client account management and building a database for potential new business at Nike
- ▶ PR events and product launches at Johnson & Johnson
- ▶ providing support to product managers in adapting L'Oréal's international marketing campaigns for the UK market
- ▶ project management of the new restructuring of the customer service centre at Volkswagen

**Stage 3:** You complete a range of advanced modules including: management and creativity; design and innovation; and direct and digital marketing. You also choose to either complete a dissertation, exploring a management or marketing subject in depth, or undertake a consultancy project, working with a real client to research and present recommendations to improve their business. You also have a variety of optional modules to choose from.



# Mathematics and Statistics

Degree	UCAS	Entrance requirements
<b>Mathematics BSc Honours</b>	G100	<b>A Level: AAA or A*AB</b> Including at least grade A in Mathematics and excluding General Studies. Alternatively, AAB or A*BB including at least grade A in Mathematics and excluding General Studies AND including one A Level from: Further Mathematics, Biology, Chemistry, English Literature, Geography, History, Physics and Modern/Classical Languages or grade 2 in any STEP paper.  <b>International Baccalaureate: 35–37 points</b> With Mathematics grade 6 or above at Higher Level.
<b>Mathematics and Accounting BSc Honours</b>	NG41	
<b>Mathematics and Economics BSc Honours</b>	GL11	
<b>Mathematics with Finance BSc Honours</b>	G1N3	
<b>Mathematics with Management BSc Honours</b>	G1N2	
<b>Mathematics and Statistics BSc Honours</b>	GG13	<b>A Level: AAA or A*AB</b> Including at least grade A in Mathematics and excluding General Studies. Alternatively, AAB or A*BB including at least grade A in Mathematics and excluding General Studies AND including one A Level from: Further Mathematics, Biology, Chemistry, English Literature, Geography, History, Physics and Modern/Classical Languages or grade 2 in any STEP paper.  <b>International Baccalaureate: 37 points</b> With Mathematics grade 6 or above at Higher Level.
<b>Statistics BSc Honours</b>	G300	
<b>Mathematics MMath Honours</b>	G103	<b>A Level: AAA or A*AB</b> Including at least grade A in Mathematics and excluding General Studies. Alternatively, AAB or A*BB including at least grade A in Mathematics and excluding General Studies AND including one A Level from: Further Mathematics, Biology, Chemistry, English Literature, Geography, History, Physics and Modern/Classical Languages or grade 2 in any STEP paper.  <b>International Baccalaureate: 37 points</b> With Mathematics grade 6 or above at Higher Level.
<b>Mathematics and Statistics MMathStat Honours</b>	GGC3	
<b>Mathematical Sciences with Foundation Year BSc Honours</b>	G101	If you do not have the right mathematics qualifications for direct entry, you may be eligible to take our Foundation Year. All candidates are considered on an individual basis. This programme is not aimed at students who have already gained an A Level Mathematics qualification.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Accounting and Finance; Economics; Geographic Information Science; Physics; Psychology and Mathematics; Surveying and Mapping Science

## Your Future Career

Careers that require a mathematics degree include: teaching mathematics; statistical work; actuarial work; some research and development; and certain areas of computing.

Our 2016 Mathematics and Statistics MMathStat Honours graduates are working in roles such as: trainee chartered accountant; risk analyst; commercial banking graduate trainee; auditor; data scientist; and government statistician.

Our graduates also work in sectors such as: management; finance; accountancy; information technology; logistics; and transportation. Our degrees can lead on to PhD, MSc and PGCE courses.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Mathematics and Statistics MMathStat Honours leavers, within six months of graduating)

**93%  
OVERALL  
STUDENT  
SATISFACTION  
SCORE**

National Student Survey 2017

## Why Study With Us?

Our stimulating degrees offer research-informed teaching, flexibility and a state-of-the-art learning environment.

### League table ranking:

- ▶ 93% overall student satisfaction score – National Student Survey 2017
- ▶ 11th in the UK for research – Research Excellence Framework 2014

✓ **Professional accreditation\***: all our BSc degrees (excluding NG41 and GL11 degrees) are accredited by the Institute of Mathematics and its Applications (IMA). This means that our BSc degrees meet, in part, the educational requirements for the Chartered Mathematician (CMath) designation, with some additional study or experience required. Our MMath/MMathStat degrees meet the educational requirements for the Chartered Mathematician (CMath) designation.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement**: apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

✈ **Study abroad**: MMath and MMathStat students have the opportunity to gain an international perspective by taking part in a study abroad exchange. See page 16 for more information.

**Choose between BSc or MMath/MMathStat**: we offer degrees at two levels:

- ▶ our Bachelor of Science (BSc) degrees are three years in length.
- ▶ our Master of Mathematics (MMath) or Master of Mathematics and Statistics (MMathStat) degrees are four years in length. They're known as Integrated Masters' degrees because they involve study at postgraduate level in Stage 4

The BSc and Integrated Masters' degrees are broadly similar for the first three years. This means transfer is possible between them from the end of Stage 1 to the start of the Stage 3 Semester 2 exams, if your interests change and you meet the academic requirements of your chosen Integrated Master's degree.

In Stage 4, the MMath and MMathStat degrees cover more advanced topics and include a research project, tailored to your own interests. They also cover more technical skills for those who wish to enhance their employability or proceed to postgraduate study.

**Explore topics shaped by our research expertise**: with advanced modules such as: turbulence; financial modelling; biostatistics; geometric group theory; and cryptography.

**Enjoy high-tech teaching**: we use IT to support teaching, preparation and revision, including computer-based exercises with problem-solving tutorials.

**Join a supportive subject area**: small group teaching and a buddy scheme will help you make the transition to university.

**Enhance your employability**: develop skills including project management, report writing and presentation skills, supported by employment workshops. All Single Honours students take a mathematical skills and career management module in Stage 2 of their degree.

**Be part of a vibrant community**: our highly active society (MathSoc) organises a range of social and professional events.

**Access scholarships**: a range of subject scholarships and bursaries is available, based on A Level performance or equivalent.

**DTUS sponsorship**: several of our degrees (G100, GG13, GL11 and G1N2) are approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)

## What You Will Study

Studying mathematics and statistics at university builds upon the knowledge that you have gained at school or college. Some of the topics will be familiar and others will be completely new.

Some topics will be important in your future career and others will have wider applications and develop key skills that are sought after by employers, such as thinking logically, problem solving and constructing clear arguments.

Our single subject degrees incorporate a common set of core modules for the first two years. These cover the main areas of pure mathematics, applied mathematics, algebra, probability and statistics.

In Stage 1 these include: analytical geometry; foundations of and modelling with differential equations; number systems; and linear algebra.

In Stage 2 these include: vector calculus; differential equations; fluid dynamics; algebra; linear algebra; complex variable; statistical inference; Bayesian inference; stochastic modelling; and mathematical computing.

Students studying mathematics and statistics as a single subject will spend about five sixths of their time at Stage 1 studying core modules, and most of their time at Stage 2.

Students studying mathematics and statistics alongside another subject will study fewer topics at each Stage, focusing more on applied mathematics and statistics, to accommodate modules related to their complementary subject.



## Mathematics

BSc Honours | G100 | 3 years | ✓📅📅

MMath Honours | G103 | 4 years | ✓📅📅✈

## Mathematics and Statistics

BSc Honours | GG13 | 3 years | ✓📅📅

MMathStat Honours | GGC3 | 4 years | ✓📅📅✈

## Statistics

BSc Honours | G300 | 3 years | ✓📅📅

All students receive the same introduction to core mathematics and statistics topics for the first two years (Stages 1 and 2). See What You Will Study, left.

These degrees provide a high level of flexibility, outside your core modules, to tailor the combination of pure mathematics, applied mathematics and statistics content to suit your interests. Your degree title will reflect your balance of mathematics and statistics modules in Stage 3.

You can also explore exciting areas of mathematics and statistics, linked to the research expertise of our staff, such as cryptography, turbulence, quantum mechanics, Bayesian inference, and stochastic financial modelling.

Our MMath and MMathStat degrees take this further with a year of advanced study in Stage 4 that draws heavily on our research expertise. You will also experience the excitement of discovery for yourself with a substantial research project that accounts for a third of your time.

All students have the opportunity to apply for a year-long work placement between Stages 2 and 3. This extends your degree by a year.

There is also flexibility (mainly at Stage 1) to choose topics from other areas of the University, for example, accounting, music, a foreign language or another science.

*'The style of teaching is good. We have a range of different sessions from lectures and problems classes, to group meetings and computer labs.'*

Andrew, Mathematics BSc Honours



## Mathematics and Accounting

BSc Honours | NG41 | 3 years | 

This degree allows you to combine accounting and financial management with core mathematical techniques. Many of the accountancy modules carry exemptions from accrediting bodies and are based on real case studies, preparing you for a professional career. You benefit from expert teaching and receive outstanding support to help you settle into your studies.

**Stage 1:** We introduce you to accounting and finance through modules in financial accounting, management accounting and business economics. You also study core topics in mathematics and statistics including: probability; algebra; differential equations and calculus. You develop your communication and study skills by working in small group tutorials.

**Stage 2:** In accounting, you develop skills in financial control and financial accounting. You then choose between options in interpreting company accounts or corporate finance. Your core mathematical topics include vector calculus and statistical inference, as well as an introduction to computing and problem solving and to number systems with an introduction to cryptography.

**Work placement (optional):** You may choose to spend the year between Stages 2 and 3 on a work placement in the UK or abroad. This will extend your degree to four years. See page 154.

**Stage 3:** You take compulsory modules in financial and management accounting, and can choose between optional modules exploring real-life case studies to develop your business knowledge and extend your understanding of international financial management. In mathematics, you can choose from a variety of topics that are closely linked to our research expertise. These include stochastic financial modelling, Bayesian inference and statistical modelling. You may also choose linear models as an optional module to focus on your career development.

## Mathematics and Economics

BSc Honours | GL11 | 3 years | 

Employers will value the combination of economic theory and mathematical skills you gain on this degree. As well as pure and applied mathematics, you learn probability and statistical techniques that help you understand economics theories and address economic problems. You benefit from expert teaching and receive outstanding support to help you settle in.

**Stage 1:** We introduce you to the main economics issues that confront the British and European economies and help you to develop the skills needed for economic analysis. Alongside these modules, you study core topics in mathematics and statistics, including: mathematical methods; analytic geometry and the foundations of differential equations; and modelling with differential equations. We also introduce you to probability and statistics. You develop your communication and study skills by working in small group tutorials to complete a guided research investigation in business.

**Stage 2:** You explore the theory behind demand and supply curves, and short-, medium- and long-run economic frameworks, through modules in micro- and macroeconomics. You may also choose linear modules as an optional module to focus on your career development.

**Work placement (optional):** You may choose to spend the year between Stages 2 and 3 on a work placement in the UK or abroad. This extends your degree by a year. See page 154.

**Stage 3:** A wide range of optional economics modules enables you to explore a broad variety of topics closely linked to ongoing research. These currently include advanced micro- and macroeconomics, monetary economics and financial economics. You may also choose linear models as an optional module to focus on your career development.

## Mathematics with Finance

BSc Honours | G1N3 | 3 years |  

All students receive the same introduction to core mathematics and statistics topics for the first year, along with core applied mathematics, statistics and mathematical computing in the second year. See What You Will Study, page 155.

These degrees balance a broad foundation in mathematics and statistics with management and accounting topics from Newcastle University Business School. This equips you with the knowledge and skills to apply mathematics and statistics in the business world, and is excellent preparation for a career in banking and finance.

You spend two thirds of your time at each Stage studying topics in mathematics and statistics. Outside your core modules, we place particular emphasis on mathematics topics with financial applications such as stochastic financial modelling. You complement this with accountancy and corporate finance topics such as: interpreting company accounts; corporate finance; and international finance management, providing a broad understanding of the finance of the business world.

All students have the opportunity to apply for a year-long work placement between Stages 2 and 3. This extends your degree by a year.

One third of your modules at Stage 3 is optional, giving you the chance to follow areas of particular interest through topics that are closely linked to the research expertise of our staff.

*'If you have an interest in maths and statistics this course offers a lot of variety and helps you find out what you're truly passionate about. Your skills will quickly develop and you'll begin to realise how everything fits together.'*

Danni, Mathematics and Statistics BSc Honours

## Mathematics with Management

BSc Honours | G1N2 | 3 years |  

All students receive the same introduction to core mathematics and statistics topics for the first year, along with core applied mathematics, statistics and mathematical computing in the second year. See What You Will Study, page 155.

This degree equips you with the knowledge and skills to apply mathematics and statistics in the business world. It integrates the study of mathematics and statistics with the study of the major processes of business management, delivered by Newcastle University Business School.

You spend two thirds of your time studying mathematics and statistics at each Stage. You complement this with management and accounting topics such as: general management theory and practice; interpreting company accounts; human resource management; plus key business topics from the accounting perspective, such as marketing, finance, competition, merger/demerger, and ethics and corporate governance.

Two thirds of your modules at Stage 3 are optional, giving you a lot of freedom to follow areas of particular interest, through topics that are closely linked to the research expertise of our staff.

All students have the opportunity to apply for a year-long work placement between Stages 2 and 3. This extends your degree by a year.

## Mathematical Sciences with Foundation Year

BSc Honours | G101 | 4 years

If you don't have the right mathematics qualifications for direct entry to a mathematics and statistics degree at Newcastle, you might be eligible to take our Foundation Year.

This full-time programme covers core mathematics and statistics topics including differential calculus and complex numbers, as well as problem-solving skills and a project. Successful completion of the Foundation Year leads to progression to Stage 1 of any of our Mathematics and Statistics BSc degrees.

# Mechanical Engineering

Degree	UCAS	Entrance requirements
<b>Mechanical Engineering BEng Honours</b>	H300	<b>A Level: AAB-ABB</b> Including Mathematics, and at least one of Physics, Chemistry or Further Mathematics, but excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Physics or Dual Award Science (minimum grade B or 6) required if Physics not offered at A or AS Level.  <b>International Baccalaureate: 34–35 points</b> With Mathematics and at least one of Physics or Chemistry at Higher Level grade 5 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.
<b>Mechanical Engineering MEng Honours</b>	H301	<b>A Level: AAA</b> Including Mathematics, and at least one of Physics, Chemistry or Further Mathematics, but excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Physics or Dual Award Science (minimum grade B or 6) required if Physics not offered at A or AS Level.
<b>Mechanical Design and Manufacturing Engineering MEng Honours</b>	HH37	<b>International Baccalaureate: 37 points</b> With Mathematics and at least one of Physics or Chemistry at Higher Level grade 6 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.
<b>Mechanical Engineering with Biomedical Engineering MEng Honours</b>	H3H8	
<b>Mechanical Engineering with Energy MEng Honours</b>	H3H2	
<b>Mechanical Engineering with Mechatronics MEng Honours</b>	H3H6	
<b>Sustainable Transport Engineering MEng Honours</b>	H392	

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Foundation Year:** if you don't have the right mathematics and/or science qualifications for direct entry, you will be considered for a foundation year. See page 119 for details.

**Pre-Entry Mathematics Course:** if you don't have the required mathematics qualifications, you may be invited to take our Pre-Entry Mathematics Course to develop the mathematical skills needed to study your degree. Find out more online in the Entry Requirements tab of your chosen degree.

We welcome applications from all able and motivated students, regardless of your formal qualifications. We consider every aspect of your application and believe it is important to talk face to face with every good applicant wherever possible.

**International students:** we offer a Mechanical Design and Manufacturing Engineering BEng Honours degree in Singapore. [www.ncl.ac.uk/singapore/study](http://www.ncl.ac.uk/singapore/study)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Chemical Engineering; Civil Engineering; Electrical and Electronic Engineering; Engineering Foundation Programmes; Marine Technology; Physics

## Why Study With Us?

Mechanical engineers use science and mathematics to create new products, materials and manufacturing techniques.

✓ **Professional accreditation\***: all our degrees are professionally accredited by the Institution of Mechanical Engineers (IMechE) and the Institution of Engineering and Technology (IET) on behalf of the Engineering Council. This means future employers will recognise the quality of your degree because it meets high professional standards.

It also means both our BEng and MEng degrees provide a pathway to becoming a chartered engineer (CEng). This is one of the most recognised international engineering qualifications.

Our four-year 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 work towards chartered status.

Our three-year BEng degrees can also lead to chartered engineer status. However, you'll need to complete further study, such as an approved Master's degree.

You have the option to transfer between the various MEng degrees, and also from a BEng to one of our MEng degrees if you achieve the appropriate academic standard, at the end of Stage 2 (second year).

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

**Experience engineering in practice:** through study visits to factories typically including Greggs, Nestlé, Flymo, Tyne and Wear Metro, and Caterpillar.

**Enjoy teamwork and competitions:** take part in the international Formula Student competition to design, build and race a single-seater racing car.

**Develop professional skills:** all of our students work on industry-based projects to help solve real-world engineering problems. You gain great industry contacts and learn from lecturers with substantial industry insight.

**Apply what you know:** our degrees cover everything from robotics and railways to low-carbon transport and biomedical engineering. Study engineering science alongside design and manufacturing applications, ensuring you can apply the knowledge that you develop.

**Become a graduate in demand:** our graduates have an excellent track record in securing well-paid jobs. Some companies have been disappointed to find that we simply had no more graduates available for their employment!

**Enjoy state-of-the-art facilities:** get your career off to the best start through practical experience with our high-quality facilities and equipment which include:

- ▶ labs for design-make-test projects: making and testing machines and structures
- ▶ strengths (testing) labs with machines up to 500kN and 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 mainline diesel-electric locomotive

**Research-led teaching:** your degree is kept up to date by the research discoveries of our staff and the work of our research centres. We have internationally recognised expertise in bio-engineering, railway systems, machine design and high-power drives.

**DTUS sponsorship:** our degrees are approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)



## What You Will Study

**Stages 1 and 2:** The first two years are shared by all our mechanical engineering degrees and cover:

- ▶ mechanical, electrical and materials engineering sciences (50%)
- ▶ engineering design and manufacturing (20%)
- ▶ engineering mathematics (18%)
- ▶ management and professional skills, such as computing and enterprise (12%)

We place a strong emphasis on analytical engineering science and technical fundamentals, which require an ability to apply core mathematical skills.

Your timetable typically involves:

- ▶ lectures and tutorials (10–15 hours per week)
- ▶ laboratory activities (3 hours many weeks)
- ▶ computing and 3D CAD (3 hours many weeks)
- ▶ engineering design projects (3 hours per week)
- ▶ design–make–test projects (3 hours some weeks)
- ▶ tutorials with personal tutor (1 hour many weeks)
- ▶ study outside class hours (10–20 hours per week)
- ▶ workshop sessions (30 hours)
- ▶ industrial visits, interviews, business games, management (30–40 hours)

**Stage 3:** You balance general engineering topics (such as instrumentation and drives, computational modelling, design for industry, and managing engineering operations) with specific advanced topics relevant to your particular chosen course.

You work in small teams on projects based in local industry, working with and in some of the North East's leading engineering companies. You also complete an extended piece of work on a topic selected from a wide range of projects. This is aimed at developing your capabilities as an engineer in areas such as project planning and data analysis. You also undertake a major project.

**Stage 4 (MEng only):** You study advanced specialist topics and complete another major project. You also take part in an industrially relevant team project designed to develop your skills as a professional engineer, including project management and application of design methodology to engineering problems.

## Your Future Career

Mechanical engineers are in high demand worldwide, so our degrees can lead to well-paid professional careers.

The majority of our graduates wish to enter engineering-related careers in order to become professionally qualified. Popular areas are: research and development; design; production; manufacturing; project management; consultancy; contracting; purchasing; and quality assurance.

Opportunities exist in a range of sectors, including: transport and logistics; health; defence; manufacturing; automotive; and renewable energy.

Our 2016 Mechanical Engineering BEng and MEng Honours graduates are working in roles such as: graduate engineer; process engineer; research and development engineer; marine engineer; and graduate mechanical engineer.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Mechanical Engineering BEng and MEng Honours leavers, within six months of graduating)

STUDY A  
PROFESSIONALLY  
ACCREDITED  
DEGREE

## Mechanical Engineering

**BEng Honours | H300 | 3 years** | ✓ 

**MEng Honours | H301 | 4 years** | ✓ 

All Mechanical Engineering students receive the same introduction to core mechanical engineering skills and knowledge for the first two years (Stages 1 and 2). See What You Will Study, opposite.

If you continue on one of our general mechanical engineering degrees you will have the chance to gain knowledge and skills across a broad range of mechanical engineering topics, allowing you to keep your career options flexible.

In practice, many engineers develop into senior managers. In order to manage teams of specialist engineers effectively, it is helpful to have experience of the full spectrum of engineering activities.

Typical specialist topics include: biomedical engineering; advanced manufacturing technology; energy sources and storage; vehicle drives and dynamics; and robotics.

Examples of recent final-year projects include: repair of eroded steel pipelines; performance of 'liquid ring' vacuum pumps; and design of loading arms for transferring liquid chemical products to and from road and rail tankers.

## Mechanical Design and Manufacturing Engineering

**MEng Honours | HH37 | 4 years** | ✓ 

Almost everything around us has been mass-produced – the chairs we sit on, the televisions we watch and the computers we use. The increasing demand for products that are smarter, faster, cheaper and more environmentally friendly has set new challenges for the mechanical engineering world. The ability to develop solutions and products that will not only meet the requirements of customers, but also delight them, is highly sought after.

This degree provides the knowledge and tools, and the practise at implementing them, to ensure that functional, effective, innovative and user-friendly products and solutions are generated and can be manufactured appropriately and profitably.

All Mechanical Engineering students receive the same introduction to core mechanical engineering skills and knowledge for the first two years (Stages 1 and 2). See What You Will Study, opposite.

At later Stages, typical specialist topics include: materials degradation; advanced manufacturing technology; and mechanical power transmissions.

Examples of recent final-year projects include: development of excavator lifting capacity software, design of improved rail vehicle suspension and of an auto-coupler remover.

## Mechanical Engineering with Biomedical Engineering

**MEng Honours | H3H8 | 4 years** | ✓ 

The design and manufacture of artificial joints, the effect of wear and tear on biomaterials used in the body, and how engineering can help humans and animals to stay physically mobile for longer, are all the concern of the bioengineer.

Biomedical engineering embraces a wide range of engineering and medical techniques, including biomechanics, biotribology, biomaterials, and biosensors. Developments in this field include the design and investigation of new artificial joints, new materials to assist in the repair of soft tissues, and the effectiveness of rehabilitation treatment.

This degree will equip you to work in a range of jobs in the health sector or the industries supporting it.

All Mechanical Engineering students receive the same introduction to core mechanical engineering skills and knowledge for the first two years (Stages 1 and 2). See What You Will Study, opposite.

At later Stages, typical specialist topics include: biomedical engineering; biomaterials and tissue engineering; BioMEMS; and design for human–systems integration.

Examples of recent final-year projects include: total joint replacements – design of test rigs; investigation of failed prostheses; tribology – wear testing of biomaterials in joint replacements; and medical engineering – bluntness of surgical tools.

## Mechanical Engineering with Energy

MEng Honours | H3H2 | 4 years |  

The worldwide demand for energy is increasing, and there is pressure on the energy sector to meet that demand in a way that is secure, affordable and with limited impact on the environment.

This degree responds to these challenges by combining a solid base in mechanical engineering with knowledge of different energy technologies and design of energy systems.

The combination of a mechanical engineering background with an energy specialisation ensures that graduates have a range of career prospects in the energy sector and in renewable energy in particular.

All Mechanical Engineering students receive the same introduction to core mechanical engineering skills and knowledge for the first two years (Stages 1 and 2). See What You Will Study on page 160.



At later Stages, typical specialist topics include: photovoltaics and geothermal energy; energy management; renewable heating and cooling; and energy storage.

Final-year projects might include the likes of: designing a wind-hydro supply scheme for off-grid applications; water desalination using concentrating solar power in the Middle East and North Africa; or energy storage using second-hand electric vehicles batteries.

*'I enjoy how varied the course is; it's a mix of lectures, coursework and hands-on experience. My favourite area is design and manufacturing, where we designed and built fully functioning wind turbines as part of a group project.'*

Megan, Mechanical Engineering BEng Honours

## Mechanical Engineering with Mechatronics

MEng Honours | H3H6 | 4 years |  

Mechatronics represents a fusion of electrical, electronic, mechanical and software engineering. It combines precision engineering, automatic control and real-time computing for the design of products and processes in an interdisciplinary engineering environment. The result is some of the most innovative products to hit the market, such as smartphones, car stability control and robots.

All Mechanical Engineering students receive the same introduction to core mechanical engineering skills and knowledge for the first two years (Stages 1 and 2). See What You Will Study on page 160.

At later Stages, typical specialist topics include: mechatronic design; robotics; industrial automation; and distributed control systems.

Examples of recent final-year projects include robotic deburring of gears and the design of a two-axis probe for gear measurement.

## Sustainable Transport Engineering

MEng Honours | H392 | 4 years |  

Today's transport sector is faced with a number of challenges: increasing numbers of people using cars and public transport; a decline in fossil fuels; and the polluting effects of vehicles on the environment.

This degree responds to these challenges by combining a solid base in mechanical engineering with specialist skills in the design and manufacturing of vehicle structures, suspensions and drives, all aimed at producing efficient transport systems for tomorrow. The combination of a mechanical engineering background with automotive and rail specialisation ensures that graduates have a range of career prospects in the automotive, railway and transport industries, and beyond.

All Mechanical Engineering students receive the same introduction to core mechanical engineering skills and knowledge for the first two years (Stages 1 and 2). See What You Will Study on page 160.

At later Stages, typical specialist topics include: structural optimisation; energy sources and storage; and vehicle drives and dynamics.

Examples of recent final-year projects include cellular manufacturing of automotive sub-assemblies and fire testing of composite materials.

# Media, Journalism and Film Practice

Degree	UCAS	Entrance requirements
Film and Media BA Honours	P303	A Level: ABB International Baccalaureate: 32 points
Film Practices BA Honours	P313	
Journalism, Media and Culture BA Honours	P500	A Level: AAB International Baccalaureate: 34 points
Media, Communication and Cultural Studies BA Honours	PQL0	
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a>		
International Foundation Programmes: if you are an international student and do not meet the academic and English language requirements, see pages 222–223.		


**YOU MAY ALSO BE INTERESTED IN:** Combined Honours (up to three subjects, including Media and Communication, and Film Studies); English Language, Literature and Linguistics; Sociology

## Why Study With Us?



Our degrees provide a rigorous academic understanding of the media and culture in all their forms, enabling you to critically and creatively engage with the world around you.

### League table ranking:

- ▶ 1st in the UK – *The Complete University Guide 2018* (Communication and Media Studies category)
- ▶ 4th in the UK – *The Times/Sunday Times Good University Guide 2018* (Communication and Media Studies category)
- ▶ top 20 in the UK – the *Guardian University Guide 2018* (Media and Film Studies category)
- ▶ 4th in the UK for student satisfaction (95% overall satisfaction score) – National Student Survey 2017 (Media Studies category)
- ▶ 80% of research is 'world leading' or 'internationally excellent' – Research Excellence Framework 2014
- ▶ top 200 – Social Sciences category – *Times Higher Education World University Rankings* by Subject 2018

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

**Immerse yourself in academic theory:** study media, culture, journalism and film-making.

 **Study abroad:** You have the opportunity to take part in a study abroad exchange as part of your degree – look for the  symbol. See page 16 for more information.

**Develop practical skills for your future career:** we place special emphasis on links between theory and practice, and you'll develop skills in multimedia journalism, film-making, public relations, multimedia technologies and more. Our state-of-the-art Culture Lab facilities also enhance your practical experience.

**Receive tuition from academic and industry experts:** develop a broad commercial and cultural awareness of the media and creative industries from academics who are research active and internationally rated in their field, as well as industry professionals. Employers are also actively involved in work-related course projects and modules.

### Develop industry-relevant skills through our highly active student media scene, including:

- ▶ *The Courier*, Newcastle's weekly student newspaper, twice named Student Publication of the Year in the *Guardian* Student Media Awards
- ▶ student-run radio and television stations
- ▶ pop-up news projects and Jesmond Local, a digital news hub where you can develop and explore new models of journalism

**Benefit from our media links:** Newcastle has a vibrant media industry in the city, fuelled by skilled graduates. We have excellent links with the local media and cultural industries.



## Film and Media

BA Honours | P303 | 3 years | 

If you're interested in developing the practical skills and academic knowledge to produce documentary film, set within a firm academic foundation in media and cultural studies, this innovative degree is for you. Focusing on documentary, you'll learn to use digital technologies to creatively develop your film-making. You will be taught by renowned scholar-film-makers and supported by excellent technicians in Film@CultureLab, our new state-of-the-art facility for film-making.

**Stage 1:** You are taught the basic skills of film-making and introduced to film-making as a field of academic study. You undertake a range of documentary film-making exercises to start off with, which are complemented by an introduction to documentary film history, theory and film screenings.

You will develop the ability to critically watch documentary films from the point of view of a film scholar and a film-maker. You will be given a solid foundation from which to develop your documentary practice and your critical appreciation of film in Stages 2 and 3. You will also explore the role of media and culture in contemporary society, and their impact on the formation of individual and group identity.

**Stages 2 and 3:** You build upon your documentary film-making skills acquired in Stage 1 and undertake more complex and advanced film-making exercises, as well as gaining experience of crew-based short documentary film production to prepare you for Stage 3. In Stage 3 you will have the option of pursuing a full-year dissertation documentary practice project set within the broader media and creative industries. There are also opportunities to learn about other aspects of independent documentary film production and the related industry, such as distribution and dissemination.

## Your Future Career

The most popular career choices for our graduates are: communications; public relations; journalism; media planning; film-making; broadcasting; and advertising.

Our 2016 Media, Communication and Cultural Studies BA Honours graduates are working in roles such as: web and content editor; public relations and marketing officer; news reporter; marketing and communications officer; assistant buyer; and junior project manager.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Media, Communication and Cultural Studies BA Honours leavers, within six months of graduating)

1ST IN  
THE UK FOR  
COMMUNICATION  
AND MEDIA  
STUDIES

*The Complete University  
Guide 2018*

## Film Practices

BA Honours | P313 | 3 years | 

If you're interested in developing the practical skills for a range of documentary film-making practices, set within a firm academic foundation in film theory and exposure to world cinema, this innovative degree is for you. You'll gain a solid foundation in world cinema and documentary film history. You'll also learn to use digital technologies to creatively and cinematically develop your film-making skills. The focus of practice on this degree is documentary and a range of other non-fiction and experimental film-making. You will also develop a sophisticated understanding of the relationship between film theory and film practice, as well as benefitting from a sustained engagement with the film industries. You will be taught by renowned scholar-film-makers and supported by excellent technicians in Film@CultureLab, our new state-of-the-art facility for film-making.

**Stage 1:** You are taught the basic skills of film-making and introduced to film as a field of academic study. You undertake a range of documentary film-making exercises to start off with, which will be complemented by screening-based modules on world cinema and the cinematic documentary film.

You will develop the ability to critically watch films (fiction and non-fiction) from the point of view of a film scholar and a film-maker. You will be given a solid foundation from which to develop your film practice and your critical appreciation of film in Stages 2 and 3. You will also explore the emergence and development of film as an industry and be exposed to the eco-system of independent film production.

**Stages 2 and 3:** You build upon your film-making skills acquired in Stage 1 and undertake more complex and advanced film-making exercises including exploring theory through film practice projects, as well as completing a crew-based short documentary film project to prepare for Stage 3. In Stage 3 you make two films: a self-shot short documentary film and a full-year dissertation film. You also develop your understanding of the film industry, online distribution and other aspects of independent film production, such as distribution and dissemination.

The film practice elements will be complemented by a continuing engagement with film theory and history, all underpinned by regular film screenings. The integration of film theory and practice is a key feature of the degree. You will also be able to take modules that will contextualise your film practice within the thriving but competitive independent film sector.

*'The teaching on my course is second to none. Lecturers are current researchers who have publications that are embedded within our course content, meaning that content is engaging as our lecturers are so passionate about their area of study.'*

Emily, Media, Communication and  
Cultural Studies BA Honours



## Journalism, Media and Culture

BA Honours | P500 | 3 years | 

If you're interested in becoming a journalist or communications professional, this degree will give you the practical skills and academic knowledge you need. You'll develop journalistic writing skills and learn to communicate across a wide range of platforms and media. You'll also gain a firm academic foundation in the issues and current debates in media and cultural studies.

**Stage 1:** We introduce you to the principles and practices of multiplatform journalism, focusing on the skills needed to master relevant multimedia technology. You also start developing your writing skills for journalism. You explore the role of media and culture in contemporary society, and their impact on the formation of individual and group identity. You learn about researching journalism and media in a research module that will continue throughout your degree. A wide range of optional modules allows you to tailor the degree to your particular interests, such as film practice and film studies, public relations and marketing.

**Stages 2 and 3:** You continue expanding your skills in journalism, spanning print, magazine, online and elements of broadcast. You learn about regulation and legislation relevant to the media industries, and the ethical norms and practices for journalists.

In the second and third years of your degree, a multimedia package and a research dissertation will integrate the skills and knowledge you have acquired during your degree. You will be able to complement your core modules with a broad range of options from media and cultural studies, film practice and film studies, public relations, marketing and business studies.

*'I chose my course as an alternative to studying journalism. The degree offers the best of both worlds – cultural theory on one side and career-based modules on the other. I've found that the social and cultural theory modules are really my forte.'*

**William, Media, Communication and Cultural Studies BA Honours**

## Media, Communication and Cultural Studies

BA Honours | PQL0 | 3 years |  

This degree covers three distinct areas of study – media, cultural studies and professional practice. This provides you with the opportunity to study the generation, circulation and production of information through a wide range of approaches. You also develop the professional skills required for a career in the communications industry – someone able to apply critical thinking and theoretical knowledge, carry out practical evaluations, and offer imaginative solutions through high-quality verbal, visual and written communication. These skills can be in the area of journalism, public relations or film-making.

**Stage 1:** You explore the role the media plays in shaping culture, identity and interpersonal communications. You'll answer the question 'what is culture?' by examining how it intersects with gender, sexuality, race, class and nation, through a study of seminal texts. You also take a course in web-based publishing and a module on social research, which introduces you to research methods in media and cultural studies. A third of your topics are optional, covering a broad choice of areas such as professional communication, journalism, film-making and marketing.

**Stages 2 and 3:** We introduce you to further theoretical perspectives on media and culture. You also focus on the whole process and practice of research in studying media and culture, with a particular emphasis on data collection techniques and how to write a research proposal. You have the chance to put these skills into practice in Stage 3, undertaking a dissertation that focuses on a specific area of media, communication and culture.

A wide range of optional topics at both Stages allows you to focus in more depth on areas of particular interest to you, such as: television studies; new media; public relations; political communication; advertising; marketing and business studies; journalism and magazine publishing; celebrity culture; cultural theory and representation; food; sex; fashion; and globalisation of the media.

# Medicine

Degree	UCAS	Entrance requirements
<b>Medicine and Surgery MB BS Honours</b>	A100	<b>A Level: AAA</b> Including Chemistry and/or Biology at A Level and excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. If only one of Biology and/or Chemistry is offered at A Level, the other should be offered at GCSE grade A or 7 (or Dual Award Science grade A or 7). Once the academic criteria have been met, academic achievement is not considered further in subsequent parts of the application process eg additional A Levels or A* results or additional GCSE results are not considered.  <b>International Baccalaureate: 38 points</b> Including grade 5 in all subjects with Higher Level grade 6 in Chemistry or Biology. Combinations including two Sciences, Mathematics and English or English Language are desirable.
<b>Medicine and Surgery (Accelerated Programme) MB BS Honours</b>	A101	At least an upper second-class Honours degree or an Integrated Master's degree, or be a practising healthcare professional, with a post-registration qualification. All applicants are expected to show evidence of sustained academic endeavour within the last three years prior to starting the programme eg A Level study, Open University, GAMSAT. Additional requirements apply, see page 169.
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a> <b>International students:</b> we offer Medicine MB BS Honours in Malaysia: <a href="http://www.ncl.ac.uk/numed">www.ncl.ac.uk/numed</a> <b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222–223.		

**YOU MAY ALSO BE INTERESTED IN:** Biomedical and Biomolecular Sciences; Chemistry; Dentistry; Nutrition and Food; Pharmacy; Psychology; Speech and Language Sciences

## Your Future Career

After completing your University degree, you are normally entitled to provisional registration with the General Medical Council (GMC) with a licence to practise, subject to demonstrating to the GMC that your fitness to practise is not impaired. Once you have successfully completed a year as an F1 doctor in a two-year Foundation Programme, you should gain full registration. This is followed by a further year of generic training

On successful completion of your second year, all doctors will have achieved the same basic competencies before going on to select their specialty of choice, either as a doctor in a hospital or as a GP. All doctors, regardless of their specialty, must continue learning throughout their career, and our degree has been designed with this long-term aim in mind.

For further information on the GMC registration and National Examinations, visit [www.gmc-uk.org/doctors](http://www.gmc-uk.org/doctors)





## Why Study With Us?

Our courses offer clinically focused teaching by highly trained staff and our integrated approach means you'll experience contact with patients from your first year.

### League table ranking:

- ▶ 8th in the UK – *The Times/Sunday Times Good University Guide 2018*
- ▶ top 150 – Medicine category – QS World University Rankings by Subject 2017
- ▶ 93% overall student satisfaction score – National Student Survey 2017
- ▶ 9th in the UK – Research Excellence Framework 2014 (Clinical Medicine category)
- ▶ top 125 – Clinical, Pre-clinical and Health category – *Times Higher Education World University Rankings by Subject 2018*

✓ **Professional accreditation\***: both our five-year MB BS degree and four-year accelerated MB BS degree are professionally accredited by the General Medical Council (GMC).

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

✈ **Study abroad**: take an eight-week elective period, giving you the chance to study medicine almost anywhere in the world.

**Teaching style**: we use an integrated approach to learning and teaching. This means that you develop core knowledge, acquire clinical skills and are exposed to early clinical experiences from the beginning of the course.

We use a 'case-led' teaching approach to facilitate your learning. The use of clinical cases helps to put your learning into context and enables you to combine knowledge, clinical reasoning and practical skills.

*'Medicine is an amazing career choice – there's so much variety that there's something for everyone. We have a good balance of lectures, seminars and personal study and there are opportunities to do more of what you are really interested in.'*

Akansha, Medicine and Surgery MB BS Honours

In the first two years of the course you undertake a varied menu of early clinical experience, through contact with patients and visits to general practice and hospitals. This experience helps you to develop your core knowledge in a clinical setting.

We begin teaching clinical skills from as early as the second week of your degree. These skills are initially taught in the safety of the Clinical Skills Laboratory where Specialty Trainees provide structured learning and teaching which includes venesection, examination skills, CPR and much more.

**Intercalated study**: if you wish to explore an area in greater detail and gain experience in research you can take time out of your medical training for one year to undertake an intercalated degree. Intercalated degrees are ideal for those who think they might want to pursue a career in academic medicine after they qualify. The options for intercalated study at Newcastle include:

- ▶ joining the third year of any of our Biomedical and Biomolecular Sciences BSc Honours degrees (see page 64) after the second year of the MB BS course
- ▶ undertaking a Master of Research or MPhil qualification after the third or fourth year of the MB BS course

If you do not wish to take an additional year of study, you'll still have opportunities to benefit from our research expertise through Student-Selected Components (SSCs) and Vacation Research Scholarship Schemes. Our SSCs introduce you to clinical research methods and allow in-depth study of topics and specialties of your choice.



Newcastle is recognised as a world leader in a number of areas of research including ageing and applied stem cell biology. We also have state-of-the-art facilities for clinical research, developed in partnership with NHS trusts.

**Develop clinical skills in dedicated facilities**: use Anatomy and Clinical Skills Centres for practising basic skills, including patient simulators, dissecting rooms and clinical skills laboratories.

**Access specialist study resources**: including our extensive medical library and dedicated computer clusters.

**Conduct research at a Centre of Excellence**: we're a Centre of Excellence in translational (so-called 'bench-to-bedside') research for students interested in pursuing a period of research.

**Join our supportive community**: you'll be partnered with a 'family' of more senior students who can offer advice and support.

**Experience excellent clinical training opportunities**: we're a Regional Medical School with partnerships throughout the NHS within the Northern Region. You'll experience diverse placements across the region-wide infrastructure of acute hospital and general practices, which supports 3.5 million patients.

## Additional Admissions Information

### UKCAT

All applicants are required to take the UK Clinical Aptitude Test (UKCAT) in the year of application. See [www.ukcat.ac.uk](http://www.ukcat.ac.uk) for further information.

### Interview

Candidates who are considered to be particularly promising on the basis of their academic and UKCAT results will be interviewed.

### Resit grades

Applicants ideally should have achieved the necessary A Level grades at the first attempt as an indicator that they will be able to manage the intensity of the course. Newcastle University recognises that sometimes circumstances mean that students underperform. As a result, we allow a subject to be repeated once if there is a genuine reason for having underperformed. If a subject is being undertaken for a second time after further study the expectation is of a higher level of performance, the grade requirement from the University will also increase by a grade eg A to A\*.

## Other requirements

All applicants are expected to show evidence of sustained academic endeavour within the last three years prior to starting the programme. While we do not impose an age limit, applicants will be expected to have an insight into a career in medicine and be able to work in a clinical environment.

## The Disclosure and Barring Service (DBS)

All medical schools are required to ensure that their students, who will have a high level of unsupervised contact with children or vulnerable adults, undergo a Disclosure and Barring Service check. The Medical School reserves the right to discontinue your studies on receipt of an unsatisfactory disclosure.

## Health assessment and disclosure

All students are required to comply with the Department of Health's guidance on health clearance for healthcare workers. Early clinical contact at Newcastle means that students will be asked to provide proof of their immunisation status on entry. Immunity against the following is required: polio; tetanus; varicella (chicken pox); diphtheria; measles; mumps; rubella; and TB.

Newcastle University follows the Medical Schools Council protocol on blood-borne viruses. During the programme students will be asked to be tested for hepatitis B, hepatitis C and HIV. All aspects of a student's medical record will be bound by the same duty of confidentiality as for any doctor-patient interaction and informed by the same ethical guidance.

The status of any individual in respect of blood-borne viruses will not be a factor in the admissions selection process and will not prevent them completing undergraduate medical training. For full detailed admissions information see: [www.ncl.ac.uk/undergraduate/degrees/a100](http://www.ncl.ac.uk/undergraduate/degrees/a100)  
[www.ncl.ac.uk/undergraduate/degrees/a101](http://www.ncl.ac.uk/undergraduate/degrees/a101)

*'The teaching quality in Medicine has been fantastic at Newcastle University. The opportunity to receive lectures from some of the world's leading clinicians in various medical fields has been a continuous privilege throughout the course.'*

Aaron, Medicine and Surgery MB BS Honours

## UCAS admissions procedure

You are permitted a maximum of four choices on the UCAS application form for medicine. The closing date for applications is 15 October 2018.

Newcastle University is committed to broadening access to medical education and training and conform to a fair access admissions policy, which is reviewed annually.

Applications are welcomed from candidates with a diverse range of backgrounds and qualifications. Applicants applying with non-standard qualifications should contact [mbbs.admissions@ncl.ac.uk](mailto:mbbs.admissions@ncl.ac.uk) for advice.

For further information on admissions to our medical degrees please see [www.ncl.ac.uk/mbbs/admissions](http://www.ncl.ac.uk/mbbs/admissions)

## Programme Organisation

A100 is a five-year degree and is appropriate for students post-A Level or equivalent. There are 342 places available.

A101 is an accelerated four-year degree for applicants who already have a first degree or relevant experience (see Entrance Requirements, page 167). There are 25 places available.

Both A100 and A101 are fully integrated courses. The first two years for A100 (and first year of A101), though largely university-based, are case-led. Clinical skills and professionalism are taught and assessed from the start, laying the foundations of clinical practice. All A100 and A101 students then join a common pathway for the final three years of training delivered in partnership with the NHS.

All graduates receive an MB BS degree from Newcastle University and are normally eligible to apply for provisional registration with the General Medical Council (GMC).

## International Students

You are currently permitted to undertake the full Foundation Programme, ie the first two years following graduation, but you are normally required to return to your home country to complete further specialty training.

## Medicine and Surgery

MB BS Honours | A100 | 5 years | 

Newcastle graduates are some of the most prepared and successful in the UK. The degree programme is designed to provide a general medical education for all types of doctor, which will serve as the foundation for later career specialisation. Our course is continually reviewed and has evolved to ensure we provide the best possible programme for our students. Many elements of our original successful programme have been retained, whilst ensuring that the course fits the needs of the changing landscape in medicine, medical education and clinical training.

**Years 1 and 2:** The first two years of this five-year programme provide a foundation for more clinically based training in the last three years.

The curriculum is integrated in nature and is structured around a series of clinical cases and core presentations to help contextualise learning. Patient contact and early experience in clinical settings reinforce teaching of:

- ▶ normal and abnormal structure and function
- ▶ ethics
- ▶ social and behavioural sciences
- ▶ clinical and communication skills
- ▶ public health
- ▶ professional behaviour

In addition to training in clinical skills and visits to general practice and hospitals throughout Years 1 and 2, there is a dedicated block of clinical experience towards the end of Year 2, designed to ease transition into the clinical learning environment.

All students from the A100 and A101 programmes are integrated into a single common pathway for the final three years of training.

**Years 3 to 5:** During Years 3 to 5 you are allocated to and based in one of four regional Clinical Base Units (which may involve living away from Newcastle – see opposite). Base Units include primary, secondary and community-based organisations such as palliative care centres.

During Year 3, you build on the foundations of clinical practice developed in Years 1 and 2 by undertaking a junior assistantship and clinical rotations. These provide you with experience in a range of specialties including child and adolescent health, mental health and women's health. You will also spend time throughout Year 3 in general practice. At the end of Year 3, you will undertake a Student Selected Component (SSC) in which you can choose an area of medicine to gain more experience in.

Year 4 begins with a semester-long block of learning and teaching focusing on clinical sciences, investigative medicine, therapeutics, prescribing and advanced communication skills. A second SSC also runs throughout Semester 1, during which you will have weekly exposure to your chosen area of medicine. In Semester 2, you undertake clinical rotations in medicine and surgery, as well as focusing on long-term conditions. At the end of Year 4 you have the opportunity to undertake an eight-week elective period, giving you the opportunity to study medicine almost anywhere in the world.

Final year (Year 5) is focused on preparing you for becoming a Foundation doctor. In Semester 1, you will undertake a clinical rotation in primary care along with assistantships in mental health, child and adolescent health, and women's health, where you will be embedded within a healthcare team. In Semester 2, there is a block of teaching focusing on acute care and anaesthesia and three further assistantships in medicine, surgery and primary care.



You should note that most students are required to travel to their Base Unit. You will not normally be attached to the same Base Unit for Year 3 as you are for Years 4 and 5. Making use of the clinical and community settings throughout the region enables students to gain a range of learning experiences in different organisations. This is particularly the case in the final three years of the programme. Although a small bursary is currently provided towards the cost of travel, applicants should be aware that this is only a contribution towards the overall costs that may be incurred. Those allocated to the Tees Base Unit are strongly encouraged to live on Teesside for the duration of their study at the Base Unit.

## Medicine and Surgery (Accelerated Programme)

MB BS Honours | A101 | 4 years | 

Our Accelerated Programme is designed for graduates of any discipline who wish to train as a doctor, and others whose prior professional experience qualifies them for entry. All applications must be made through UCAS before 15 October 2018.

**Year 1:** Year 1 spans 45 weeks, providing you with an experience separate from, but equivalent to, Years 1 and 2 of the five-year MB BS course. Teaching and learning in the accelerated year is organised into small study groups and is structured around the core subject areas covered in Years 1 and 2 of the five-year degree (see opposite).

**Years 2–4:** Years 2–4 of the Accelerated Programme are identical to Years 3–5 of the five-year degree (see opposite).

*'For me, the most enjoyable parts of the course are hospital placements/ visits and clinical skills sessions. I have always preferred a practical method of teaching, and the Medical School really puts an emphasis on patient contact from the very start of the degree.'*

Michal, Medicine and Surgery MB BS Honours



# Modern Languages

Degree	UCAS	Entrance requirements
<b>Modern Languages BA Honours</b>	T901	<b>A Level: ABB–BBB</b> Including at least one language at A Level (French, German or Spanish).
<b>Modern Languages and Linguistics BA Honours</b>	QT19	<b>International Baccalaureate: 32 points</b> With Higher Level French, German or Spanish at grade 6 or above.
<b>Modern Languages and Business Studies BA Honours</b>	TN92	<b>A Level: ABB–BBB</b> Including French, German or Spanish at A Level, with GCSE Mathematics (minimum grade B or 6). Where a candidate wishes to study a single language from beginners' level and is not studying an A Level in a language, then grade B or 6 in a language at GCSE is required. <b>International Baccalaureate: 32 points</b> With Higher Level French, German or Spanish at grade 6 or above. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level. If you wish to study a single language from beginners' level and do not have a language at IB Higher Level then Grade 5 in a language at IB Standard Level is required.
<b>Modern Languages, Translation and Interpreting BA Honours</b>	R9Q9	<b>A Level: ABB</b> Including French, German or Spanish at grade A. <b>International Baccalaureate: 32 points</b> With Higher Level French, German or Spanish at grade 6 or above.
<b>Chinese Studies or Japanese Studies BA Honours</b>	TT12	<b>A Level: ABB–BBB</b> A GCSE grade B or 6 in any language is required. <b>International Baccalaureate: 32 points</b> Including a foreign language at Standard Level (grade 5) if not offered at Higher Level.
<b>Spanish, Portuguese and Latin American Studies BA Honours</b>	RT47	<b>A Level: ABB–BBB</b> Including Spanish. <b>International Baccalaureate: 32 points</b> With Spanish grade 6 or above at Higher Level.
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a> <b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222–223.		


**YOU MAY ALSO BE INTERESTED IN:** Combined Honours (choice of modern languages, plus up to two other subjects); Government and European Union Studies; International Business Management; Linguistics; Linguistics with Chinese or Japanese; Linguistics with French/German/Spanish

## Why Study With Us?

Our degree combinations allow you to study a range of East Asian, European and Latin American languages, countries and cultures, in flexible combinations to match your interests.

### League table ranking:

- ▶ top 10 in the UK – *The Times/Sunday Times Good University Guide 2018* (German and Iberian languages)
- ▶ top 10 in the UK – *The Complete University Guide 2018* (French, German and Iberian languages)
- ▶ top 20 in the UK – *The Times/Sunday Times Good University Guide 2018* (French)
- ▶ top 20 in the UK – the *Guardian University Guide 2018* (Modern Languages category)
- ▶ 6th in the UK for research power – Research Excellence Framework 2014
- ▶ top 200 – Arts and Humanities category – *Times Higher Education World University Rankings by Subject 2018*

 **Benefit from a global placement as part of your degree:** you will work or study abroad in your third year, immersing yourself in the countries and cultures whose languages you are studying, perfecting your language skills, and developing an international outlook. Students of Chinese or Japanese spend a year studying at one of our partner universities in China or Japan, while our other students have the flexibility to split their year abroad and undertake a combination of work, study or voluntary placements.

We offer lots of help to prepare you for your year abroad including:

- ▶ briefings covering practicalities, such as insurance, visas and safety
- ▶ support to find a placement
- ▶ a Tandem Learning Scheme to practise conversation in your language(s)

Our Year Abroad Officers keep in touch with you while you're abroad and you communicate regularly with your personal tutor. See page 16 for more information.

**Combine up to three languages in flexible and modern degree programmes:** our modern languages degrees allow you to take one, two or three languages. You can study Chinese, French, German, Japanese, Portuguese and Spanish as major languages, and Dutch, Catalan, Italian and Quechua are available as subsidiary languages from your second year.

Alongside language modules, you can choose from a variety of modules on the culture, film, history, societies and linguistics of the languages you are studying, with a focus on the modern and contemporary period.

**Enjoy excellent teaching and support:** you will be taught by professional language tutors and research-active staff with international reputations in their specialist fields. We make extensive use of our suite of language labs to help you develop high-level language proficiency, and integrate professional skills such as translation and interpreting into all our language programmes.

Throughout your degree you will be supported by your Degree Programme Director, your personal tutor and our team of Year Abroad Officers from our small and friendly School of around 50 staff.

**Learn in state-of-the-art facilities:** our award-winning Language Resource Centre has 80 computer work stations and private study areas. You can access specialist language software, dictionaries and DVDs, and choose from 3,000 films and 38 live satellite TV channels.

**Develop skills that will give you a head start in the job market:** all of our degrees enable you to develop professional skills and international perspectives. You will gain experience in a variety of fields through extracurricular activities: teaching through our Ambassadors programme; translation through our Real Translation scheme; and journalism and media through our student-led publications *Flying Solo* and *Gift of the Gab*.

We also work closely with the Careers Service to provide a range of employability-focused events, including an alumni networking evening, and run a very successful Careers Translated Blog which profiles job opportunities for linguists.

## What You Will Study

We design our degrees so that you will develop excellent linguistic skills and near-native fluency in your chosen language(s). For each language you're studying, you will have small-group practical language classes to develop your reading, writing, listening and speaking skills. These are normally taught in our state-of-the-art language laboratories by a native or near-native speaker.

We help you become fully immersed in the cultures of the languages and countries you are studying. Alongside language classes, you can choose from a broad range of topics in areas like contemporary society, cultural studies, history, politics, anthropology, film and media, literature and linguistics. The focus of our modules is on the modern and contemporary period. Our lecturers are all engaged in research on the countries, continents and cultures they specialise in, which means your classes will be informed by their most recent research findings.

We also offer career-enhancing translation and liaison interpreting in French, German and Spanish in your final year, as well as in Chinese and Japanese for students who take the advanced level final-year course.

If you combine a language with another subject, or combine two or three languages, you will study each subject equally in the first year. From the second year onwards, you have flexibility over how to combine them, either continuing to study them equally or moving to a major/minor combination in later years.

## Your Future Career

Our graduates follow a wide variety of career paths in countries around the world, and in a diverse range of sectors including: finance; marketing; publishing; tourism; teaching/education; human resources; translation/interpreting; journalism; management; public relations; and work with non-governmental organisations.

## Modern Languages

BA Honours | T901 | 4 years |  

Our Modern Languages BA Honours degree gives you the opportunity to study a wide range of languages and gain an in-depth insight into the countries where your chosen languages are spoken.

This degree is the most flexible way of combining your languages. You may study up to three languages from Chinese, French, German, Japanese, Portuguese and Spanish.

All of our languages are available from beginners' level, although you must have an A Level or equivalent in at least one of the languages you study.

If you have one language at A Level you can:

- ▶ study two languages (one at advanced level and one from beginners' level)
- ▶ study a single language

If you have two languages at A Level you can:

- ▶ continue to study both languages at advanced level
- ▶ continue to study one language at advanced level and choose a second from beginners' level
- ▶ continue to study both languages at advanced level and study a third from beginners' level

There are also optional beginners' modules available in:

- ▶ Catalan, Quechua or Italian for students of Spanish
- ▶ Catalan or Italian for students of French
- ▶ Dutch for students of German

Please note that, although this degree is very flexible, there are some restrictions. You cannot study Chinese and Japanese together and you cannot study more than one beginners' language.

For more information about what you will study each year and during your year abroad, see left and page 173.

**TOP 10  
IN THE UK**

*The Complete University  
Guide 2018 (French, German  
and Iberian languages)*

## Modern Languages and Business Studies

BA Honours | TN92 | 4 years |  

Graduates with this degree will offer potential employers a winning combination of business expertise and language skills. This degree is run jointly by the School of Modern Languages and Newcastle University Business School. It combines the study of one or two languages with the principles and practice of business management.

Your language choices are Chinese, French, German, Japanese, Portuguese and Spanish. You can choose to study one language (either from beginners' level or post-A Level) or two languages (in which case you must have an A Level in at least one of them).

Alongside language modules, you can choose optional modules in the culture, history, cinema or linguistics of the countries where your chosen languages are spoken.

In addition, optional beginners' modules are available: in Catalan, Quechua or Italian for students of Spanish; in Catalan or Italian for students of French; and in Dutch for students of German.

Your business management modules include topics such as organisational behaviour, marketing, human resource management, introductory economics, interpreting company accounts, and enterprise and entrepreneurship.

For more information about what you will study each year and during your year abroad, see opposite and page 173.

*'I chose to study at Newcastle University because of the flexibility – I can tailor my degree to what I'm interested in. This means I can study another language as well as continuing both of the languages I studied at A Level.'*

**Nat, Modern Languages BA Honours**

## Modern Languages and Linguistics

BA Honours | QT19 | 4 years |  

This degree is run by the School of Modern Languages with the School of English Literature, Language and Linguistics. It combines the study of foreign languages with linguistic theory, to explore how language works.

You spend two thirds of your time studying two languages. You choose from Chinese, French, German, Japanese, Portuguese and Spanish (with at least one in French, German or Spanish at post-A Level or equivalent).

In addition, optional beginners' modules are available: in Catalan, Quechua or Italian for students of Spanish; in Catalan or Italian for students of French; and in Dutch for students of German.

You spend the remaining third of your time studying linguistics, concentrating on the structure, history and use of both the English language and your foreign languages.

Your linguistic topics cover a wide range of areas within linguistics, such as syntax, phonology, morphology, semantics and pragmatics, sociolinguistics, historical linguistics and language acquisition.

For more information about what you will study each year and during your year abroad, see opposite and page 173.





## Modern Languages, Translation and Interpreting

BA Honours | R9Q9 | 4 years |  

This degree offers the opportunity to study two modern foreign languages, and specialise in translation and interpreting (T&I) in French, German or Spanish. One third of the programme is devoted to T&I, and two thirds to other aspects of the languages you are studying.

The degree aims to provide a firm foundation for a career as a freelance translator or interpreter for agencies and commercial clients in the private or public sectors, and for work in international organisations.

There are two routes through the degree.

If you have A Level (or equivalent) in two of French, German and Spanish, then you follow pathways in Translation and Interpreting in both languages.

If you have A Level (or equivalent) in one of French, German or Spanish, then you follow a Translation and Interpreting pathway in that language. You also study another language from beginners' level (from Chinese, French, German, Japanese, Portuguese or Spanish). This second language will enable you to be qualified for postgraduate study of translation and interpreting, or for other careers.

For more information about what you will study each year and during your year abroad, see pages 173–174.

## Chinese Studies or Japanese Studies

BA Honours | TT12 | 4 years | 

With the steady rise of China as an economic and political power, and the continuing diplomatic and economic importance of Japan, this degree enables you to take advantage of exciting new career opportunities emerging from Britain's growing political, business and cultural links with East Asia.

Whether you choose to study (Mandarin) Chinese or Japanese, you will learn to communicate with native speakers, orally and in writing, from day one.

At Newcastle, we provide two entry levels: one for those who are beginning from scratch, and a higher route for those who have a GCSE or A Level (or equivalent).

You spend your third year at a university in China (Beijing, Shanghai, Chengdu, Hainan Island, Xiamen) or Japan (Tokyo, Akita, Osaka, Kyoto, Hiroshima, Sapporo, Fukuoka). Here you follow an intensive programme of language study, build relationships with native speakers, and absorb the local culture.

The School of Modern Languages is proud to host the Newcastle Confucius Institute, a partnership between Newcastle University, Xiamen University and the Office of the Chinese Language Council International (Hanban).

For more information about what you will study each year and during your year abroad, see pages 173–174.

## Spanish, Portuguese and Latin American Studies

BA Honours | RT47 | 4 years |  

This degree gives you the chance to explore the rich linguistic, social and cultural diversity of the Hispanic world, from the Iberian Peninsula to Latin America and the Spanish Caribbean. You have the opportunity to achieve a high level of spoken and written Spanish, and to develop Portuguese from beginners' level.

The School of Modern Languages is home to the Centro de Língua Portuguesa (Instituto Camões), a major regional and national resource, sponsored by the Portuguese government and supporting the teaching of Portuguese.

You complement your language learning with a broad choice of research-informed modules relating to the vibrant cultures, societies and histories of Spain and Latin America. These include beliefs and social customs, languages such as Catalan and Quechua, art and music, and the survival of indigenous people.

For more information about what you will study each year and during your year abroad, see pages 173–174.

# Music

Degree	UCAS	Entrance requirements
<b>Contemporary and Popular Music BA Honours</b>	W301	<p><b>A Level: ABB</b> Including Music, Music Technology, or another music-related subject or BBB including Music plus Grade 8 Associated Board (Performance), Rock School or equivalent performance experience. Applicants should be practitioners in a type of contemporary or popular music. If A Levels do not include Music or a relevant music-related subject, an offer of ABB plus Grade 8 Associated Board (Performance), Rock School or equivalent performance experience may be considered.</p> <p><b>International Baccalaureate: 32 points</b> With Music at Higher Level. Standard Level Music may be considered, but will depend on the combination of subjects being studied. Applicants should be practitioners in a type of contemporary or popular music.</p> <p><b>Additional information:</b> Applicants will be invited to an interview and a short audition prior to offers being made.</p>
<b>Folk and Traditional Music BA Honours</b>	W344	<p><b>A Level: AAB–BBB</b> Ideally including Music (grade A in AS Level Music may be considered but will depend on the combination of subjects/qualifications being studied).</p> <p><b>International Baccalaureate: 32–34 points</b> With Music at Higher Level. Standard Level Music may be considered, but will depend on the combination of subjects being studied.</p> <p><b>Additional information:</b> In usual circumstances, offers will be made at the upper end of the ranges detailed above. However, we will consider making offers at the lower end of the range to candidates who demonstrate themselves, at audition, to be performers of exceptional ability, but whose predicted grades or achieved grades are in the lower end of our offer range.</p>
<b>Music BA Honours</b>	W300	<p><b>A Level: ABB</b> Including Music, or BBB including Music plus Grade 8 Associated Board (Performance) or equivalent. (AS Level Music may be considered, but will depend on the combination of subjects/qualifications being studied). If A Levels do not include Music, an offer of ABB plus Grade 8 Associated Board/Trinity (Performance) may be considered.</p> <p><b>International Baccalaureate: 32 points</b> With Music at Higher Level. Standard Level Music may be considered but will depend on the combination of subjects being studied.</p> <p><b>BTEC Level 3 Extended Diploma:</b> In a music-related subject at overall DDD and ABRSM Grade 5 Theory in addition to the Diploma.</p> <p><b>Additional information:</b> Applicants intending to take modules in performance should have passed Associated Board Grade 8 or the equivalent or be of a similar standard. Applicants will be invited to an interview and a short audition prior to offers being made.</p>
<b>Music BMus Honours</b>	W304	<p><b>A Level: AAB</b> Including Music or ABB including Music plus Grade 8 Associated Board (Performance) or equivalent (AS Level Music may be considered, but will depend on the combination of subjects/qualifications being studied). If A Levels do not include Music an offer of AAB plus Grade 8 Associated Board (Performance) or equivalent may be considered.</p> <p><b>International Baccalaureate: 34 points</b> With Music at Higher Level.</p> <p><b>BTEC Level 3 Extended Diploma:</b> In a music-related subject at overall D*DD and ABRSM Grade 5 Theory in addition to the Diploma.</p> <p><b>Additional information:</b> Applicants intending to take modules in performance should have passed Associated Board Grade 8 or the equivalent or be of a similar standard. Applicants will be invited to an interview and a short audition prior to offers being made.</p>

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)


**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.


## Why Study With Us?

Our degrees offer a high level of flexibility and choice so you can choose topics that build transferable skills while helping you develop into the musician you want to be.

### League table ranking:

► top 20 in the UK – *The Complete University Guide 2018* and the *Guardian University Guide 2018*

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

 **Study abroad:** you can apply to spend a year abroad studying music at one of our partner institutions. We have links with a number of universities and conservatoires in Europe (Austria, Denmark, Finland, Germany, Ireland, Italy, Spain, Sweden), Canada, North America and Australia. For students on our four-year BMus degree, this is an integrated part of your degree programme. See page 16 for more information.

Our partner institutions have their own strengths and specialisations. You can focus on performance, particular instruments or composition in particular styles. Alternatively you may choose specialised programmes such as folk and traditional music at Sibelius Academy in Helsinki or the Irish World Academy of Music and Dance in Limerick, or options in popular music, technology, musicology or church music.

## Your Future Career

Graduates who use their music degree in their work often progress to become: self-employed musicians; performers; composers; teachers; academics; artistic managers; music therapists; studio managers; and sound engineers.

Our 2016 Music BA Honours graduates are working in roles such as: development assistant; drum teacher; professional musician; trainee secondary school teacher; project musician; and interpreter and translator.

Other opportunities include: arts administration; music production; specialist magazine journalism; music librarianship or music publishing. You could also move into career pathways that are open to graduates of any discipline, for example: management; accountancy; law; events management; journalism and IT.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Music BA Honours leavers, within six months of graduating)

**Study with world-leading composers, performers and scholars:** develop your skills under the expert guidance of our teachers, who include leading professional musicians.

**Receive one-to-one tuition from internationally recognised musicians:** including members of one of Europe's most exciting orchestras, the Royal Northern Sinfonia.

**Enjoy excellent performance opportunities:** including weekly student and professional concerts on campus, to showcase your skills as a solo performer and in a range of staff and student-led ensembles and bands.

**Tailor your degree to suit your interests:** choose modules from our suite of degrees, which spans a wide range of musical styles and approaches.

**Benefit from world-leading research:** your module choice is informed by the expertise of research-active staff at our International Centre for Music Studies (ICMuS). This includes cultural theory, ethnography, policy and history.

**Access fantastic facilities:** our £4.5 million Music Studios on campus include rehearsal spaces available 24/7.



**Develop skills for a music career:** through our modules in music enterprise and teaching music in schools.

**Gain real-world event management experience:** help organise our annual student-led Summer Music Festival.

**TOP 20  
IN THE UK  
FOR MUSIC**

The Complete University Guide  
2018 and Guardian University  
Guide 2018

## Contemporary and Popular Music

BA Honours | W301 | 3 years |  

This degree allows you to specialise in some form of contemporary music performance, composition and/or academic study, ranging from acoustic singer-songwriting through to experimental electronic forms. We place strong emphasis on creativity, experimentation and artistic risk-taking. There are plenty of opportunities to develop your performance skills, helping you to grow as an accomplished musician. Applicants who have an HND or approved foundation degree in any form of popular or contemporary musical practice may be considered for direct entry to this degree at Stage 2.

**Stage 1:** You study a fixed menu of modules that covers contemporary and popular cultural, theoretical and creative approaches. Our Stage 1 modules range across the history of music and into the 20th and 21st centuries. They consider world musics, investigate contemporary musical materials, and help you improve as a performer and as a composer (in both notated and electro-acoustic forms).

**Stage 2:** You can study a broad range of historical, cultural and practical options and have the freedom to determine the balance between these different strands. These elective modules cover areas including: contemporary composition; contemporary studio practice; ethnomusicology; American popular music; Indian music; salsa music; experimental pop; musical modernism and folk music studies. There are also modules that help you develop as a creative musician and others that explore the historical and cultural areas of contemporary and popular musics.

You may choose to spend a year abroad in a partner institution between Stages 2 and 3. This comes with a reduced fee and extends your degree to four years.

**Stage 3:** You complete a major specialist study, which could be: an original composition; a creative project; a performance; or a dissertation/project on an area of interest which you hope to focus on in your life and work after leaving University. You may also take a minor study in a second area of specialism.

You choose the remaining balance of modules from a range of historical, cultural and practical options offered by the world-leading research-active staff at our International Centre for Music Studies (ICMuS). These cover topics including: advanced salsa performance; global pop; music in the Holocaust; performance art/performance theory; music, politics and policy; world jazz; and vocational studies such as music enterprise and teaching music in schools.

## Folk and Traditional Music

BA Honours | W344 | 3 years |  

This degree is a unique programme that offers the opportunity to study the traditional music and song of England, Scotland, Wales and Ireland. Performance is important throughout the degree, but you will also study the social and cultural context of traditional and folk music, and how music helps to construct identity and culture. National and international artists teach as regular and guest tutors on this degree.

As you progress through the degree you will have increasing freedom to choose modules to fashion your studies according to your aspirations. Our partnership with Sage Gateshead is a strong feature of the course, with some of the teaching taking place there, as well as all the final-year performance recitals. Our students also perform at Sage Gateshead as part of the series 'Future Traditions'.

**Stage 1:** The first year lays the foundation for understanding folk and traditional music in both performance and scholarship. You take a range of modules that surveys the traditions of Britain and Ireland and those of other world traditions. There is a strong emphasis on performance. You take regular one-to-one lessons on your main instrument and take part in weekly tutor-led workshops to develop your ensemble playing skills.

**Stage 2:** In addition to regular one-to-one lessons on your main instrument, you can study a broad range of historical, cultural and practical options. You have the freedom to determine the balance between these different strands. These elective modules cover areas such as ensemble playing, academic approaches to the history and understanding of folk music, and approaches to traditional musics from around the world. For those students who wish to enhance their scholarly and analytical skills there is an array of choices ranging from ethnomusicology, through American popular music, to folk music studies.

In the second semester, a popular option is to spend a semester abroad in one of our partner institutions, such as the Sibelius Academy in Helsinki or the Irish World Academy of Music and Dance in Limerick. Alternatively, you may choose to spend a year abroad in a partner institution between Stages 2 and 3. This comes with a reduced fee and extends your degree to four years.

 **Continued overleaf.**



**Stage 3:** You complete a major specialist study in an area of your choice, this could be: performance, composition, a dissertation or project. You may also take a minor study in a second area of specialism.

You choose the remaining balance of modules from a range of historical, cultural and practical options offered by the world-leading research-active staff at our International Centre for Music Studies (ICMuS). These include: world jazz; global pop; music, politics and policy; vocational modules covering teaching music in schools and music enterprise; and further studies in folk ensemble work.

## Music

**BA Honours | W300 | 3 years** | 🎓

**BMus Honours | W304 | 4 years** | 🎓

These are broad-based music degrees that offer a solid grounding in Western art music practices alongside opportunities to study contemporary, world, traditional and popular musics. They aim to develop accomplished musicians and well-rounded graduates with a balance between musical and academic training. They both follow the same study programme, except that BMus students spend their third year abroad. We have built a high level of flexibility and choice into the course, giving you increasing control over the balance of practical and academic content.

**Stage 1:** You study a fixed menu of modules that covers historical, cultural, theoretical and creative approaches. Modules range across music history, world musics, music theory and techniques, performance and composition (notated and electro-acoustic).

**Stage 2:** You choose from a broad range of historical, cultural and practical options, and have the freedom to determine the balance between these different strands. Historical and cultural options include modules on: ethnomusicology; Western music history; and popular, world and folk musics. Practical options include: composition (notated, electro-acoustic, historic techniques and sound art); performance; advanced harmony and counterpoint; practice-based modules in Indian music, early music and new music.

**Stage 3 (BA):** You have opportunities to conduct independent work in two specialised areas of your choice. You complete a major specialist study, which could be: an original composition; dissertation on an area of interest; instrumental or vocal performance; or extended research project presented in a form other than a dissertation, such as an analysis project, a critical edition, or a stylistic composition project. You may also take a minor specialist study in a second area.

You choose the remaining balance of modules from a range of historical, cultural and practical options offered by the world-leading research-active staff at our International Centre for Music Studies (ICMuS). These cover topics including: advanced salsa performance; music in the Holocaust; Beethoven and his legacy; music, politics and policy; world jazz; performance art/performance theory; musical spaces, structure and symbolism; and vocational studies such as music enterprise and teaching music in schools.

**Stage 3 (BMus):** BMus students spend a year abroad studying music at a partner institution. We have links with a number of universities and conservatoires in Europe (Austria, Denmark, Finland, Germany, Ireland, Italy, Spain, Sweden), Canada, North America, South America and Australia. While many of our partner institutions teach in English, some teach in their native language and you may take the appropriate language modules in Stages 1 and 2.

**Stage 4 (BMus):** You have opportunities to conduct independent work in two specialised areas of your choice. You complete a major specialist study, which could be: an original composition; dissertation on an area of interest; instrumental or vocal performance; or extended research project presented in a form other than a dissertation, such as an analysis project, a critical edition, or a stylistic composition project. You may also take a minor specialist study in a second area of specialism.

You choose the remaining balance of modules from a range of historical, cultural and practical options offered by the world-leading research-active staff at our International Centre for Music Studies (ICMuS). These cover topics including: advanced salsa performance; music in the Holocaust; Beethoven and his legacy; music, politics and policy; world jazz; performance art/performance theory; musical spaces, structure and symbolism; and vocational studies such as music enterprise and teaching music in schools.

# Nutrition and Food

Degree	UCAS	Entrance requirements
<b>Food and Human Nutrition with Placement BSc Honours</b>	B4D6	<b>A Level: AAB-ABB</b> Including two science subjects preferably including Biology or Chemistry, but excluding General Studies. Home Economics/Food Technology will be considered instead of Biology at A Level. Chemistry is preferred at A or AS Level but not essential. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics (minimum grade B or 6) required if not offered at A or AS Level.
<b>Food and Human Nutrition BSc Honours</b>	B46D	<b>International Baccalaureate: 32-34 points</b> Including two science subjects, preferably including Biology or Chemistry, at Higher Level grade 5 or above. Mathematics or Mathematical Studies, Biology and Chemistry required at Standard Level grade 5 if not offered at Higher Level.
<b>Nutrition with Food Marketing with Placement BSc Honours</b>	BD64	<b>A Level: AAB-ABB</b> Including at least one science subject (preferably Biology or Chemistry) but excluding General Studies. Home Economics/Food Technology will be considered instead of Biology. Chemistry is preferred at A/AS Level but not essential. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. Mathematics, and Chemistry or Dual Award Science, required at GCSE (minimum grade B or 6) if not offered at A/AS Level.
<b>Nutrition with Food Marketing BSc Honours</b>	BD46	<b>International Baccalaureate: 32-34 points</b> Preferably including Higher Level Biology at grade 6 or above. Chemistry preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 5 or above if not offered at Higher Level.
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a>		
<b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222-223.		

**YOU MAY ALSO BE INTERESTED IN:** Agri-Business and Food Management; Biology and Zoology; Biomedical and Biomolecular Sciences; Food Business Management and Marketing; Marketing; Psychology; Psychology and Nutrition

## Your Future Career

Our graduates are working in:

- ▶ development of nutritious products in the food industry
- ▶ quality assurance or marketing in the food industry
- ▶ research on food and consumption and human health (via postgraduate study)
- ▶ advisory roles in the food retail and health sectors
- ▶ non-commercial organisations such as the Medical Research Council or the government
- ▶ food and health journalism

Our graduates also work in areas that include: management; administration; accountancy; finance; teaching; and the media.

**5TH IN THE UK**

Guardian University Guide 2018  
(Agriculture, Forestry and Food category)

## Why Study With Us?

Our degrees incorporate the latest knowledge in diet and human health, consumer behaviour and food marketing.

### League table ranking:

- 5th in the UK – the *Guardian University Guide 2018* (Agriculture, Forestry and Food category)
- 9th in the UK – *The Complete University Guide 2018* (Food Science category)

✓ **Professional accreditation\***: our degrees are professionally accredited by the Association for Nutrition (AfN). This means our graduates can apply for direct entry into the UK Voluntary Register of Nutritionists at associate level and use the letters ANutr after their name without undergoing further assessment.

Our Nutrition with Food Marketing degree is also accredited by the Chartered Institute of Marketing (CIM), which gives you the opportunity to gain professional qualifications through the CIM Graduate Gateway.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📄 **Boost your CV with a professional placement:** since 1994, almost all of our Nutrition and Food students have spent a placement year working in the food industry or another relevant sector as part of their degree. This is an excellent opportunity to apply your knowledge in a work setting and gain valuable professional experience. Our placement programme, which includes the opportunity to obtain an award from the City and Guilds of London Institute (equivalent to NVQ Level 4), has an excellent reputation in the food industry and will help you stand out from other graduates in the marketplace.

*All the teaching staff are really helpful and happy to discuss any issues you may have and support you as much as possible.'*

Marie, Food and Human Nutrition BSc Honours

Our dedicated Placement Co-ordinator will assist you via extensive contacts with placement providers and ongoing support during your placement; and our award-winning Careers Service will provide you with training, such as preparing a CV, applying for jobs and interview practice. You can also gain a Food Hygiene Certificate.

There are placement opportunities in the UK and abroad, paid or unpaid. Past hosts include: Mondelez; Tesco; MRC Human Nutrition Research Unit, Cambridge University; Northern Foods; Marks & Spencer; Nutricia; and Masterfoods. Each year a few students work on a research project at Newcastle University for their placement.

✈ **Study abroad:** you may choose to undertake your work placement abroad through the Erasmus+ scheme. See page 16 for more information.

**Learn in state-of-the-art specialist facilities:** including our Food and Consumer Research Facility (NU-Food) for experiments and student research projects.

**Enjoy expert teaching and supervision:** learn from renowned experts in the University's Human Nutrition Research Centre, who research nutrition and inform policy at national and international levels.

**Benefit from our multidisciplinary expertise:** our wide-ranging curriculum incorporates topics and expertise from across the University's Faculty of Medical Sciences and Faculty of Science, Agriculture and Engineering.

**Gain specialist knowledge:** in areas such as links between diet and health and how consumers choose which foods to buy. Public interest in food, diet and health is at an all-time high, and the challenges and opportunities facing society and industry make this a fascinating subject to study.



## Food and Human Nutrition

### With Placement

BSc Honours | B4D6 | 4 years | ✓📄✈

BSc Honours | B46D | 3 years | ✓

Scientific research has given us an excellent understanding of the fundamental aspects of nutrition, including what makes up a balanced diet and how our bodies use different foods. This degree explores the links between diet and health, from the cell and molecular level through to people and populations. You will also discover the impact of food composition and processing on nutritional value, quality and consumer acceptance.

**Stage 1:** We introduce you to the underlying sciences of food and human nutrition. You study modules in nutrition and food science, genetics, biochemistry, microbiology, immunology and physiology. You explore current food and nutrition issues, as well as the basics of food production and utilisation from primary production to human consumption. You visit factories and kitchen outlets to put your learning into context.

**Stage 2:** You continue to develop core knowledge of human nutrition and food science. You study the latest research developments in nutrition, and sports and exercise nutrition. In the experimental human nutrition module, you work in small teams to carry out investigations and produce a joint report, gaining experience in how to design and carry out experiments involving people. You also take part in a nutrition experiment yourself.

**Nutrition Professional Placement Year (B4D6):** You spend this year on a work placement in the UK or abroad. See opposite for details.

**Stage 3:** Your topics include: nutrition and its relation to health and disease; eating disorders; and the scientific basis for setting nutrient requirements in people. You develop your practical skills and your ability to plan and organise by carrying out a research project under the supervision of a member of academic staff. The results of this project form the basis of your dissertation, which showcases your research, report-writing and presentation skills. You complement this with seminars on current issues in food and nutrition. You will also attend a national conference in the UK in the area of food and human nutrition, which will enable you to hear from and meet global experts in food and nutrition research.

## Nutrition with Food Marketing

### With Placement

BSc Honours | BD64 | 4 years | ✓📄✈

BSc Honours | BD46 | 3 years | ✓

This degree explores the application of nutritional science and food marketing to food markets, food consumers, diet, nutrition and health. You learn about the structure of the food industry, which represents the largest manufacturing base in Europe. You also study the links between diet and health, and the challenges of securing a globally sustainable, safe and nutritious food system. You develop the critical and analytical skills required to explore and assess the global food system, from social, economic, legal, technological, ethical, political and environmental perspectives.

**Stage 1:** We introduce you to both nutrition and food marketing through modules covering topics such as: biochemistry; the basic principles of food marketing; current food and nutrition issues; economics for business and marketing; and the underlying scientific and legislative principles of food science and nutrition.

**Stage 2:** We place particular emphasis on the 'food consumer' through topics such as: marketing communications within the food industry; the impact of food processing and current food processing technologies; and the physiology of food digestion and energy use. You work in teams to carry out a nutritional experiment with volunteers and to interpret the data that results from it. You also have the chance to develop a new food concept to be presented to an industry panel and to research, in groups, different types of food consumers.

**Nutrition Professional Placement Year (BD64):** You spend the year between Stages 2 and 3 on a work placement in the UK or abroad. See opposite for details.

**Stage 3:** The final year will challenge you to consider critically an array of contemporary food and nutrition issues. You also examine the technical, business, societal, ethical and regulatory factors that drive these debates. You study advanced nutrition topics such as: the scientific basis for setting nutrient requirements; nutrition and disease; and human nutrition and health. You study topics related to the procurement, manufacture and transport of food, and the relationship between diet and performance in sport and exercise. You also undertake an individual dissertation and participate in a student conference that you and your fellow course mates will deliver.



Degree	UCAS	Entrance requirements
Pharmacy MPharm Honours	B230	<p><b>A Level: AAB</b> With Chemistry and at least one of Biology, Mathematics or Physics at A Level and excluding Critical Thinking and General Studies. For Biology, Chemistry and Physics A Levels we require a pass in the practical element. Mathematics and English Language both required at GCSE, minimum grade C or 4, if not offered at A or AS Level. Offers are made subject to satisfying fitness to practise conditions.</p> <p><b>International Baccalaureate: 36 points</b> At least 5 points required from Higher Level Chemistry and at least 5 points required from at least one of Higher Level Biology, Mathematics or Physics. At least 4 points required from Standard Level Mathematics or Mathematical Studies if not offered at Higher Level. Offers are made subject to satisfying fitness to practise conditions.</p>

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Biomedical and Biomolecular Sciences; Chemistry with Medicinal Chemistry; Medicine; Pharmacology

## Your Future Career

The majority of pharmacists work in community or hospital practice. Others work closely with general practitioners (primary care) or within the many areas of the pharmaceutical industry.

At the end of your studies you'll be able to work in the fields traditionally associated with pharmacy, as well as having access to a range of postgraduate study opportunities.

Some graduates complete their pre-registration training then return to higher education to complete a research degree. You may also undertake a PhD as part of your pre-registration training year, providing the other six months are in a patient-facing environment.



## Why Study With Us?

Pharmacists work in a variety of settings providing essential healthcare support, from drug design and production, to roles in the community and the clinical setting.

### League table ranking:

- ▶ top 125 – Clinical, Pre-clinical and Health category – *Times Higher Education* World University Rankings by Subject 2018
- ▶ top 150 – Pharmacy and Pharmacology category – QS World University Rankings by Subject 2017

**Excellent reputation:** join our world-renowned Faculty of Medical Sciences. We have an international reputation for the quality of our well-established degrees in medicine, dentistry, psychology and biomedical sciences. We're also a National Centre of Excellence in biomedical research.

**Professional accreditation\*:** we are currently working towards full accreditation for the Master of Pharmacy (MPharm) degree with the General Pharmaceutical Council (GPhC).

If you want to become a pharmacist, you must study a professionally accredited MPharm Honours degree. This is the first step of your professional career. After successful completion of your degree, you will need to complete one year as a pre-registration trainee. After this, you can register with the GPhC and be allowed to practise as a pharmacist (see right).

GPhC accreditation also means that the degree content and processes have been reviewed for quality assurance purposes to ensure it meets the relevant GPhC standards.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Teaching style:** our approach to teaching is primarily problem-orientated. We use lectures, seminars, tutorials, problem-based learning, practical experience, laboratory work and case seminars to encourage you to develop knowledge and skills in an integrated manner.

We demonstrate the important links between fundamental pharmaceutical science and application to professional practice. We do this by using a primarily case-led approach. This means we can ensure you learn to integrate your developing knowledge and are able to apply it to your future work.

The level of contact that each year group has with the entire MPharm programme team is high and all students spend a high percentage of their week engaged in some form of teaching. Our range of teaching methods ensures you firmly develop both a theoretical knowledge base and practical skills to the correct level.

**Become a caring, ethical and effective pharmacist:** this degree equips you with the professional skills, scientific knowledge and clinical experience for your career as a pharmacist, a rewarding role with an attractive graduate salary.

**Learn from leading experts in pharmacy:** our teaching staff includes internationally acknowledged academics with expertise in health informatics, pharmaceutical public health and medicinal chemistry. You'll learn advanced research skills that could prepare you for a career in academic pharmacy or research and development.

**Develop your skills with placements:** develop your professional skills through high levels of patient contact and placements in a variety of healthcare settings.

## Additional Admissions Information

Applicants must satisfy fitness to practise requirements on admission to the course. This includes a health declaration and submission of an acceptable Disclosure and Barring Service (DBS) clearance. Students coming direct to the course from a country outside of the UK must provide a letter of good conduct from their home country and will be required to submit an acceptable DBS at the end of the first year.

## Pre-registration Training

To register as a pharmacist, after successfully completing your MPharm degree, you must complete one year of pre-registration training. This year is completed as a graduate and you are responsible for sourcing your own training contract. However, we will give you lots of support to prepare you for finding and applying for pre-registration training.

You'll receive guidance on personal development, pre-registration training and the pharmacy profession from the academic team and other dedicated staff within the Faculty of Medical Sciences. At numerous points throughout the course we will introduce you to employers so you can prepare for their likely expectations of a pre-registration trainee.

**▶ Continued overleaf.**

In addition, the content of your degree will ensure you are well prepared. As a graduate, you will have completed numerous work placements in community, hospital, primary care and industry settings. You'll also have received intensive clinical and scientific teaching through our case-led teaching approach, to ensure you are fully prepared for pre-registration training and the future professional role in pharmacy. More information on pre-registration training can be found on the General Pharmaceutical Council's website: [www.pharmacyregulation.org](http://www.pharmacyregulation.org)

## Pharmacy

### MPharm Honours | B230 | 4 years

This four-year degree focuses on developing your scientific, technical and communication skills so that you can confidently pursue a career as a pharmacist. It is a highly rewarding career and graduates of pharmacy degrees enjoy very high employment levels. There is plenty of patient contact and clinical placements throughout your studies to help you put your learning into context as a developing healthcare professional.

**Stage 1:** You study fundamentals of pharmacy: the integration of science and practice. This module will focus on patient-orientated problems. You will have access to patients from the very start of the course to ensure that you understand how to apply knowledge and skills. You study the normal structure and function of the human body; pharmacology, medicinal chemistry and formulation science; and micro-organisms.

You gain experience of the workplace and learn a range of professional and practical skills. These include: how to talk to patients; working within healthcare teams; simple examination skills and physiological monitoring; and research skills such as literature searching and statistics.

**Stage 2:** You study pharmaceutical care: pathology, patients and professionalism. You examine abnormal pathology and subsequent therapeutic options to deal with disease, including chronic disease management. This will be fully integrated with cutting-edge pharmaceutical science and will be supported by continuing experience of the workplace.

You also study: law as it is relevant to pharmacy; systems for medicines management including the use of clinical guidelines; and communicating complex information to patients.

**Stage 3:** You study applied pharmaceutical interventions: design, delivery and decisions. You experience more complex patient-based cases, which will include multiple disease states and complex therapeutic interventions.

You develop an understanding of how medicines are used concomitantly and how adverse effects are monitored and managed. The development of drugs from first principles will be examined, including the use of molecular modelling techniques. You also study the formulation of injections, implantable medicinal devices and transdermal delivery devices.

You continue to develop vital decision-making skills, skills in communication and consultation, and examination.

**Stage 4:** You study targeted therapeutics: optimisation, critique and responsibility, which focuses on preparing for practice. You will encounter complex clinical problems, which you will be required to manage from first principles.

You examine specific areas of oncology, infection and immunology, including support strategies for patients. You also learn about state-of-the-art formulation devices used in the delivery of chemotherapy, including the use of nanotechnology.

You also choose an area of pharmacy to study in more detail as part of a research project. Potential areas for focus are: medicinal chemistry; pharmacology; pharmacy practice; formulation science; and pharmaceutical microbiology. This project will be supervised by one of the academic staff and will be closely related to their current research interests. Thanks to our international study abroad links, it is possible for you to undertake the practical aspect of your project at a partner institution overseas.


# Philosophy


Degree	UCAS	Entrance requirements
Philosophy BA Honours	V500	<b>A Level: AAB-ABB</b> General Studies accepted. <b>International Baccalaureate: 32 points</b> With three subjects at Higher Level grade 5 or above.
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a> <b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222-223.		

**YOU MAY ALSO BE INTERESTED IN:** Combined Honours (Philosophy, plus up to two other subjects)

## Why Study With Us?

Philosophy opens up new ways of thinking and equips you with the skills to question, analyse and balance multiple – even opposing – points of view.

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14-15. You can also gain academic credit for teaching in local schools or working in local businesses.

 **Study abroad:** you have the opportunity to take part in a study abroad exchange in Europe through the Erasmus+ scheme, or further afield through our non-EU exchange scheme. See page 16 for more information.

**Immerse yourself in philosophical traditions:** explore the most prominent systems of thought and thinkers from ancient Greece to the present day.

**Benefit from a wide range of staff expertise:** including philosophy, the arts, and the natural and social sciences.

**Develop your career plans:** you write an extended, context-based dissertation each year on topics such as music, law or social issues. In your final year, you are encouraged to use your dissertation as a way to clarify your career plans and build a portfolio of knowledge and skills to help you succeed in a field that best matches your interests and abilities. Our dissertation modules allow you to link your philosophical studies to a particular employment niche, such as publishing, advertising, law or education.

**Enjoy close interaction with teaching staff:** small group tutorials allow staff members to get to know you and help you shape your own learning agenda.

**Develop transferable skills valued by employers:** such as analytical and research skills, the ability to present information professionally and articulate your thoughts persuasively.

**Join our philosophy student society:** settle into University life by joining our student-run society, which organises a variety of social events.

**Flexible study:** you have the opportunity to devote a third of your degree to other disciplines.



## Philosophy

BA Honours | V500 | 3 years | 

Our degree provides a thorough grounding in the main branches of philosophy, with a particular focus on the thinkers and concepts of the European continental tradition and the history of ideas. You explore the relationship between philosophy and other areas of human endeavour, such as the arts, religion, and natural and social sciences.

Flexibility and choice are built into every year of study, with up to a third of your topics at each Stage available from the wide range of art, language, social science and science options offered at the University.

Dissertation modules are taught in small groups, allowing you to use your philosophical studies to illuminate an area of interest or concern to you.

**Stage 1:** You cover topics in ethics, epistemology, the philosophy of religion and existentialism. You explore issues such as the nature of freedom and the self, the existence of God, and the origin of our ethical values. You engage with the ideas of philosophers like Plato, Descartes, Hume, Nietzsche, Sartre and de Beauvoir.

Your dissertation allows you to bring your studies and other interests into dialogue, writing on a topic of your choice, guided by your personal tutor. Students in the past have written on topics such as: modern music and authenticity; science fiction film and the nature of reality; and animal rights.

**Stages 2 and 3:** You focus on issues concerning political and social philosophy, metaphysics, the philosophy of culture and the arts, the philosophy of language, and the philosophy of science and technology. You study issues such as the nature of the just society, creativity and taste, artificial intelligence, the nature of mind, models of communication, and the nature of truth and knowledge.

You explore the work of philosophers such as Kant, Hegel, Heidegger, Arendt, Rawls and Foucault. Major dissertations in both Stages allow you to explore philosophical aspects of topics such as the relationship between truth and the art, verification in the sciences, advertising and mass culture, the model of learning in education, and the housing market and the notion of property.

## Your Future Career

Philosophy graduates have found work with almost every type of employer, including: the NHS; the Civil Service; law firms; charities; publishing and advertising companies. Some graduates continue to postgraduate-level studies; popular choices include law, journalism and media.

Our 2016 Philosophy BA Honours graduates are working in roles such as: candidate support specialist; graduate trainee; production runner; and recruitment consultant. 100% of our 2016 graduates are in work or further study.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of 18 UK, EU and international undergraduate Philosophy BA Honours leavers, within six months of graduating)

100% OF OUR  
PHILOSOPHY  
GRADUATES  
IN WORK  
OR FURTHER  
STUDY

DLHE 2015–16

# Physics

Degree	UCAS	Entrance requirements
Physics BSc Honours	F300	<b>A Level: AAB or A*BB</b> Including Mathematics and Physics, and excluding General Studies and Critical Thinking. Alternatively, ABB including Mathematics and Physics and excluding General Studies and Critical Thinking and including one A Level from: Further Maths, Biology, Chemistry, English Literature, Geography, History and Modern/Classical Languages, or grade 2 in any STEP paper. For all grades, Biology, Chemistry and Physics A Levels require a pass in the practical element.  <b>International Baccalaureate: 35–37 points</b> With Mathematics and Physics at Higher Level grade 6 or above.
Theoretical Physics BSc Honours	F345	
Physics MPhys Honours	F303	<b>A Level: AAA or A*AB</b> Including Mathematics and Physics, and excluding General Studies and Critical Thinking. Alternatively, AAB or A*BB including Mathematics and Physics and excluding General Studies and Critical Thinking and including one A Level from: Further Maths, Biology, Chemistry, English Literature, Geography, History and Modern/Classical Languages, or grade 2 in any STEP paper. For all grades Biology, Chemistry and Physics A Levels require a pass in the practical element.  <b>International Baccalaureate: 37 points</b> With Mathematics and Physics at Higher Level grade 6 or above.
Theoretical Physics MPhys Honours	F344	
Physics with Foundation Year BSc Honours	F304	If you do not have the right mathematics and/or science qualifications for direct entry, you may be eligible to take our Foundation Year. See online for specific requirements. This programme is not aimed at students who already have good grade A Levels in Mathematics or Physics.
Physics with Foundation Year MPhys Honours	F305	
Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a>		
<b>Pre-Entry Mathematics Course:</b> if you don't have the required mathematics qualifications, you may be invited to take our Pre-Entry Mathematics Course to develop the mathematical skills needed to study your degree. Find out more online in the Entry Requirements tab of your chosen degree.		
<b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222–223.		

**YOU MAY ALSO BE INTERESTED IN:** Chemistry; Electrical and Electronic Engineering; Mathematics and Statistics; Mechanical Engineering


## Your Future Career

A wide range of career destinations is available to our graduates, including: finance; engineering; electronics; education; nanotechnology; renewable energy; telecommunications; and the environment. Further study is also an option, including postgraduate courses for secondary school teaching and PhD courses.

DEGREES  
RECOGNISED  
BY THE  
INSTITUTE  
OF PHYSICS

## Why Study With Us?

Our degrees combine theoretical study and practical laboratory work to ensure that you develop the scientific knowledge and skills to excel in any area you choose to work in.

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

**Immerse yourself in topics at the forefront of research:** including fundamental questions about the origin, development and future of our world.

**Enjoy fantastic facilities:** learn in high-specification laboratories, stocked with leading experimental equipment.

**Get recognised:** all of our degrees are recognised by the Institute of Physics (IoP) and our undergraduates are eligible for free student membership of the IoP.

**Develop professional laboratory skills:** laboratory- and project-based modules provide opportunities to develop your experimental, analytical, computing and research skills.

**Get industrial experience with international employers:** make the most of our links with companies including BAE Systems and Rolls-Royce.

**Become a physicist of the future:** our degree content is driven and delivered by academic staff who are internationally leading researchers in their fields. You'll cover concepts such as fields, elementary particles, quantum theory, entropy and relativity.

**Benefit from our interdisciplinary approach and diverse research strengths:** including expertise in novel electronic materials and semiconductor devices, computational physics, quantum fluids, astrophysics, relativity, and the study of material properties at the nanoscale.

**DTUS sponsorship:** our degrees are approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)

## Physics

**BSc Honours | F300 | 3 years | **

**MPhys Honours | F303 | 4 years | **

You will develop a strong understanding of the fundamental pillars of physics and develop a grounding in advanced mathematics.

You will explore physics in the natural universe, including astrophysics and cosmology, as well as the physics that underpins emerging technologies, preparing you to contribute to the technological advances of modern society.

**Stage 1:** You cover topics in: classical dynamics; quantum mechanics including quantum tunnelling; astrophysics including exoplanets; mathematical methods and problem solving; electromagnetism; states of matter and materials including Bose–Einstein condensates; vibrations, waves and AC circuits; and laboratory physics.

**Stage 2:** You build on your knowledge of core concepts, including quantum mechanics and electromagnetism, and study modules in: thermodynamics; semiconductor devices; optics; materials and solid state physics; statistical mechanics; vector calculus; differential equations; and laboratory physics.

**Stage 3:** You study core subjects to an advanced level, including: quantum mechanics; classical dynamics; materials and solid-state physics; and electromagnetism. Optional modules in topics such as advanced astrophysics, relativity and cosmology, electronic devices, and fluid mechanics allow you to specialise in areas of interest to you.

Students on both the BSc and MPhys degrees take part in a group project, allowing you to build on your teamworking and practical skills. BSc students also conduct an individual project in an area of interest under the tuition of our expert academic staff, developing research, practical and presentation skills. MPhys students undertake an extended project that enhances their understanding of physics through the experience of a research project.

Projects let you explore areas of interest in greater depth and may be experimental, computational or theoretical, or a combination of these. A wide variety of projects is available, for example: astrophysics and cosmology, quantum theory (pure or applied), photonics, materials science, biophysics, medical physics, and semiconductor devices.

**Stage 4 (MPhys only):** Students on our four-year MPhys Honours degree gain a deeper understanding of physics, through advanced research-driven modules in their fourth year. This prepares you for a career in physical science or research, including study for higher degrees. You study applied, theoretical and computational physics and work with academics to plan and deliver an extended research project in an area of mutual interest.

You may choose to complete a work placement as part of your project, helping you enhance your CV and develop contacts in the workplace.

## Theoretical Physics

**BSc Honours | F345 | 3 years | **

**MPhys Honours | F344 | 4 years | **

You will develop a strong understanding of the fundamental pillars of physics, with a significant emphasis on the application of advanced mathematics to physical problems.

You will explore physics in the natural universe, including astrophysics and cosmology, as well as the physics that underpins fundamental physical processes, using a range of mathematical and computational techniques.

**Stage 1:** You cover topics in: classical dynamics; quantum mechanics including quantum tunnelling; mathematical methods and problem solving; astrophysics including exoplanets; electromagnetism; states of matter and materials including Bose–Einstein condensates; vibrations, waves and AC circuits; and laboratory physics.

**Stage 2:** You build on your knowledge of core concepts, including quantum mechanics and electromagnetism, and study modules in: thermodynamics; semiconductor devices; optics; materials and solid state physics; statistical mechanics; vector calculus; differential equations; computational modelling methods and fluid dynamics.

**Stage 3:** You study core subjects to an advanced level, including quantum mechanics, classical dynamics, materials and solid-state physics, and electromagnetism. Optional modules in topics such as advanced astrophysics, relativity and cosmology allow you to specialise in areas of interest to you.

Students on both the BSc and MPhys degrees take part in a group project, allowing you to build on your teamworking and practical skills. BSc students also conduct an individual project in an area of interest under the tuition of our expert academic staff; developing research, practical and presentation skills. MPhys students undertake an extended project that enhances their understanding of physics through the experience of a research project.

Projects let you explore areas of interest in greater depth and may be computational or theoretical in nature. A wide variety of projects is available, for example: astrophysics and cosmology; quantum theory; photonics; fluid mechanics; and computational modelling of materials.

**Stage 4 (MPhys only):** Students on our four-year MPhys Honours degree gain a deeper understanding of physics, through advanced research-driven modules in their fourth year. This prepares you for a career in physical science or research, including study for higher degrees. You study theoretical and computational physics and work with academics to plan and deliver an extended research project in an area of mutual interest. You may choose to complete a work placement as part of your project, helping you enhance your CV and develop contacts in the workplace.

## Physics with Foundation Year

**BSc Honours | F304 | 4 years**

**MPhys Honours | F305 | 5 years**

If you don't have the right mathematics or physics qualifications for direct entry to a physics degree at Newcastle, you might be eligible to take our Foundation Year.

This full-time programme covers core topics including foundation mathematics, foundation physics and an individual project, to prepare you to progress to an undergraduate physics degree.

Successful completion of the Foundation Year leads to progression to Stage 1 of one of our physics degrees.



Degree	UCAS	Entrance requirements
<b>Politics BA Honours</b>	L200	<b>A Level: AAA-ABB</b> General Studies is accepted. At least one A Level from a social science or humanities subjects such as History, Government and Politics, Geography, Economics, English or Philosophy is preferred but not required. A Level combinations are assessed on a case-by-case basis.  <b>International Baccalaureate: 32-34 points</b> With three subjects at Higher Level grade 5 or above.
<b>Politics and Economics BA Honours</b>	LL21	<b>A Level: AAA-ABB</b> General Studies is accepted. A or AS Level Mathematics and/or Economics is desirable but not essential. GCSE Mathematics (minimum grade A or 7) required if not offered at a higher level. At least one A Level from a social science or humanities subject such as History, Government and Politics, Geography, Economics, English or Philosophy is preferred but not essential. A Level combinations are assessed on a case-by-case basis.  <b>International Baccalaureate: 32-34 points</b> Higher Level Mathematics desirable at grade 5 or above. Standard Level Mathematics or Mathematical Studies required at grade 6 if not offered at Higher Level.
<b>Government and European Union Studies BA Honours</b>	L241	<b>A Level: AAA-ABB</b> General Studies is accepted. GCSE grade B or 6 or above required in a modern foreign language. If a candidate wishes to study French, German or Spanish at post-A Level standard, minimum grade B in the relevant A Level language is required. At least one A Level from a social science or humanities subject such as History, Government and Politics, Geography, Economics, English or Philosophy is preferred but not required. A Level combinations are assessed on a case-by-case basis.  <b>International Baccalaureate: 32-34 points</b> Standard Level grade 5 or above required from a modern foreign language or other evidence of foreign language ability. If a candidate wishes to study French, German, or Spanish at post-A Level standard, minimum grade 5 in the relevant higher level language is required.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222-223.

**YOU MAY ALSO BE INTERESTED IN:** Combined Honours (Politics, plus up to two other subjects); Economics; History; Politics and History; Politics and Sociology; Sociology

## Your Future Career

Our students go on to a range of careers and further study in politics-related fields and beyond, including: politics and government – for example, party researchers and elected representatives; civil/public service – such as policy advisers or managers in the Cabinet Office, Ministry of Justice, Independent Police Complaints Commission, hospitals and local government; global/national non-governmental organisations – Médecins Sans Frontières, Macmillan Cancer Support and Food Newcastle; and journalism – for example, writing for national newspapers.

Other graduates choose careers in management, business and finance, advertising or social work. Some study vocational courses in law, marketing or teaching, or continue with postgraduate study in areas such as politics, business and finance or the environment.



## Why Study With Us?

Politics takes you behind and beyond the headlines to explore how the world is, how it should be and how political change actually takes place.

### League table ranking:

- ▶ top 20 in the UK for student satisfaction (93% overall satisfaction score) – National Student Survey 2017
- ▶ top 200 – Social Sciences category – *Times Higher Education* World University Rankings by Subject 2018

**Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14-15.

**Study abroad:** you can take part in an optional study abroad exchange, usually for one semester. Placements are available in France, Germany, Spain, Denmark, Sweden, Norway, Holland, the USA, Canada, Australia, Hong Kong and Singapore. See page 16 for more information. Alternatively, you may work abroad in an approved organisation. Work or study in another EU country is a compulsory part of the Government and European Union Studies degree (see page 194).

**Enjoy outstanding teaching:** the innovative teaching of our staff has been recognised through student nominated teaching awards and commendations from our external assessors.

**Learn from international experts:** your modules draw on the internationally regarded research of our academic staff, so you study topics that reflect the latest political debate.

**Tailor your degree to your interests:** choose from topics spanning issues and ideologies, countries and continents, and shape your degree to suit your personal interests.

**Join a supportive community:** including a personal tutor, peer mentor, helpful academic staff, and an active student-run politics society, all under one roof in our dedicated Politics Building.

## Politics

BA Honours | L200 | 3 years |

This flexible degree covers all the main branches of the subject – international relations and global politics, political systems and institutions, and political philosophy – with extensive options to specialise in each.

You can choose most of your modules in a particular aspect of politics (for example, international politics or political theory) or keep a broad spread of interests. Up to a sixth of your modules at each Stage may also come from other subjects offered by the University, such as a modern foreign language, history or law.

**Stage 1:** We lay the foundation for your study of politics with modules in international politics, European and UK political systems, and political theory. You also take a module focused on developing your analytical and learning skills. You have a choice of optional topics from inside the subject area, as well as from courses such as geography, economics, history and sociology.

**Stage 2:** You deepen your understanding of political theory, international politics, and political systems – choosing from options including Russia, Africa, the European Union, the USA and the Middle East. You can choose to study further specialist modules in each of these areas. It is possible to spend a semester in Stage 2 or 3 at a partner university in Europe or beyond, or on an approved work placement overseas.

**Stage 3:** You develop your own research agenda, extending your knowledge and understanding of politics by choosing from a wide selection of modules on a diverse range of countries, concepts and issues. You also gain experience of, and confidence in, conducting your own research by completing either a dissertation, a research project or a community-based research module.

## Politics and Economics

BA Honours | LL21 | 3 years | 

This flexible degree is delivered jointly by Politics and Newcastle University Business School. It offers the exciting intellectual challenge of exploring two disciplines of central importance to the contemporary world, opening up a wide range of career pathways. You have the opportunity to specialise further in both disciplines as the degree progresses.

**Stage 1:** We introduce you to the study of economics through mathematically focused modules in economic analysis, political economy, mathematics for economics, and analysing economic data. You also cover core aspects of politics, choosing from optional topics that cover international politics, political thought, and UK and European political systems.

**Stage 2:** You deepen your understanding of economics and statistical techniques, with modules covering micro- and macroeconomic principles. You also have the freedom to choose from a range of politics modules, including international relations, political theory and political system modules including Europe, the USA, Africa, the Middle East and Russia.

You can choose to spend a semester in Stage 2 or 3 studying politics or economics at one of our partner institutions in Europe or beyond, or on an approved work placement.

**Stage 3:** You have the opportunity to shape your degree to your personal interests, selecting all of your topics from a diverse list of optional modules (half each from politics and economics). Modules are at an advanced level, and based on research undertaken in Politics and the Business School, meaning you extend and deepen your knowledge of both subjects. The dissertation, project and community-based research modules provide an excellent opportunity for you to conduct your own research into an area of politics that interests you.

*'Throughout my time here, I have never encountered a professor unwilling to help, if at any time you find yourself struggling. Interesting modules that cover a breadth of knowledge and teach you political research skills have also contributed to a great academic experience.'*

Gabrielle, Politics BA Honours

## Government and European Union Studies

BA Honours | L241 | 4 years | 

This degree focuses on the politics and culture of the European Union and its member states, alongside study of a modern European language. You can choose from French, German, Portuguese or Spanish, all of which may be taken at beginners', intermediate (eg post-GCSE/AS Level) or advanced (eg post-A Level) level. You spend a year abroad studying at one of our partner universities in Europe or in a work placement.

**Stages 1 and 2:** You take practical classes in your chosen language, to develop your speaking, reading, writing and listening skills. These are normally taught in your chosen language in small groups, by native speakers, to give you plenty of opportunity to practise your skills. You may choose to study a second language if you wish. You are introduced to the politics of the UK and the European Union, as well as research methods, international politics and political theory. A wide choice of optional modules allows you to follow your particular interests.

**Year abroad (compulsory):** You spend your year abroad studying at one of our partner universities or on a work placement abroad. This gives you the opportunity to improve your language skills significantly and gain direct experience of the politics, society and culture of another country.

**Stage 3:** You complete either a dissertation, a research project in politics, or a community-based research module. You also choose optional topics from the wide selection available in politics, languages and from other related subject areas.



# Psychology

Degree	UCAS	Entrance requirements
<b>Psychology BSc Honours</b>	C800	<b>A Level: AAA–AAB</b> Excluding General Studies. One science A Level is required, two are preferred*. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics plus a science (both minimum grade B or 6) required. <b>International Baccalaureate: 35 points</b> Three subjects at Higher Level grade 6 or above. At least two sciences at Higher Level are preferred. Mathematics or Mathematical Studies to be offered at Standard Level grade 5 if not offered at Higher Level. At least one third of all subjects taken must be science/mathematics.
<b>Psychology and Biology BSc Joint Honours</b>	C8C1	<b>A Level: AAA–AAB</b> Including Biology (at grade A) and preferably Chemistry, but excluding General Studies. Two science A Levels are preferred*. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics grade B or 6 required if not offered at A or AS Level. <b>International Baccalaureate: 35 points</b> With three subjects at Higher Level grade 6 or above including Biology. At least two sciences at Higher Level are preferred**. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level. At least one third of all subjects taken must be science/mathematics.
<b>Psychology and Mathematics BSc Joint Honours</b>	C8G1	<b>A Level: AAA–AAB</b> Including grade A in Mathematics and preferably Biology, and excluding General Studies. Two science A Levels are preferred*. For Biology, Chemistry and Physics A Levels we require a pass in the practical element. A GCSE science at a minimum grade B or 6 is required. <b>International Baccalaureate: 35 points</b> With three subjects at Higher Level grade 6 or above including Mathematics. At least two sciences at Higher Level are preferred**. At least one third of all subjects taken must be science/mathematics.
<b>Psychology and Nutrition BSc Joint Honours</b>	C8B4	<b>A Level: AAA–AAB</b> Including at least one subject with a substantial science or mathematics component from Mathematics, Biology, Physics, Chemistry, Statistics or Economics. Home Economics/Food Technology will be considered instead of Biology if accompanied by Chemistry at AS Level. General Studies not accepted. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics plus a science (both at a minimum grade B or 6) are required. <b>International Baccalaureate: 35 points</b> With three subjects at Higher Level grade 6 or above. At least two sciences at Higher Level are preferred. Mathematics or Mathematical Studies to be offered at Standard Level grade 5 if not offered at Higher Level. At least one third of all subjects taken must be science/mathematics.
<b>Psychology and Sport and Exercise Science BSc Joint Honours</b>	C8C6	<b>A Level: AAA–AAB</b> Including one science A Level and excluding General Studies and Critical Thinking.* Two science A Levels are preferred. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics and a science grade B or 6 required if not offered at A or AS Level. <b>International Baccalaureate: 35 points</b> With three subjects at Higher Level grade 6 or above. At least two sciences at Higher Level are preferred**. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level. At least one third of all subjects taken must be science/mathematics.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

\*We include Psychology, Biology, Chemistry, Physics, Statistics and Mathematics as science subjects.

\*\*We include Mathematics, Biology, Physics, Psychology and Chemistry as science subjects.

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.



## Why Study With Us?

Psychology is a science that explores why people and animals think and behave as they do.

### League table ranking:

- ▶ top 20 in the UK for student satisfaction (93% overall satisfaction score) – National Student Survey 2017
- ▶ top 20 in the UK – *The Times/Sunday Times Good University Guide 2018* and *The Complete University Guide 2018*
- ▶ top 200 – Psychology category – QS World University Rankings by Subject 2017

✓ **Professional accreditation\***: our degrees are accredited by the British Psychological Society (BPS). This equips you with the Graduate Basis for Chartered Membership with the British Psychological Society, providing you achieve a lower second-class Honours or above. This means you can join the BPS and will be eligible to go on to further training and, if successful, to practise as a professional psychologist.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement**: apply to spend nine to 12 months on an optional professional placement or work placement (subject to availability).

Some placements will be advertised for you to apply for, for example working with clinical psychologists, forensic psychologists, or psychology researchers. Alternatively, we can provide you with support to find your own placement, including help writing applications.

Undertaking a professional placement year will help you stand out in the graduate job market. It provides an invaluable opportunity to:

- ▶ apply your knowledge in a practical context
- ▶ further develop your graduate skills
- ▶ gain demonstrable work experience to showcase your skills to future employers

Find out more on pages 14–15.

**Study cutting-edge modules informed by our research expertise**: we offer a wide choice of final-year topics drawing on findings from the University's research centres in Neuroscience, Health and Society, and Linguistics and Language Sciences.

**Gain practical experience**: get involved in University experiments, run projects testing your own theories and hypotheses, undertake independent research, and apply for a research scholarship to work alongside researchers on vacation projects.

**Develop transferable professional skills**: in quantitative and qualitative data analysis, computing, report writing and presentation skills that you can take into a wide range of careers.

**Experience outstanding research facilities**: the Institute of Neuroscience research facilities are available for student projects and certified apprenticeships.

**Settle in with our support**: our supportive learning environment includes a student mentor, personal tutor and student-run society.

## Your Future Career

To become a practising psychologist you will need a combination of practical experience and further specialist training after you graduate. This might mean working as an assistant psychologist or in other roles related to the area of psychology that interests you. At Newcastle we have particular strengths in clinical and forensic psychology.

Alternatively, our graduates choose careers in areas such as: management and administration; HR; banking and finance; social work; teaching; the media; librarianship; and marketing.

**TOP 20 IN  
THE UK FOR  
PSYCHOLOGY**

*The Times/Sunday Times Good  
University Guide 2018 and  
The Complete University  
Guide 2018*

## Psychology

BSc Honours | C800 | 3 years | ✓📅

The first year (Stage 1) of this BPS-accredited degree consists of compulsory modules that set out the foundations of psychology and the associated life sciences. The second year (Stage 2) comprises some compulsory modules along with some optional modules, allowing you to focus on one of two professional pathways – a research pathway or a career development pathway.

In the third year, you have a free choice of modules, giving you the chance to explore and benefit from our internationally recognised research in areas such as: visual and cognitive neuroscience; animal behaviour; disorders of development; and forensic, health and clinical psychology.

**Stages 1 and 2**: Topics covered in the first year include: cognitive psychology; developmental and social psychology; evolution and genetics for psychologists; history of psychology; sensation and perception; and instinct, learning and motivation.

Three of our first-year modules (psychological enquiry, and research methods and skills I and II) are skills-based, training you in the skills essential to carry out psychological research such as conducting experiments, analysing and interpreting data, researching literature and writing up research reports.

You continue to practise and develop these skills in the second year along with more training in writing and critical evaluation of psychological material. You also study core compulsory modules which cover: developmental psychology; social psychology; individual differences; biological psychology; and statistics for experimental psychology.

Optional modules cover perception, animal cognition, cognitive neuroscience, clinical psychology, and abnormal psychology and psychiatry. Alternatively you can take a career development module.

You will also begin a professional skills module that will help you to reflect and develop your academic and vocational skills, preparing you for the workplace.

**Stage 3**: You have free choice from a wide range of specialist modules, which go into particular areas of psychology in greater depth. Examples include: evolution and behaviour; art, mind and brain; forensic psychology; eating and weight disorders; sex and human nature; and many others. You may also choose one approved module from outside the psychology programme.

A major element of this Stage is an empirical project, in which you devise, carry out and write up your own piece of original research. Among many choices, previous projects have explored topics such as: mental toughness and academic attainment; intolerance of uncertainty and adult separation anxiety; emotion perception of sex-offenders and non sex-offenders; and the effects of distraction on pain perception. In Stage 3 you also complete your professional skills module.

You have the opportunity to apply for a work placement between Stages 2 and 3 – see opposite.

*'I think there is a very high standard of teaching on my course. You can tell the lecturers are at the top of their field and are passionate about their subjects.'*

**Millie, Psychology BSc Honours**



## Psychology and Biology

BSc Joint Honours | C8C1 | 3 years |  

The degree allows you to combine the study of animal, plant and human biology with explorations of human and animal behaviour. You will enjoy a high level of laboratory experience and fieldwork, such as taking part in experiments, running your own and analysing the results.

It is accredited by the British Psychological Society (BPS). This gives you the Graduate Basis for Chartered Membership (providing you achieve the minimum standard of a lower second-class Honours). Having Graduate Basis for Chartered Membership means you can join the BPS and go on to further training or practice in psychology.

**Stage 1:** We introduce you to the key disciplines underpinning biology in areas such as: biochemistry; genetics; ecology; and evolution. In psychology, we cover topics such as: cognitive psychology; developmental and social psychology; personality and abnormal psychology; sensation and perception; and instinct, learning and motivation. You develop your communication and study skills by working in small group tutorials on a guided research investigation in psychology.

**Stages 2 and 3:** You continue to develop your knowledge in core areas of biology such as vertebrate biology and animal behaviour. You also study core psychology topics in more depth, including perception, social psychology and cognition.

At Stage 3 you have increasing freedom to tailor your study to areas that interest you. In biology, you choose from topics such as: genomics; evolution; vertebrate biology; animal ecophysiology; and animal behaviour. In psychology, you can choose from a wide range of optional modules such as: personality disorders; diagnosis, assessment and treatment of eating disorders; consumer psychology; and co-operation.

You have the opportunity to apply for a work placement between Stages 2 and 3 – see page 196.

## Psychology and Mathematics

BSc Joint Honours | C8G1 | 3 years |  

If you are interested in the workings of the human mind, mathematical skills can be invaluable in unlocking its secrets. This degree provides a thorough understanding of mathematical methods that psychologists use to explain and predict human behaviour and is professionally accredited by the British Psychological Society. You benefit from expert teaching in two subject areas and receive outstanding support to help you settle in to your studies.

You study core topics in mathematics and statistics. This is complemented at each Stage with topics from our Single Honours degree in Psychology.

For example, in psychology you will explore why humans and animals think and behave as they do, with topics including cognitive psychology and developmental and social psychology. In mathematics, you will develop a thorough grounding in topics and techniques such as differential equations and probability. You develop your communication and study skills by working in small group tutorials on a guided research investigation in psychology.

At Stage 3 you have a high level of flexibility to choose from topics linked to our current research. In mathematics and statistics these include Bayesian statistics and statistical inference, and in psychology they include abnormal psychology and psychiatry, personality and eating disorders, and forensic psychology. You can also choose optional modules to underpin your own project topic or focus on your own career development.

You have the opportunity to apply for a work placement between Stages 2 and 3 – see page 196.

*'If you would like to study psychology you should definitely consider Newcastle University. The course ensures you have a good grounding in psychology as well as allowing you to focus on more specialised topics in your third year.'*

Hannah, Psychology BSc Honours

## Psychology and Nutrition

BSc Joint Honours | C8B4 | 3 years |  

There is considerable overlap between nutrition and psychology. This degree lets you develop a strong understanding of both subjects, as well as the interactions between them. For example, consumer behaviours and decisions on food choice have a significant impact on health outcomes, including risks for obesity, heart disease and some cancers. These behaviours are affected by strong psychological aspects, which impact on people's perception of nutrition and health.

**Stage 1:** We introduce you to the basic concepts in psychology through core topics including cognitive psychology, sensation and perception, instinct, learning and motivation. You also study the fundamentals of nutrition, genetics and biological chemistry. You develop your communication and study skills by working in small group tutorials on a guided research investigation in psychology.

**Stage 2:** In psychology, you continue to develop your understanding of themes from Stage 1 in more depth, including social and developmental psychology and cognitive neuroscience. In nutrition, you explore the core areas of experimental human nutrition, immunology, and communication about food.

**Stage 3:** You study advanced nutrition topics such as: the scientific basis for setting nutrient requirements in people; nutrition and disease; and human nutrition and health. You choose from a range of psychology modules, which currently include areas such as: abnormal psychology and psychiatry; personality and eating disorders; and forensic psychology. You can also choose optional modules to underpin your own project topic or focus on career development.

You have the opportunity to apply for a work placement between Stages 2 and 3 – see page 196.

## Psychology and Sport and Exercise Science

BSc Joint Honours | C8C6 | 3 years |  

This degree allows you to combine the study of psychology with sport and exercise science. In sport and exercise science, you have the opportunity to study key disciplines, including bioenergetics, nutrition, physiology and psychology. In psychology, you explore why humans and animals think and behave as they do, through topics like social and developmental psychology and individual differences. You also cover advanced topics linked to the research of our staff, such as applied sport and exercise psychology and clinical psychology.

**Stage 1:** We introduce you to the basic concepts in psychology through core topics including cognitive psychology, sensation and perception, instinct, learning and motivation. You also study key disciplines of sport and exercise science including sport and exercise psychology, bioenergetics, and physiology. You develop your communication and study skills by working in small group tutorials on a guided research investigation in psychology.

**Stage 2:** You continue to develop your knowledge in core areas of sport and exercise science, including applied sport and exercise psychology, applied sport and exercise nutrition, and exercise physiology. You also study core psychology topics in more depth, including visual perception, social psychology and cognition.

**Stage 3:** You study advanced sport and exercise science topics including: clinical sport and exercise psychology; sport and exercise medicine; and factors affecting elite performance. You choose from a range of psychology modules, which currently include areas such as: abnormal psychology and psychiatry; clinical psychology; personality and eating disorders; and forensic psychology. You undertake an empirical project, giving you the opportunity to specialise in an area of psychology that interests you.

You have the opportunity to apply for a work placement between Stages 2 and 3 – see page 196.



# Sociology

Degree	UCAS	Entrance requirements
<b>Sociology BA Honours</b>	L300	<b>A Level: ABB–BBB</b>
<b>Politics and Sociology BA Honours</b>	LL32	<b>International Baccalaureate: 30–32 points</b>

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.


**YOU MAY ALSO BE INTERESTED IN:** Combined Honours (Sociology, plus up to two other subjects); History; Politics; Psychology


## Why Study With Us?

Sociology examines social structures, relationships and identities and focuses on contemporary issues such as social divisions, sexuality, health and inequality.

### League table ranking:

- ▶ top 20 in the UK – the *Guardian University Guide 2018*
- ▶ top 200 – Sociology category – QS World University Rankings by Subject 2017
- ▶ 92% overall student satisfaction score – National Student Survey 2017
- ▶ top 200 – Social Sciences category – *Times Higher Education World University Rankings* by Subject 2018

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

 **Study abroad:** you have the opportunity to gain an international perspective on your subject by taking part in a study abroad exchange in Denmark, Germany, Norway or Sweden through the Erasmus+ exchange programme. We also have links with non-EU universities in Canada, Australia, the US and Singapore. See page 16 for more information.

**Widen your horizons:** our degrees develop your 'sociological imagination', enabling you to engage critically and creatively with contemporary social issues. Our teaching includes a vibrant thread of anthropology, promoting multidisciplinary, and allowing you to explore cultural diversities across the globe.

**Discover a world of interests:** from local, everyday issues to national, global dynamics, expert staff will help you understand the diverse social processes that shape people's lives. Research-informed modules cover identities and personhood; cultural change and social transformation; media and society; health and illness; the body, gender and sexualities; refugees and migration; crime and cities.

**Enjoy learning that grows with you:** a carefully designed programme takes you from subject foundations to independent research. We value learning in partnership with our students – sharing real-world data in research-informed modules – and support you to analyse your own material as your skills develop.

**Settle in with our support:** become part of a welcoming academic community with a peer mentor and personal tutor and take part in our student-run Sociology Society.

**Develop skills that appeal to a wide range of employers:** such as critical thinking, problem-solving, presentations and communication, and team work. You'll gain independent research experience, skills in data analysis and project management through your dissertation.

## Sociology

BA Honours | L300 | 3 years |  

If you are curious about the social forces that shape people's everyday lives and keen to learn about different cultures and societies, this is the degree for you. Sociology means thinking critically about the world around us, exploring social institutions, social change, and the social dynamics that shape identities and interactions.

With support from enthusiastic expert staff, you can develop your own interests and gain a grounding in sociological and anthropological theories and research methods. You'll develop transferable skills including critical thinking, analysing complex data, and oral and written presentation skills.

**Stage 1:** You learn to develop a 'sociological imagination', get to grips with key perspectives in sociology and social anthropology, and discover how questions about the social world are generated and investigated. Through core modules you are introduced to important topics, including social inequalities, family and kinship, education and work, media and lifestyles, the state and citizenship. The Understanding Everyday Life module encourages you to make sociological sense of ordinary situations, people and things, through fieldwork as well as classroom teaching. You can also take an optional module from within sociology and beyond.

**Stages 2 and 3:** You continue to study core modules in research methods and social theory, with increasing opportunities to pursue topics that spark your interest from a wide variety of optional modules. These include topics such as: sociology of health and illness; refugees and displacements; regulating sexualities; spectacle, image and media; the politics of the arts; investigating the body; anthropology of belonging, life and death; sociology of childhood; anthropology of rights and wrongs; and many more.

In your third year you also write a dissertation. This gives you the opportunity to design and conduct an original piece of research in an area of your choice, with support from an experienced supervisor.

Our students have generated fascinating research findings on a diverse range of topics, such as: gender roles in India; music and Black Lives Matter; Benedictine monks; fan communities; the medicalisation of dying; and the 'selfie culture' in tourism.

## Your Future Career

Our graduates work across the public, private and not-for-profit sectors. Areas include: journalism; the Civil Service; education; NGOs and charities; HR; PR; and marketing.

Some graduates continue to postgraduate-level studies. Popular choices include Master's-level courses in teaching, media studies, social research, international politics and law conversion courses.

Our 2016 Sociology BA Honours graduates are working in roles such as: account executive; data migration specialist; human resources adviser; Revenue and Customs officer; and review and placement officer.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Sociology BA Honours leavers, within six months of graduating)



## Politics and Sociology

BA Honours | LL32 | 3 years | 

Political issues are invariably social issues, involving questions of power, inequality, conflict and change in contemporary societies. This degree allows you to explore the complex relationships between political institutions and ideologies, and social identities, dynamics and movements. Dividing your time equally between sociology and politics at each Stage of the degree allows you to develop a rich, in-depth and historically informed understanding of contemporary sociopolitical issues.

**Stage 1:** We introduce you to political thought and institutions, along with sociological perspectives and approaches. At Newcastle, we offer the tailor-made module Politics and Society for students taking this degree. This introduces you to the reciprocal relationship between political cultures and social life, and helps you build a solid foundation for integrating the two disciplines throughout your degree.

You also take a core module Truth, Lies and Politics, which equips you with research skills and the ability to present academic arguments. It also introduces the critical and moral issues involved in the creation of social-scientific knowledge.

You choose optional modules in both disciplines including: the sociological imagination; comparing cultures; foundations of political thought; and order and disorder: the shaping of the 21st century; among others.

**Stages 2 and 3:** You train in research methods and choose from a wide range of optional modules. In politics these include: critical international politics; the politics of Russia, Africa, the EU, Italy or the UK; political violence and the modern state; and power and protest in the Middle East. In sociology, optional modules include: memory, identity and nation-building in Eastern Europe; society and the utopian imagination; refugees and displacement; urban sociology; and many more. You write a dissertation based on your own research in either sociology or politics, or conduct a team research project with a local community organisation.



*'Newcastle University is a brilliant Russell Group university, with great opportunities for undergraduates to go into full-time work in relation to their degree.'*

Christina, Sociology BA Honours

# Speech and Language Sciences

Degree	UCAS	Entrance requirements
<b>Speech and Language Therapy BSc Honours</b>	B621	<b>A Level: AAB</b> Normally including one of the core sciences (Biology, Chemistry, Physics). If a candidate is not sitting any of the core sciences at A Level, we may accept a core science at AS Level. In this case, the typical offer would be AAB at A Level, and B for the AS Level core science. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. General Studies not accepted as a full A Level. GCSE Mathematics and English required (minimum grade B or 6) if not offered at a higher level.
<b>Master of Speech and Language Sciences MSc Honours</b>	B62M	<b>International Baccalaureate: 35 points</b> With three subjects grade 5 or above at Higher Level. A core science at grade 6 and Mathematics (or Mathematical Studies) and English at grade 5 required at Standard Level if not offered at Higher Level.

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** English Literature, Language and Linguistics; Medicine; Psychology

## Why Study With Us?

Speech and language therapists help children and adults overcome communication disorders.

### League table ranking:

- ▶ 3rd in the UK – *The Complete University Guide 2018* (Aural and Oral Sciences category)
- ▶ 4th in the UK – the *Guardian University Guide 2018* (Health Professions – Speech category)

✓ **Professional accreditation\***: we're currently working towards accreditation from the Royal College of Speech and Language Therapists (RCSLT) and approval by the Health and Care Professions Council (HCPC). Studying a professionally accredited degree means you are eligible to apply for registration with the HCPC as a speech and language therapist and to become a member of RCSLT.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Enjoy substantial clinical work:** work with adults and children in community clinics, hospitals, schools, specialist units and campus clinics.

**Benefit from research-informed teaching:** we conduct research in partnership with the NHS and this feeds directly into your classes. Case-based teaching develops your clinical problem-solving skills throughout your degree.

**Apply your learning in our campus clinics:** gain practical experience through individual and group therapy in our campus clinics: The Tavistock Aphasia Centre, the Children's Speech and Language Clinic and the Literacy Clinic.

**Learn in specialist facilities:** we have state-of-the-art facilities for computerised linguistics and phonetic analysis, as well as audio-visual equipment for use in clinical teaching.

**Enjoy close interaction with professionals:** work alongside local therapists and professional practitioners in hospitals, schools and clinics.



## Additional Admissions Information

### NHS constitution

We are seeking candidates who are personally attuned to the NHS values as stated in the NHS constitution, which can be found at <https://hee.nhs.uk/about-us/our-values>

### Disclosure and Barring Service (DBS) check

Students undertaking the Speech and Language Therapy and Master of Speech and Language Sciences degrees may have unsupervised contact with children or vulnerable adults. The School of Education, Communication and Language Sciences must therefore ensure that students undergo a Disclosure and Barring Service check to ensure they are fit to practise. We reserve the right to discontinue the studies of any student for whom an unsatisfactory DBS disclosure is received.

### Students with disabilities

Any students with disabilities, observable or otherwise, should let us know as early as possible when an offer has been made and before commencing the programme so that we can make reasonable adjustments.

## Speech and Language Therapy

BSc Honours | B621 | 3 years

## Master of Speech and Language Sciences

MSc Honours | B62M | 4 years

Speech and language therapists (SLTs) are responsible for assessing and treating people of all ages who have difficulty communicating. This could include adults who have trouble expressing themselves as a result of a stroke, people who have difficulty swallowing, using their voices, or speaking fluently, and children learning to talk or read and write.

These degrees teach you to accurately describe the symptoms of communication disorder, after which you learn to analyse patterns of disorder, make a diagnosis, and devise a treatment plan. We know that practical experience is important to help prepare you for your future career, so you will also gain clinical experience in all Stages of your degree.

**Stage 1:** We lay the foundation for later work with topics including anatomy and physiology of speech and language, linguistics and phonetics, developmental psychology, child language and development, clinical education and research methods. We also introduce you to case-based problem solving and case management. You complete a child study and work with a child and their family to observe and analyse typical development.

**Stage 2:** You continue to study linguistics, phonetics and psychology, and learn to apply information in the context of typical cases of communication disorder. You start to take responsibility, under close supervision, for assessment and treatment of cases in our in-house campus clinics.

**Stage 3:** You learn more about the speech and language skills of groups with a whole range of developmental and acquired speech and language difficulties. You also take modules on neurology and neuropsychology, social and abnormal psychology, and professional and clinical issues. Placements are available with different client groups, in a range of professional settings, including: hospitals; nurseries and schools; clinics; rehabilitation settings; and charities.

**Stage 4:** At Stage 4, Master's students are encouraged to pursue their own interests. You complete a dissertation and clinical project. You also focus on developing your leadership skills through continuing to build on your knowledge and understanding of the professional context and relevant legislation.

## Your Future Career

Most speech and language therapists are employed by the NHS to work in hospitals, clinics, paediatric assessment centres, adult rehabilitation centres or in the community. Once you qualify, you can specialise in a particular area of speech and language therapy, for example with children or adults, or relating to a particular type of impairment.

**3RD IN THE UK FOR AURAL AND ORAL SCIENCES**

The Complete University Guide 2018

# Sport and Exercise Science

Degree	UCAS	Entrance requirements
<b>Sport and Exercise Science BSc Honours</b>	C600	<p><b>A Level: AAA–AAB</b> Including at least one from Mathematics, Physics, Physical Education, Chemistry, Biology or Human Biology, and Psychology. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. Use of Mathematics, World Development, Communication and Culture, General Studies and Critical Thinking not accepted. At least five GCSE grades A*–B (or 8–6) required, including Mathematics and English Language.</p> <p><b>International Baccalaureate: 34–35 points</b> With at least one science at Higher Level grade 5 or above. Standard Level Mathematics or Mathematical Studies required at grade 4 or above if not offered at Higher Level.</p>
<p>Please check the full range of entrance requirements at: <a href="http://www.ncl.ac.uk/undergraduate/degrees">www.ncl.ac.uk/undergraduate/degrees</a></p> <p><b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see pages 222–223.</p>		

**YOU MAY ALSO BE INTERESTED IN:** Biology and Zoology; Medicine; Nutrition and Food; Psychology; Psychology and Sport and Exercise Science

## Your Future Career

Your degree could lead to roles in a wide range of industries, including: national governing bodies; UK institutes of sport; professional sports clubs; pharmaceutical and food and drink industries; health services; and education.

You could also undertake medical and health-related research in universities and research institutes, work in hospitals and public health laboratories, or take a further degree (either an MSc or PhD qualification). Our graduates also go into careers in management, accountancy and IT.

**TOP 20 IN THE UK FOR SPORTS SCIENCE**


The Complete University Guide 2018

## Why Study With Us?

We provide a strong scientific foundation in sport and exercise-related sciences and an understanding of how these relate to human performance and health.


### League table ranking:

- ▶ top 20 in the UK – *The Complete University Guide 2018* (Sports Science category)
- ▶ 92nd – Life Sciences category – *Times Higher Education World University Rankings by Subject 2018*
- ▶ Faculty of Medical Sciences is 8th in the UK for Medicine and Life Sciences research – Research Excellence Framework 2014

 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

We also provide lots of additional work experience opportunities, including:

- ▶ vacation studentship opportunities in one of our research laboratories
- ▶ paid part-time work in one of our research institutes through our laboratory assistant scheme
- ▶ employability ambassador scheme
- ▶ student mentoring scheme

 **Study abroad:** you can gain an international perspective on your subject by taking part in a study abroad exchange. We offer study abroad via exchange partners across Europe and in North America, Australia and Singapore. See page 16 for more information.

**Enjoy fantastic facilities:** including the Medical School's clinical skills lab, physiology labs, anatomy room and dedicated library. You'll learn from leading academics in exercise physiology, strength and conditioning, nutrition, biomechanics and sports psychology.

**Develop professional skills and knowledge:** develop key practical skills in the laboratory and in the field. These are attractive to employers in professional sport, industry, health promotion and education sectors.

**Conduct research in specialist facilities:** in your final year you'll complete a research project into an area that interests you. You'll have the opportunity to work alongside scientists from one of the Faculty of Medical Sciences' top-ranked research institutes.

**Benefit from our reputation for sporting excellence:** 'Team Newcastle' is top 10 for sport nationally and our sports scholarships provide additional financial, educational and mentoring support to help high-performing student athletes achieve their full potential.

**Enjoy excellent support:** you'll have a personal tutor and a student mentor. Our lecturers offer an open door policy and you will be supported in all areas of your study and student life.

## Sport and Exercise Science

**BSc Honours | C600 | 3 years |  **

This degree provides a strong scientific foundation in sport and exercise-related sciences and an understanding of how these relate to human performance and health.

You'll learn about the key areas of sport and exercise science, including: anatomy; physiology; biomechanics; psychology; bioenergetics and nutrition. The degree is taught in our Faculty of Medical Sciences and draws on our expertise in exercise physiology, nutrition, sport and health psychology, and biomechanics.

Your programme will include: seminars and workshops from industry partners and applied practitioners; the opportunity to work closely with elite athletes from the University's Team Newcastle; optional vocational modules to help you hone your career plans and boost your employability; and a major research project, to showcase your knowledge and skills.

**Stage 1:** This Stage provides you with foundation knowledge and skills in the key discipline areas of sport and exercise science. You study a range of topics spanning physiology, anatomy, biomechanics, psychology and biochemistry. You also learn about the principles of exercise, nutrition and health.

**Stage 2:** You build on the knowledge and skills obtained in Stage 1. You develop your understanding of the application of sport and exercise science to human performance and exercise behaviours. Topics include modules in applied biomechanics, psychology and nutrition. You also study exercise physiology, research methods, and principles of strength and conditioning.

**Stage 3:** You further develop the knowledge and skills learnt in Stages 1 and 2 through a multidisciplinary approach to sport and exercise science. You study modules in physical activity and disease, as well as sport and exercise medicine. A research project allows you to study a sport and exercise topic in detail, under the supervision of our expert research staff.

# Surveying and Mapping Science

Degree	UCAS	Entrance requirements
<b>Surveying and Mapping Science BSc Honours</b>	H244	<b>A Level: ABB</b> Excluding General Studies and Critical Thinking. Preference will be given to applicants with mathematical, science-based or geography A Levels. For Biology, Chemistry and Physics A Levels, we require a pass in the practical element. GCSE Mathematics grade B or 6 required if not offered at A or AS Level.
With Year in Industry BSc Honours	H249	
<b>Mapping and Geospatial Data Science MSci Honours</b>	H270	<b>International Baccalaureate: 34 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.
With Year in Industry MSci Honours	H271	

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Civil Engineering; Computer Science; Geographic Information Science; Mathematics and Statistics

## Your Future Career

Typical employers include: specialist land, air and offshore mapping companies; central and local government agencies; cartographic publishers; suppliers of computer-based mapping technology and GIS; and utility and civil engineering companies.

Other professions include computing, management consultancy, finance, teaching, or the armed forces. Your qualification will also have international appeal – some of our recent graduates are working in Australia and the USA.

Our 2016 Surveying and Mapping Science BSc Honours graduates are working in roles such as: assistant land and building surveyor; assistant site manager; assistant technical land surveyor; business consultant; engineering surveyor; and graduate land surveyor.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Surveying and Mapping Science BSc Honours leavers, within six months of graduating)

**WORK  
PLACEMENT  
OPPORTUNITIES**



## Why Study With Us?

If you're ready to develop your interest in mathematics, IT and geography into a rewarding career, these degrees are for you.

✓ **Professional accreditation\***: our Surveying and Mapping Science degree has dual accreditation from the Royal Institution of Chartered Surveyors (RICS) and the Chartered Institution of Civil Engineering Surveyors (ICES), which means that when you graduate you are already on the pathway to becoming a chartered surveyor.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a year in industry**: between Stages 2 and 3, spend a year on a paid industrial placement, where you'll gain first-hand experience of working in industry. You'll put your learning into practice, and test and develop your professional expertise. You'll also develop valuable workplace skills such as communication, teamwork and project management. Securing a placement will be your first step in the transition from study to employment and there is support to help you identify opportunities, write your CV and make applications.

**Enjoy outstanding career prospects**: from mapping utilities on large civil engineering sites to working offshore to position oil rigs and wind farms, there's no shortage of jobs for graduates with the unique combination of mapping, surveying and geomatics skills that our degrees offer.

**Enhance your employability with our industry links**: our strong industry links and annual careers fair help you find sponsorship opportunities, work placements and excellent graduate jobs.

*'The lecturers engage students during lectures and practicals and are always available to help with course work if needed.'*

Leslie, Surveying and Mapping Science BSc Honours

**Enjoy high levels of practical work**: there's fieldwork at every Stage, using an exceptional pool of industry-standard instrumentation and software. You'll become an expert in the use of cutting-edge technologies to measure the built and natural environments.

**Receive a starter pack of essential equipment**: containing resources and equipment to support your learning.

**Broaden your horizons with international experiences**: undertake work overseas on an expedition or attend an international student conference.

**Join a close-knit community**: we offer a friendly atmosphere, helped by our excellent student-staff ratio and team-building trip in your first week here.

**DTUS sponsorship**: our Surveying and Mapping Science degree is approved by the Defence Technical Undergraduate Scheme (DTUS), a Ministry of Defence sponsorship programme for students who want to join the armed services or the MoD civil service. [www.da.mod.uk/colleges-schools](http://www.da.mod.uk/colleges-schools)

## Surveying and Mapping Science

BSc Honours | H244 | 3 years | ✓

With Year in Industry  
BSc Honours | H249 | 4 years | ✓ 📅

These degrees fuse science and technology with aspects of geography to help you see how we map and measure the built and natural environments. A very high level of fieldwork makes this a highly practical programme. GPS, engineering surveying, 3D laser scanning and mobile map-making are examples of some of the technology you will encounter as you learn to collect and analyse data about the world around us.



You will have opportunities from your very first year to learn how to use our exceptional pool of industry-standard equipment and computer software that is state-of-the-art.

This degree is more mathematically oriented than our Geographic Information Science degree (see page 137), which focuses on the computer systems and software used for analysing geographic data.

**Stage 1**: You study alongside our Geographic Information Science students, learning about the key concepts in surveying, mapping and geographic information, often through outdoor and computer-based practical work. You also learn the fundamental skills you will need to succeed at university by studying modules such as mathematics and study skills. In the second semester, you undertake more practical land surveying work and start to explore GPS technology. A residential field course mapping a Lake District valley puts all your experience and theory into practice.

**Stage 2**: Having learned and practised key concepts, this year explores different aspects of surveying and mapping in more detail. You continue your studies in surveying and GPS technology, as well as exploring new topics such as: photogrammetry; laser scanning; digital surveying; and map projections and datums. You will also learn more about the role of research and professional practice in the surveying and mapping industry.

**Year in Industry**: Between Stages 2 and 3, students on our Year in Industry degree undertake a professional placement in the surveying and mapping science sector – see opposite.

**Stage 3**: This Stage starts with a residential field course where you apply your previous two years' work to surveying and mapping exercises such as structural monitoring, control surveys, and highways design. Your focus then turns to your independent research project, which runs throughout the year and forms a quarter of the final-year assessment. Written up as a dissertation, this develops your investigative, research and report presentation skills. You study advanced specialist modules in areas such as offshore surveying, geodesy and geohazards. You also have a choice of topics that are linked to our cutting-edge research, or employment sectors such as civil engineering.

## Mapping and Geospatial Data Science

MSci Honours | H270 | 4 years

With Year in Industry  
MSci Honours | H271 | 5 years | 📅

These degrees equip you with practical skills and knowledge in measuring, mapping, recording and managing information. You apply this knowledge to a range of areas, such as: urban; rural; mountainous; coastal; and the open sea. You'll gain in-depth understanding of a range of topics, spanning engineering surveying; geodesy; photogrammetry; cartography; GIS; and hydrographic survey and computing. Through a combination of field trips, project work and industry visits, you will graduate with the technical skills required to succeed in the surveying sector.

**Stage 1**: You study modules in: Geographic Information Systems; surveying; GNSS and its applications; principles of remote sensing; quantitative methods for geomatics; and informatics. You develop your mathematics and study skills, and take either a GIS or surveying field course.

**Stage 2**: You cover a range of compulsory topics, including: observation processing and analysis; map projections and geodetic datums; photogrammetry and laser scanning; applied remote sensing and image processing; digital data acquisition; Geographic Information Systems: theory and application; and spatial data modelling and BIM.

**Year in Industry**: Between Stages 2 and 3, students on our Year in Industry degree undertake a professional placement in the surveying sector – see opposite.

**Stage 3**: Your modules include: photogrammetry and laser scanning II; geohazards and deformation of the Earth; offshore surveying; environmental informatics; applied geospatial data handling; professional practice; and law and land use. You'll also undertake a second eight-day residential field course in either advanced surveying or GIS in Northumberland.

**Stage 4**: You study compulsory modules in: the environment business; advanced geodesy; and city analytics. You undertake an individual project on a geospatial data topic of your choice and choose from a range of optional modules including: traffic and environment management for sustainability; intelligent transport systems; modelling and forecasting of floods; big data analytics; and career development for Master's level students.

# Urban Planning

Degree	UCAS	Entrance requirements
Urban Planning BA Honours	K421	A Level: ABB–BBC
Master of Planning MPlan Honours	K400	International Baccalaureate: 28–32 points

Please check the full range of entrance requirements at: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**International Foundation Programmes:** if you are an international student and do not meet the academic and English language requirements, see pages 222–223.

**YOU MAY ALSO BE INTERESTED IN:** Architecture; Architecture and Urban Planning; Geography and Planning

## Your Future Career

Almost all of our planning graduates choose to pursue accredited town planner status. Others have gone on to become teachers, accountants, solicitors, academics, business managers and officers in the armed forces. It is also possible to take a Master's course, such as our MA in Urban Design.

Our 2016 Urban Planning BA Honours graduates are working in roles such as: assistant planner; graduate surveyor; graduate transport planner; and graduate urban designer.

(Destinations of Leavers from Higher Education survey 2015–16, based on responses of UK, EU and international undergraduate Urban Planning BA Honours leavers, within six months of graduating)



*"The quality of teaching on my course is outstanding. Each lecturer is so engaging and passionate about their subject that it makes each lecture enjoyable. Our lecturers prompt discussions as well as allowing you to come up with your own ideas."*

Ashleigh, Urban Planning BA Honours

## Why Study With Us?

If you're interested in your surroundings, concerned about how we create sustainable and healthy places to live and want to understand how to conserve our historic buildings, then a degree in planning could be for you.

### League table ranking:

► top 10 in the UK – the *Guardian University Guide 2018* (Building and Town and Country Planning category)

✓ **Professional accreditation\***: our Urban Planning BA Honours degree is professionally accredited by the Royal Town Planning Institute (RTPI). This means it satisfies the standards set by the planning profession.

Our four-year MPlan degree is dual accredited by:

- the Royal Town Planning Institute (RTPI) and fully meets the educational requirements for chartered membership. You will need to first complete two years' experience in a planning practice and our Certificate in Planning Practice counts as one of these two years
- the Royal Institution of Chartered Surveyors (RICS) via its planning and development pathway, and meets the educational requirements for chartered membership

BA Urban Planning and MPlan students will be automatically enrolled to free student membership of the RTPI at the start of their degree (individuals can opt out). MPlan students can register as a student for RICS membership via RICS's website.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

📅 **Boost your CV with a work placement:** apply to spend nine to 12 months on an optional work placement (subject to availability). Find out more on pages 14–15.

✈️ **Study abroad:** taking advantage of our strong European links, as founder members of the Association of European Schools of Planning, you will have the opportunity to experience differences in planning approaches outside the UK through European field visits. MPlan students have the opportunity to gain an international perspective on your subject by taking part in the University's Erasmus+ programme in Stage 4. See page 16 for more information.

📍 **See where your interests lie with a choice between BA or MPlan degrees:** BA and MPlan students study the same programme for the first three years (Stages 1 to 3) so transfer is possible between the two degrees up to the end of the third year. This gives you time to decide whether you want to pursue chartered town planner status as your knowledge of the subject develops.

It is also possible to combine planning with another subject through our degrees in Architecture and Urban Planning BA Honours (see page 59). or Geography and Planning BA Honours (see page 137). Both of these degrees allow for potential transfer to our Single Honours courses at the end of Stage 1 should you decide to pursue a career as a planner.

🌍 **Enjoy field trips to experience planning in action:** experience different examples of planning practice through projects and field trips in the UK and Europe.

📅 **Take a year out in planning practice:** we offer the unique opportunity to gain a Certificate in Planning Practice with a year-out paid placement, which counts as one of the two years' practice required for chartered town planner status.

🎓 **Benefit from our wide-ranging expertise:** receive expert teaching, drawing on our breadth of built environment expertise spanning: urban planning; architecture; landscape architecture; urban design; and digital architecture.



## Urban Planning

BA Honours | K421 | 3 years |   

This degree equips you with the professional knowledge and skills to pursue a career in town planning. You study core topics including planning processes, design awareness, conservation and housing policy.

You undertake projects that address real-life planning situations and challenges, taking you out into the city and beyond.

Newcastle is a dynamic and vibrant city with an internationally acclaimed conservation area at the heart of its city centre. It has undergone dramatic cultural regeneration in recent decades making it a fantastic place in which to study planning.

**Stage 1:** You build a firm foundation in urban planning. You learn to 'read' a city and understand the importance of design and sustainability. You also develop knowledge of the political, social and economic forces that shape society and cities. Modules include: design awareness and communication; planning processes; and economics of development.

**Stage 2:** You focus on professional development and skills. You learn vital research methods as well as developing an understanding of professionalism in the planning sector. You have a choice of optional modules to help tailor the Stage to your personal interests, such as: housing policy; design and neighbourhood; urban poverty; and understanding cities. You can also choose to take a European field trip.

**Stage 3:** You study modules concerned with strategic planning, planning politics and development management. A dissertation gives you the chance to study in depth a topic of interest to you, showcasing your knowledge and skills to future employers.

## Master of Planning

MPlan Honours | K400 | 4 years |   

This degree follows the same programme as our Urban Planning BA Honours for the first three years. After Stage 3, you complete a year in planning practice. This equips you with valuable work experience that makes you stand out in the graduate job market. It also puts you on course to achieve chartered town planner status. You then return to the University to complete a final year of advanced specialist study.

**Stages 1 to 3:** See Urban Planning BA Honours, left.

**Certificate in Planning Practice:** The certificate is a one-year work placement between Stages 3 and 4 of our MPlan degree. The placement is paid (salaries up to £24,000) and counts as one of the two years' practice required to gain RTPI membership (see [Professional accreditation](#) page 211). You also complete three practice-based modules.

We source placements on your behalf and receive details of a wide range of positions, both in the public and private sectors and in a range of locations across the UK, to help you find a host organisation. During your second year, we provide training in interview practice, CV writing and other key job-hunting techniques.

Recent host organisations include Transport for London, Fairhurst, North of England Civic Trust, Rolfe Judd, and Bellway Homes, as well as many local authorities. Many students return to permanent positions with their host organisations after completion of the MPlan.

**Stage 4:** You return to the University to complete a final year of advanced professional modules in planning. Based full-time at the University, you will have the opportunity to work with outside planning and planning-related organisations on live reports, and attend practitioner workshop sessions. You choose from two specialist study themes: planning and regeneration, or environmental planning. You also have the opportunity to spend a semester studying in Europe.

# Newcastle University London

Degree	UCAS	Entrance requirements
<b>Accounting and Finance BSc Honours</b>	N402	<b>A Level: AAB</b> Excluding General Studies. Minimum grade A or 7 in GCSE Mathematics and grade B or 6 in GCSE English (if not offered at a higher level)*.
<b>With Placement BSc Honours</b>	N404	<b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level*.
<b>International Business Management BSc Honours</b>	N122	<b>A Level: AAB</b> Any subject combinations accepted excluding General Studies. Minimum grade B or 6 in GCSE Mathematics and English and in a GCSE modern language (eg French) if not offered at A or AS Level. There are different pathways through the degree depending on your language level and needs*.
<b>With Placement BSc Honours</b>	N123	<b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level. Standard Level grade 5 or B in GCSE English and in a Modern Language (eg French) also required if not offered at Higher Level*.
<b>International Marketing and Management BSc Honours</b>	N5N2	<b>A Level: AAB</b> Any subject combinations accepted excluding General Studies. GCSE Mathematics and English (minimum grade B or 6) required if not taken at A or AS Level*.
<b>With Placement BSc Honours</b>	N5N3	<b>International Baccalaureate: 35 points</b> Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level*.
<b>Integrated Undergraduate Degrees for international students</b>		<b>Academic entry requirements:</b> Completion of 12 years of schooling (or the local equivalent to meet the same standard) with good grades. For detailed information contact: <a href="mailto:newcastlelondon@ncl.ac.uk">newcastlelondon@ncl.ac.uk</a>
<b>Accounting and Finance with Foundation Year BSc Honours</b>	N406	<b>English language requirements:</b> IELTS 6.0 (with a minimum of 5.5 in all subskills) or equivalent. If you do not meet the minimum English language requirements you should apply for Academic English (see page 217 for details). Please note that in addition to the UKVI IELTS, we can accept other English language qualifications. For more information contact: <a href="mailto:newcastlelondon@ncl.ac.uk">newcastlelondon@ncl.ac.uk</a>
<b>International Business Management with Foundation Year BSc Honours</b>	N124	
<b>International Marketing and Management with Foundation Year BSc Honours</b>	N5N5	
*Please check the full range of entrance requirements, including additional information about GCSE (or equivalent) requirements, at: <a href="http://www.ncl.ac.uk/london/courses/undergraduate">www.ncl.ac.uk/london/courses/undergraduate</a>		
<b>International Foundation Programmes:</b> if you are an international student and do not meet the academic and English language requirements, see page 217.		

**YOU MAY ALSO BE INTERESTED IN:** Accounting and Finance, Business Management and Marketing at our Newcastle campus; English language and university preparation courses at Newcastle University London

## Why Study With Us?

Newcastle University London works hand in hand with industry to help you develop the skills and knowledge that top employers demand.

**Boost your CV with work placements and internships:** take a one-year work placement as part of your degree (subject to availability). We'll support you to find a suitable placement, including help to write your CV to send out to our industry contacts. You'll gain first-hand experience of working in the sector, putting your learning into practice and developing your professional expertise.

**Professional accreditation\*:** if you want to become a chartered accountant it's important to study a degree that is professionally accredited. Our Business School is accredited by the Association to Advance Collegiate Schools of Business (AACSB).

Our Accounting and Finance BSc Honours degree is accredited by the Association of Chartered Certified Accountants (ACCA), the Association of International Accountants (AIA), the Institute of Chartered Accountants in England and Wales (ICAEW) and the Chartered Institute of Management Accountants (CIMA) for the purpose of exemptions from some professional examinations.

Our International Marketing and Management programme is accredited by the Chartered Institute of Marketing (CIM), meaning you gain up-to-date knowledge of the latest marketing trends and develop the practical skills needed to succeed in the marketing industry.

\*All professional accreditations are reviewed regularly by their professional body. Check online for the most up-to-date information by course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

**Engage in masterclasses and public lectures:** top business leaders give weekly masterclasses and free public lectures, helping you stay connected.

**Work on practical projects:** nothing makes a CV stand out like experience, that's why our students undertake projects in real-life environments. Opportunities include writing case reports for multinational and national companies, and taking part in our Market Challenge, enabling you to put your business acumen to the test.

**Join a friendly community:** we bring the warmth of Newcastle University to the capital, providing a friendly and supportive learning community to help you make the most of your degree.

**Industry-immersive education:** begin your career connected. From day one, you'll learn from academics with industry experience to develop the skills sought after by top global companies.

GET  
PRACTICAL  
EXPERIENCE  
WITH A WORK  
PLACEMENT

## Your Future Career

Our accounting and finance degrees provide you with the knowledge you need to pursue chartered accountant status. Our business and marketing degrees will help you pursue a career in international, multinational or global organisations and contexts.

## Accounting and Finance

BSc Honours | N402 | 3 years | ✓

With Placement

BSc Honours | N404 | 4 years | ✓

This programme provides a firm foundation in accounting and finance and is accredited by the three major professional accounting associations. You'll learn a balance of academic theory and real-life problem-solving skills.

**Stage 1:** You are introduced to the subject area through core topics covering: introductory economics; introduction to financial accounting; introduction to management accounting and finance; and professional skills for accounting and finance. We balance this with a range of business disciplines, including an introduction to management and organisation, and an introduction to business law.

**Stage 2:** You begin to develop your skills in finance, financial accounting and management accounting through studying the following modules: corporate finance; financial control; intermediate financial accounting; managerial and business economics; auditing; and understanding company accounts.

**Work placement (N404):** Between Stages 2 and 3 you have the opportunity to spend a year on a work placement. We have established links with global companies such as HSBC, Thomas Cook and Capita to ensure that you are given real business experience during your year in work, so you gain insight into how an international organisation operates. While on placement you complete a personal learning record and reflective learning account.

**Stage 3:** You complete further compulsory modules covering: accounting, organisations and society; derivative markets; financial accounting; international financial management; management accounting; and taxation in accounting.

## International Business Management

BSc Honours | N122 | 3 years

With Placement

BSc Honours | N123 | 4 years |

This degree is designed for students who wish to pursue careers in international, multinational or global organisations or contexts, and takes advantage of our location in London's financial district. You will benefit from exposure to a variety of global businesses, work placement opportunities and masterclasses delivered by industry professionals.

**Stage 1:** You begin studying the main disciplines of international business management, covering: fundamentals of accounting and finance; international business and management; introduction to management and organisations and quantitative methods for international business management. Foreign languages modules are a core component of Stage 1 (for native English speakers or those with an IELTS score of 7.0 or above), and business English modules (for international students).

**Stage 2:** You focus on the functional aspects of international business management, covering: global perspectives in managing people and organisations; global strategic marketing; international finance and financial markets; and operations management. You will continue to build your language learning during Stage 2.

**Work placement (N123):** Between Stages 2 and 3, you have the opportunity to spend a full academic year on a work placement. While on placement you complete a reflective learning report.

**Stage 3:** You focus on the strategic aspects of international business management, covering: advanced global strategy; contemporary issues in international business management; and international business diplomacy. You then take a dissertation or research project on an international business management topic of your choice.

Native-English speakers and students with an IELTS score of 7.0 or higher have the option of studying a foreign language throughout their studies. Non-native English speakers with an IELTS score of 7.0 or lower will study business English and communication modules. For more information, contact [newcastlelondon@ncl.ac.uk](mailto:newcastlelondon@ncl.ac.uk)



## International Marketing and Management

BSc Honours | N5N2 | 3 years | ✓

With Placement

BSc Honours | N5N3 | 4 years | ✓📅

This programme is a vocationally orientated degree for students wishing to pursue careers as managers and marketing professionals working in an international context. It combines business management with contemporary marketing theory and practice.

You'll gain significant real-world business experience, and benefit from our strong links with globally recognised companies, preparing you for a career in management or as an entrepreneur.

**Stage 1:** You are introduced to key concepts and methods. These include: critical perspectives on business growth; consumer behaviour; introduction to management and organisation; introduction to marketing; academic and professional skills; and quantitative methods for international business management.

**Stage 2:** You focus on: business enterprise (real business simulation over one year); global perspectives in managing people and organisations; global strategic marketing; marketing communications; operations management; and research methods for business and marketing.

**Work placement (N5N3):** Between Stages 2 and 3, students on the four-year degree with placement will have the option to spend a full academic year on a work placement. While on placement you complete a reflective learning report and personal learning record.

**Stage 3:** You take modules in: advertising and integrated brand promotion; direct and digital marketing; electronic business; and management, creativity, design and innovation. You will also complete a dissertation or practical consultancy project.

*'Many of the lecturers have industry experience and continue to do consultancy work with corporate organisations – it's amazing to get first-hand knowledge from them.'*

Muhammad, International Business Management BSc Honours

## Integrated Undergraduate Degrees for international students

### Accounting and Finance with Foundation Year

BSc Honours | N406 | 4 years | 📅

### International Business Management with Foundation Year

BSc Honours | N124 | 4 years | 📅

### International Marketing and Management with Foundation Year

BSc Honours | N5N5 | 4 years | 📅

International students at Newcastle University London have the option of combining an International Foundation in Business with one of our three undergraduate degrees. This four-year programme (or five with a work placement) gives foundation students the convenient opportunity to complete their studies with us in a single programme.

These programmes are designed to improve your English language skills, increase your knowledge of academic theory, and develop your research skills and understanding of key academic subjects before beginning your undergraduate degree. With an integrated foundation year and undergraduate programme, you only need to apply for one visa for the duration of your studies with us.

For more information contact [newcastlelondon@ncl.ac.uk](mailto:newcastlelondon@ncl.ac.uk)



## English language and university preparation courses

If you're an international or EU student thinking about studying at Newcastle University London, we can help you prepare academically, gain the appropriate qualifications and meet the English language requirements of your chosen degree.

English language courses	Overview	Start dates
<b>Academic English</b>	This course focuses on academic English and the study skills you need for entry to a further academic preparation programme or degree at Newcastle University London.	October, January, April, July
<b>Pre-sessional English</b>	If you already hold an offer to study at Newcastle University London, this course provides intensive English language preparation to help you improve your English. A 6- or 10-week course held over the summer.	June, July
University preparation courses	Overview	Start dates
<b>International Foundation in Business</b>	This course offers you progression to Year 1 of an undergraduate degree at Newcastle University London in Accounting and Finance, International Business Management or International Marketing and Management. You study: English for academic purposes; study skills and project; introduction to accounting; introduction to the study of business; and maths for business.	July, September, January
<b>International Year One in Business</b>	This course is equivalent to studying Year 1 of a UK undergraduate degree. Successful completion offers direct entry to Year 2 of an undergraduate degree at Newcastle University London in International Business Management or International Marketing and Management.	July, September, January

Please check the full range of entrance requirements at: [www.ncl.ac.uk/london/courses/university-preparation](http://www.ncl.ac.uk/london/courses/university-preparation)

For more information, including how to apply, see [www.ncl.ac.uk/london/apply](http://www.ncl.ac.uk/london/apply)



# Essential information



The Old Quadrangle

## Your application

We welcome applications from students from a wide variety of backgrounds who can show the motivation, ability and potential for university study. We also accept a broad range of qualifications. We hope the information in this section will answer many of your questions about the applications and admissions process at Newcastle. If you have any remaining questions please contact Student Services, who will be happy to help (see page 220 for details).

### Applying to Newcastle University

The 'Qualifications' section on page 221 provides information about the UK, EU and international qualifications we accept and details of our English language requirements.

Check online for the most up-to-date course and entry requirement information for your chosen degree at [www.ncl.ac.uk/undergraduate](http://www.ncl.ac.uk/undergraduate)

International students should visit our country pages to see which international qualifications we accept: [www.ncl.ac.uk/international/country](http://www.ncl.ac.uk/international/country)

If you are studying qualifications that are not listed in this Prospectus, or on our website, please contact Student Services to confirm the acceptability of your qualifications (see page 220 for details).

To apply for undergraduate study at Newcastle University you must use the online application system managed by the Universities and Colleges Admissions Service (UCAS) at [www.ucas.com](http://www.ucas.com)

The institution name and code for Newcastle that you will need in your UCAS application are NEWC and N21.

### Deferred entry

Admissions tutors in all subject areas will consider requests from applicants who wish to defer entry by one year. We expect to see on your UCAS application some indication of how you intend to spend the year; for example, some students choose to gain wider experience and increased maturity from a year spent in such activities as work experience, travel abroad, GAP projects, voluntary work, language courses or working to save money.

If you decide you wish to defer entry after you have submitted your UCAS application, you must write to tell us of your change of intention and at that stage outline your plans for the year.

If you decide to apply after you receive the results of your examinations, you should make sure that you will be contactable during your year

out so that you will be able to make decisions on accepting and declining offers, and answer any queries relating to your application.

### Disabled students and students with specific learning difficulties and long-term mental health conditions

We are committed to providing an accessible environment for disabled students and students with specific learning difficulties and long-term mental health conditions, and a range of support is available at the University.

We encourage you to contact us before you apply so you can find out more about the University's provision for disabled students and make an informed decision about whether we are the right university for you.

If you notify us when booking on to one of our Open Days, we can arrange for you to meet informally with members of our Student Wellbeing team. We can also organise any particular support requirements you may have for the day. Alternatively, you can arrange an individual visit.

We strongly encourage you to disclose any information relating to your disability or medical condition in the appropriate section of your UCAS application. This will enable us to contact you with more information about our service and to invite you to meet a member of the appropriate team.

Your application will receive an acknowledgement email that includes a secure link to a webform if you wish to provide more information about your support requirements. This is submitted direct to Student Wellbeing and will not be shared without your agreement. Any information you choose to submit will help us to support you on admission.

We can also provide degree-related information in alternative formats such as large print, Braille and audiotape. Please contact Student Services (see page 220 for details).

[www.ncl.ac.uk/students/wellbeing](http://www.ncl.ac.uk/students/wellbeing)



## Mature students

We welcome applications from all candidates, regardless of age or background. We know that mature students (aged 21 or over at the time of entry) return to education for a variety of reasons, including enhancing their career prospects, after raising a family, or as a rewarding challenge in retirement. These differences are evident in the diverse mix of backgrounds and professions of our current mature student population.

To apply for undergraduate study at Newcastle you must use the UCAS online application system at [www.ucas.com](http://www.ucas.com). When we receive your UCAS form, we look for evidence of your potential to study successfully within higher education and are particularly interested in any qualifications you are currently taking or have already gained (whether recently or in the past). We may also take life experience, motivation, interests and work experience into consideration, especially if they are relevant to the degree for which you have applied.

Each year our Student Wellbeing team organises a Mature Student Event to provide information, advice and guidance on a range of relevant issues. It also provides a great opportunity for you to:

- ▶ find out more about what it is like when you start University
- ▶ meet current undergraduate mature students who will share their experiences of student life
- ▶ meet other mature students who will be starting at the same time as you

If you have any questions about applying to Newcastle University as a mature applicant, please contact Student Services (see below for details).

### Student Services

Newcastle University, King's Gate  
0191 208 3333 (+44 191 208 3333)  
[www.ncl.ac.uk/enquiries](http://www.ncl.ac.uk/enquiries)

## The admissions process

### Assessing your application

We make offers on the basis of individual achievement, ability and potential to succeed.

Each degree also has specific criteria on which admissions decisions are based. This includes particular requirements relating to entry grades and, in some cases, details of particular subjects you need to have studied at a certain level prior to entry.

Entry to many of our degrees is extremely competitive and there are often very large numbers of well-qualified applicants. Admissions tutors take into account the whole application when assessing your ability and potential, not just your examination performance.

This may include, for example:

- ▶ your personal statement
- ▶ your school or college reference
- ▶ evidence of relevant skills or aptitude
- ▶ any special circumstances that affect your application

You should not, therefore, assume that you are certain to receive an offer because you have achieved, or are predicted to achieve, the grade requirements for a particular degree.

### UCAS Tariff points system

Our admissions tutors do not use the UCAS Tariff points system for expressing conditional offers, although they may use it to help them to assess the equivalence of different combinations of qualifications offered by candidates. Achievement of an equivalent number of points does not necessarily mean you have fulfilled the terms of the conditional offer.

### Types of offer

If you receive an offer from Newcastle, it may be one of two types:

- ▶ Unconditional offer: a place has been offered with no conditions because you have already satisfied the requirements for entry
- ▶ Conditional offer: you need to meet certain conditions before your place is confirmed – admissions tutors usually express conditional offers in terms of specific grades (for example AAB). In some cases, you will be asked to achieve particular grades in certain subjects

### Clearing

If you don't get the results you need for your chosen course, don't panic. We welcome applications through Clearing, which gives you the chance to apply for other courses. For more information, see [www.ncl.ac.uk/clearing](http://www.ncl.ac.uk/clearing)

## False or misleading information

We make offers on the understanding that if you accept a place at Newcastle you will agree to observe the General Regulations of the University, which can be found on the University's website at [www.ncl.ac.uk/regulations/docs](http://www.ncl.ac.uk/regulations/docs)

The General Regulations allow the University to exclude students who are found to have provided false or misleading information in support of their application.

For details of the University's full terms and conditions, see [www.ncl.ac.uk/pre-arrival/regulations](http://www.ncl.ac.uk/pre-arrival/regulations)

### Qualifications

All qualifications that are of a suitable academic level to constitute appropriate preparation for the degree considered will be considered for entry to Newcastle. Some of our degrees also require you to have studied specific subjects at a certain level prior to entry. Where relevant this information is included in the typical entrance requirements information. In this Prospectus, we express our entrance requirements in terms of A Levels and the International Baccalaureate (IB).

Our website ([www.ncl.ac.uk/undergraduate](http://www.ncl.ac.uk/undergraduate)) also lists typical entrance requirements for each degree for students studying the following qualifications:

- ▶ A Levels
- ▶ Scottish Qualifications
- ▶ International Baccalaureate
- ▶ Irish Leaving Certificate
- ▶ Access Qualifications
- ▶ BTEC Level 3 National Extended Diploma/OCR Cambridge Technical Level 3 Extended Diploma
- ▶ Cambridge Pre-U

If the qualifications you have or are studying are not listed in this Prospectus, or online, please contact Student Services to see whether they are acceptable for entry to a particular degree (see opposite for details).

### A/AS Levels

A/AS Levels are currently the most common qualifications presented by applicants to Newcastle University. We specify typical A Level entry requirements in terms of three grades. Unless otherwise indicated, the grades refer to A Level, including double awards. In the majority of cases, we make conditional offers on the basis of achievement at the end of Year 13 or final year at college. For entry in 2019, we will not normally require applicants to have achieved more than three single-award A Levels or equivalent for entry.

If you are studying for an AS Level in a fourth subject, we will take it into account as part of your overall application profile, and most admissions tutors are equally happy for this to be either a contrasting or complementary subject. If you have not taken four subjects, however, you will not be disadvantaged in your application.

## International qualifications

As an international university, we welcome applications from international students and consider all applications on an individual basis.

Please visit our country pages to see which international qualifications we accept for direct entry onto our undergraduate programmes. Should your qualification not be listed, please contact our Student Services for more information (see opposite for contact details). [www.ncl.ac.uk/international/country](http://www.ncl.ac.uk/international/country)

## English language requirements

If English is not your first language, you will need to show that you have an adequate knowledge of written and spoken English before you begin your studies at the University. We typically require a score of IELTS 6.5 or equivalent for direct entry to the University. Some degrees require a minimum of IELTS 7.0 or 7.5 or equivalent, whereas others will accept a minimum of IELTS 6.0 or equivalent. Check the entry requirements page of your chosen degree online for specific English language requirements for your course: [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees)

Tier 4 visa application students (who are not from a Home Office-accepted majority English-speaking country) also need to be proficient at level B2 of the Common European Framework for Languages in each of the four components of language learning (reading, writing, speaking and listening). This is equivalent to at least IELTS 5.5 in each of the four components. For a full list of English language qualifications currently considered, see [www.ncl.ac.uk/international/language](http://www.ncl.ac.uk/international/language)

We offer a range of English language support courses to international students to assist you during your academic studies; please visit pages 222–223 for more information.

We also offer a variety of foundation programmes and university preparation courses. See page 223 and individual subjects for further information.

# International students

As part of our exceptional student experience and teaching excellence, we also provide a range of services especially for international students to support you as soon as you join us.

## Our community

We warmly welcome international students into the heart of our inclusive and collaborative learning community. Over 6,500 international students currently call Newcastle University home and our global network of over 190,000 graduates are working in all seven continents of the world.

## Meeting us

Our international staff regularly travel abroad to meet new students and can answer any questions you may have. We also work with international education agents who can support you through your application process. Discover where we are visiting, or find an education agent near you, at: [www.ncl.ac.uk/international](http://www.ncl.ac.uk/international)

## Immigration and visa support

Students from outside the UK or EU will normally have to apply for a study visa under the Tier 4 points-based immigration system. We have a dedicated Visa Team which provides advice and guidance on the process of securing a visa and other immigration issues. [www.ncl.ac.uk/international/visa](http://www.ncl.ac.uk/international/visa)

## International Welcome

Our International Welcome programme helps you make friends with other new students, meet staff and settle in to the campus and city. We also help you with essential tasks, such as opening a bank account and registering with a doctor. [www.ncl.ac.uk/pre-arrival/welcome](http://www.ncl.ac.uk/pre-arrival/welcome)

## Airport collection

As part of our Welcome programme, staff and students will be at Newcastle International Airport to meet you from your flight on selected days in September and January. If you're staying in University accommodation, our free bus service will take you there.

## Our city

Newcastle is a safe, welcoming and student-friendly city. We're lucky to have a compact campus based right in the heart of the city centre. You can walk from our campus to Newcastle's main high street in around two minutes. See pages 20–25 to find out more about our city.

## English language support

If you are not a native speaker of English, or if you are a Tier 4 visa application student, you will need to show that you have an adequate level of English before you begin your studies.

We offer a range of modules to help you develop your academic communication skills. If you are not a native speaker of English, we ask you to take the University English Language Assessment (UELA) when you first arrive. This helps us identify which in-session modules are most relevant to you.

Our in-session modules are all free and consist of courses in academic reading, writing, listening and speaking and online materials to help develop your academic grammar and vocabulary.

We can help you arrange tandem learning where you meet an English-speaking student who wants to learn your language.

We have courses available on campus through INTO Newcastle University, to prepare you for university study (see opposite). We also offer a range of English language and academic preparation courses at our Newcastle University London campus. See page 217.



## English language and university preparation courses

We provide courses that prepare international students for university study through INTO Newcastle University. We can help you:

- ▶ study English in the UK, prior to making your application to a UK university
- ▶ study an academic course to prepare you to start a degree at Newcastle University
- ▶ improve your English language skills while studying at Newcastle University

Over the last 10 years we've helped over 10,500 students develop the high levels of academic knowledge and English language skills required for university.

## Our courses

English language courses	Overview	Start dates
Academic English	Improve your level of academic English or meet the language requirements for a degree at Newcastle University.	September, January, April, June
Pre-sessional English	If you already hold an offer to study at Newcastle University, this course provides intensive English language preparation to help you improve your English. A 6- or 10-week course over the summer.	June, July
Study Abroad with English	Experience life at a UK university and improve your English language skills. Gain extra credits for your home university or prepare for study in the UK.	September, January, April, July
University preparation courses	Overview	Start dates
International Foundation	Preparing you to progress to the first year of an undergraduate degree. Pathways available in: Architecture; Biological and Biomedical Sciences; Business and Management; Humanities and Social Sciences; Physical Sciences and Engineering	July, September, January
International Year One	Preparing you for direct entry to the second year of an undergraduate degree. Pathways available in: Architecture; Business	July, September, January
For more information, including how to apply, see <a href="http://www.newcastle.ac.uk/ipc/courses">www.newcastle.ac.uk/ipc/courses</a> For details of English language requirements for our undergraduate degrees see page 221 or check <a href="http://www.ncl.ac.uk/international/courses/language">www.ncl.ac.uk/international/courses/language</a>		

Based in the heart of campus, we offer state-of-the-art teaching and learning facilities and dedicated accommodation for up to 1,000 international students.

We provide university-standard learning spaces and use teaching methods including lectures, hands-on laboratory work, seminars, tutorials, supported self-study and e-learning.

All of our students are registered students of Newcastle University and can take full advantage of the fantastic facilities available on campus.



# PARTNERS Programme supported entry route

If you have the talent and ambition for university study, regardless of your background or personal circumstances, we welcome your application\*. We have a range of support services available to help you reach your full potential as part of our diverse student community.

## Is university for me?

We know that some students face extra challenges when applying to university. In some areas of the UK, not many people go to university and this can sometimes act as a barrier for young people who want to. Others may worry that they can't afford it. At Newcastle, where you are from doesn't limit where you can go. We offer a variety of programmes to ensure that everyone has access to the help and information they need to decide whether university is for them.

## Care leavers

We offer a wide range of support services to help care leavers make the transition to University study, including access to bursaries and a pre- and post-entry support programme.

WE'VE  
SUPPORTED  
4,000 STUDENTS  
TO STUDY WITH  
US THROUGH  
PARTNERS

## PARTNERS Programme – receive a lower offer

If you're less likely to go to university because of your family background, low income or school opportunities, our nationally recognised PARTNERS Programme can help. It is a supported entry route to help talented applicants overcome barriers to applying here. So far, we've supported over 4,000 students to study with us.

You'll complete a summer school at Newcastle University in the July of Year 13/second year of college, which includes introductory sessions in the subject area of the course you have applied to, and sessions to develop key transitional skills necessary for success at university.

A PARTNERS offer will be lower than the typical offer from us, usually up to two grades, and will include successful completion of the summer school.

You'll also get help with applying for and understanding student finance, the chance to meet other students on the scheme and to learn more about Newcastle and student life here. It's a great way to find out about university.

## Meet Charlie

- Biomedical Sciences BSc Honours
- Completed PARTNERS in 2014

### How did the PARTNERS Programme help you?

It took a huge amount of pressure off my shoulders. I was concerned I might not get the grades I needed to get into university so the lower grades offered through PARTNERS really helped me to relax. It turned out that I didn't need the lower grade offer – I got the grades I needed – but that may not have been the case if it wasn't for the offer in the first place, which put me at ease.

### What did you enjoy most about the Summer School?

I really enjoyed the opportunity to work in the University laboratories. It was a completely different experience to what I had at college. I gained valuable experience in basic lab techniques and the general layout of the University. I also had the chance to meet and talk to other students on the PARTNERS course, so there were a few familiar faces when the time came to start my degree.

### If you could give advice to a new PARTNERS student what would it be?

If you're thinking about it, go for it; it's an opportunity not to be missed. You'll get valuable experience and meet new people who may end up being your best friends. Giving yourself a chance to experience a small part of university life before being thrown in at the deep end is really valuable!

PARTNERS.  
[www.ncl.ac.uk/schools/partners](http://www.ncl.ac.uk/schools/partners)

Lower Offer

SUMMER  
SCHOOL

MENTOR  
SUPPORT



\*To apply through the PARTNERS Programme you must be a resident in England or Northern Ireland

# Student finance

Our 2018–19 tuition fees are published online at [www.ncl.ac.uk/undergraduate/finance](http://www.ncl.ac.uk/undergraduate/finance) and in the Fees and Funding tab of individual degree descriptions at [www.ncl.ac.uk/undergraduate/degrees](http://www.ncl.ac.uk/undergraduate/degrees). Fees for UK, EU and international students coming to Newcastle University in 2019 have not yet been confirmed at the time of going to print in January 2018. We will update our online information as soon as it becomes available.

## Scholarships

We invest millions of pounds in financial support for students who study with us. Our range of scholarships includes:

- ▶ targeted support for UK students from lower income families
- ▶ scholarships for international students
- ▶ sports scholarships (see page 34 for details)
- ▶ subject scholarships for UK/EU students
- ▶ International Family Discounts for international students with a close family member who has graduated from or is studying at Newcastle University

Find out more at [www.ncl.ac.uk/undergraduate/finance/scholarships](http://www.ncl.ac.uk/undergraduate/finance/scholarships)

## Additional costs

Some of our degrees involve extra costs that are not covered by your tuition fees such as extra equipment/materials for individual projects and field trips. For further information on additional costs, see our finance webpages [www.ncl.ac.uk/undergraduate/finance/tuition-fees](http://www.ncl.ac.uk/undergraduate/finance/tuition-fees)

## Fees and loans for UK students\*

- ▶ You don't have to pay any tuition fees upfront if you take out a tuition fee loan
- ▶ Eligible students are entitled to a loan to cover the full cost of tuition fees while at university and a living cost loan to help with costs such as food and accommodation
- ▶ You only start repaying your loans once you're employed and earning more than £25,000 a year
- ▶ All your student loans are added together and a single repayment will be deducted from your salary
- ▶ Your monthly loan repayments are based on how much you earn over £25,000, not what you owe\*\*

If you decide not to take out a tuition fee loan and choose to pay us direct for your studies, there are two payment options. Throughout each year of study you can pay the annual fee in full, or you can pay in three instalments.

\*Based on 2018–19. Funding loan information for UK students entering the University in 2019 has yet to be confirmed.

\*\*Students from Scotland and Northern Ireland should refer to their own student finance body.



# Working with schools and colleges

Our extensive work with schools and colleges nationally aims to provide students with high-quality information, advice and events so they can make informed decisions about university. We're also committed to an active programme of raising aspirations and widening participation.

## Activities for schools and colleges

We work intensively with teachers, schools, colleges and young people to provide an extensive programme of subject-specific activities. Whether on-campus or in-school, all the activities are run by our own students and graduates, who offer a fresh, realistic and unique insight into university life. These activities can support schools and colleges with key skills development and curriculum delivery. See [www.ncl.ac.uk/schools](http://www.ncl.ac.uk/schools)

Our staff and students visit higher education fairs and schools across the UK to provide face-to-face information about studying at Newcastle and the degrees we offer. See [www.ncl.ac.uk/undergraduate/visit/he-fairs](http://www.ncl.ac.uk/undergraduate/visit/he-fairs)

We encourage schools and colleges to bring groups of students to our University Open Days. Our Friday event includes a session for teachers and advisers. Funds may be available to support the costs associated with bringing students from your school or college to events on campus. See [www.ncl.ac.uk/openday](http://www.ncl.ac.uk/openday)

## Access schemes

### PARTNERS Programme supported entry route:

our nationally recognised access scheme supports eligible students who have the potential to succeed at Newcastle University. See pages 224–225 for more information.

**Realising Opportunities:** we lead this award-winning national scheme, which aims to encourage talented students from across the UK to apply to research-intensive universities including Newcastle. Fourteen research-intensive universities are involved in the scheme, which builds upon their collective experience of widening participation.

**North East Raising Aspirations Partnership (NERAP):** led by Newcastle University, this is a collaboration between the five universities in the region, and offers

a programme of activities for primary and secondary pupils, teachers and advisers, parents and carers, looked-after young people and young carers.

NERAP runs in-school and on-campus events to promote higher education in the region, as well as advancing the professional development of those involved in guiding young people to higher education. The Partnership acts as the single point of contact in the region for widening participation outreach activity.

## Teachers' Toolkit

Our Teachers' Toolkit is an online directory that brings together all of our events, activities and resources for schools and colleges in one place. The searchable database contains over 400 free resources to support teachers, enhance lessons and inspire students. The directory is quick and easy to use and gives you access to materials such as:

- ▶ tastier events designed to inform and inspire young people about higher education
- ▶ workshops, talks and activities in-school and on-campus about university, university subjects and the key study skills needed
- ▶ research-informed teaching resources
- ▶ access to unique and curriculum relevant collections and facilities in our Library and the Great North Museum: Hancock
- ▶ Continuing Professional Development and conferences for teachers and advisers

To find out what's currently available on Teachers' Toolkit, visit [www.ncl.ac.uk/teacherstoolkit](http://www.ncl.ac.uk/teacherstoolkit)

## Support for teachers

We offer free Continuing Professional Development sessions for teachers and headteachers, providing information that will help you support staff and students, and introduce you to University senior managers and students to discuss current issues relating to student transition to university.



# Degree index

See page 41 for the list of subject areas that you can study.

## A

Accounting and Finance BA	43
Accounting and Finance BSc (London campus)	215
Accounting and Finance with Foundation Year BSc (London campus)	216
Accounting and Finance with Placement BA	43
Accounting and Finance with Placement BSc (London campus)	215
Agri-Business Management BSc	46
Agriculture BSc	50
Agriculture with Agronomy BSc	50
Agriculture with Animal Production Science BSc	50
Agriculture with Farm Business Management BSc	51
Ancient History BA	88
Ancient History and Archaeology BA	56
Animal Science BSc	53
Applied Plant Science BSc	51
Archaeology BA	55
Architecture BA	58
Architecture and Urban Planning BA	59
Automation and Control BEng	115
Automation and Control with Industrial Project MEng	115

## B

Biochemistry BSc	66
Biochemistry Integrated Master's MSci	66
Biology BSc	61
Biology MBiol	61
Biology (Cellular and Molecular Biology) BSc	62
Biology (Cellular and Molecular Biology) MBiol	62
Biology (Ecology and Conservation) BSc	63
Biology (Ecology and Conservation) MBiol	63
Biomedical Genetics BSc	67
Biomedical Genetics Integrated Master's MSci	67
Biomedical Sciences BSc	67
Biomedical Sciences Integrated Master's MSci	67
Business Accounting and Finance BA	44
Business Management BA	71

## C

Chemical Engineering BEng	76
Chemical Engineering MEng	76
Chemical Engineering with Bioprocess Engineering MEng	76
Chemical Engineering with Foundation Year BEng	119
Chemical Engineering with Foundation Year MEng	119
Chemical Engineering with Industry MEng	76
Chemical Engineering with Process Control MEng	77
Chemical Engineering with Sustainable Engineering MEng	77
Chemistry BSc	81
Chemistry MChem	81
Chemistry with Industrial Training Year BSc	81

Chemistry with Industrial Training Year MChem	81
Chemistry with Medicinal Chemistry BSc	81
Chemistry with Medicinal Chemistry MChem	81
Chemistry with Medicinal Chemistry with Industrial Training Year BSc	81
Chemistry with Medicinal Chemistry with Industrial Training Year MChem	81
Chemistry with Medicinal Chemistry with Study Abroad MChem	81
Chemistry with Study Abroad MChem	81
Chinese Studies BA	176
Civil and Structural Engineering BEng	86
Civil and Structural Engineering MEng	86
Civil and Structural Engineering with Year in Industry BEng	86
Civil and Structural Engineering with Year in Industry MEng	86
Civil and Surveying Engineering BEng	86
Civil and Surveying Engineering MEng	86
Civil and Surveying Engineering with Year in Industry BEng	86
Civil and Surveying Engineering with Year in Industry MEng	86
Civil Engineering BEng	85
Civil Engineering MEng	85
Civil Engineering with Foundation Year BEng	119
Civil Engineering with Foundation Year MEng	119
Civil Engineering with Year in Industry BEng	85
Civil Engineering with Year in Industry MEng	85
Classical Studies BA	88
Classical Studies and English BA	89
Classics BA	89
Combined Honours BA	92
Computer Science BSc	96
Computer Science MComp	96
Computer Science (Bio-Computing) BSc	97
Computer Science (Bio-Computing) MComp	97
Computer Science (Bio-Computing) with Industrial Placement BSc	97
Computer Science (Bio-Computing) with Industrial Placement MComp	97
Computer Science (Game Engineering) BSc	97
Computer Science (Game Engineering) MComp	97
Computer Science (Game Engineering) with Industrial Placement BSc	97
Computer Science (Game Engineering) with Industrial Placement MComp	97
Computer Science (Human-Computer Interaction) BSc	98
Computer Science (Human-Computer Interaction) with Industrial Placement BSc	98
Computer Science (Mobile and Distributed Systems) BSc	98
Computer Science (Mobile and Distributed Systems) MComp	98
Computer Science (Mobile and Distributed Systems) with Industrial Placement BSc	98

Computer Science (Mobile and Distributed Systems) with Industrial Placement MComp	98
Computer Science (Security and Resilience) BSc	99
Computer Science (Security and Resilience) MComp	99
Computer Science (Security and Resilience) with Industrial Placement BSc	99
Computer Science (Security and Resilience) with Industrial Placement MComp	99
Computer Science (Software Engineering) BSc	99
Computer Science (Software Engineering) with Industrial Placement BSc	99
Computer Science with Industrial Placement BSc	96
Computer Science with Industrial Placement MComp	96
Computer Science with Study Abroad MComp	96
Contemporary and Popular Music BA	179
Countryside Management BSc	127

## D

Dental Surgery BDS	103
Digital Electronics BEng	116
Digital Electronics with Industrial Project MEng	116

## E

Earth Science BSc	106
Earth Science MEarthSci	106
Earth Science with Year in Industry BSc	106
Earth Science with Year in Industry MEarthSci	106
Economics BSc	108
Economics and Business Management BA	109
Economics and Finance BSc	110
Education BA	112
Electrical and Electronic Engineering BEng	116
Electrical and Electronic Engineering with Foundation Year BEng	119
Electrical and Electronic Engineering with Foundation Year MEng	119
Electrical and Electronic Engineering with Industrial Project MEng	116
Electrical Power Engineering BEng	117
Electrical Power Engineering with Industrial Project MEng	117
Electronic Communications BEng	117
Electronic Communications with Industrial Project MEng	117
Electronics and Computer Engineering BEng	118
Electronics and Computer Engineering with Industrial Project MEng	118
Engineering with Foundation Year BEng	119
Engineering with Foundation Year MEng	119
English Language BA	122
English Language and Literature BA	122
English Literature BA	123
English Literature and History BA	123
English Literature with Creative Writing BA	124
Environmental Science BSc	128
Environmental Science with Placement BSc	128
Environmental Sciences (Agricultural and Environmental Science) MEnvSci	129

Environmental Sciences (Agricultural and Environmental Science) with Placement MEnvSci	129
Environmental Sciences (Clean Technology) MEnvSci	129
Environmental Sciences (Clean Technology) with Placement MEnvSci	129
Environmental Sciences (Ecosystem Management) MEnvSci	129
Environmental Sciences (Ecosystem Management) with Placement MEnvSci	129
Environmental Sciences (Environmental Geochemistry) MEnvSci	129
Environmental Sciences (Environmental Geochemistry) with Placement MEnvSci	129

## F

Film and Media BA	164
Film Practices BA	165
Fine Art BA	132
Folk and Traditional Music BA	179
Food and Human Nutrition BSc	183
Food and Human Nutrition with Placement BSc	183
Food Business Management and Marketing BSc	47

## G

Geographic Information Science BSc	137
Geographic Information Science with Year in Industry BSc	137
Geography BA	135
Geography BSc	135
Geography and Planning BA	137
Government and European Union Studies BA	194

## H

History BA	140
History and Archaeology BA	56

## I

International Business Management BSc	72
International Business Management BSc (London campus)	215
International Business Management with Foundation Year BSc (London campus)	216
International Business Management with Placement BSc	72
International Business Management with Placement BSc (London campus)	215
International Marketing and Management BSc (London campus)	216
International Marketing and Management with Foundation Year BSc (London campus)	216
International Marketing and Management with Placement BSc (London campus)	216

## J

Japanese Studies BA	176
Journalism, Media and Culture BA	166

<b>L</b>	
Latin American Studies, see Spanish, Portuguese and Latin American Studies BA.....	176
Law LLB.....	142
Linguistics BA.....	124
Linguistics with Chinese or Japanese BA.....	125
Linguistics with French BA.....	125
Linguistics with German BA.....	125
Linguistics with Spanish BA.....	125
<b>M</b>	
Mapping and Geospatial Data Science MSci.....	209
Mapping and Geospatial Data Science with Year in Industry MSci.....	209
Marine Biology BSc.....	144
Marine Biology and Oceanography BSc.....	145
Marine Technology with Foundation Year BEng.....	119
Marine Technology with Foundation Year MEng.....	119
Marine Technology with Marine Engineering BEng.....	148
Marine Technology with Marine Engineering MEng.....	148
Marine Technology with Naval Architecture BEng.....	148
Marine Technology with Naval Architecture MEng.....	148
Marine Technology with Offshore Engineering BEng.....	149
Marine Technology with Offshore Engineering MEng.....	149
Marine Technology with Small Craft Technology BEng.....	149
Marine Technology with Small Craft Technology MEng.....	149
Marine Zoology BSc.....	145
Marketing BSc.....	151
Marketing and Management BSc.....	152
Mathematical Sciences with Foundation Year BSc.....	157
Mathematics BSc.....	155
Mathematics MMath.....	155
Mathematics and Accounting BSc.....	156
Mathematics and Economics BSc.....	156
Mathematics and Statistics BSc.....	155
Mathematics and Statistics MMathStat.....	155
Mathematics with Finance BSc.....	157
Mathematics with Management BSc.....	157
Mechanical Design and Manufacturing Engineering MEng.....	161
Mechanical Engineering BEng.....	161
Mechanical Engineering MEng.....	161
Mechanical Engineering with Biomedical Engineering MEng.....	161
Mechanical Engineering with Energy MEng.....	162
Mechanical Engineering with Foundation Year BEng.....	119
Mechanical Engineering with Foundation Year MEng.....	119
Mechanical Engineering with Mechatronics MEng.....	162
Media, Communication and Cultural Studies BA.....	166
Medical Science (Deferred Choice) BSc.....	68
Medicine and Surgery MB BS.....	170
Medicine and Surgery (Accelerated Programme) MB BS.....	171
Microelectronic Engineering BEng.....	118
Microelectronic Engineering with Industrial Project MEng.....	118
Modern Languages BA.....	174
Modern Languages and Business Studies BA.....	175
Modern Languages and Linguistics BA.....	175
Modern Languages, Translation and Interpreting BA.....	176
Music BA.....	180
Music BMus.....	180
<b>N</b>	
Nutrition with Food Marketing BSc.....	183
Nutrition with Food Marketing with Placement BSc.....	183
<b>O</b>	
Oral and Dental Health Sciences BSc.....	104
<b>P</b>	
Pharmacology BSc.....	68
Pharmacy MPharm.....	186
Philosophy BA.....	188
Physical Geography BSc.....	136
Physics BSc.....	190
Physics MPhys.....	190
Physics with Foundation Year BSc.....	191
Physics with Foundation Year MPhys.....	191
Physiological Sciences BSc.....	68
Planning (Master of) MPlan.....	212
Politics BA.....	193
Politics and Economics BA.....	194
Politics and History BA.....	140
Politics and Sociology BA.....	202
Portuguese Studies, see Spanish, Portuguese and Latin American Studies BA.....	176
Psychology BSc.....	197
Psychology and Biology BSc.....	198
Psychology and Mathematics BSc.....	198
Psychology and Nutrition BSc.....	199
Psychology and Sport and Exercise Science BSc.....	199
<b>R</b>	
Rural Studies BSc.....	128
<b>S</b>	
Sociology BA.....	201
Spanish, Portuguese and Latin American Studies BA.....	176
Speech and Language Sciences (Master of) MSc.....	204
Speech and Language Therapy BSc.....	204
Sport and Exercise Science BSc.....	206
Statistics BSc.....	155
Surveying and Mapping Science BSc.....	208
Surveying and Mapping Science with Year in Industry BSc.....	208
Sustainable Transport Engineering MEng.....	162
<b>T</b>	
Theoretical Physics BSc.....	191
Theoretical Physics MPhys.....	191
<b>U</b>	
Urban Planning BA.....	212
<b>Z</b>	
Zoology BSc.....	63
Zoology MBiol.....	63

# Disclaimers and acknowledgements

## Disclaimer

Although great care is taken in compiling this *Undergraduate Prospectus*, it is for the general guidance of prospective students only. This publication is intended for those who are interested in applying for admission to the University in 2019 and is intended as advance publicity for information and guidance purposes only. Details included are correct at the time of going to press in January 2018. The most up-to-date and detailed source of information at any time is the undergraduate website at [www.ncl.ac.uk/undergraduate](http://www.ncl.ac.uk/undergraduate)

The matters covered by this publication are subject to change from time to time, both before and after a candidate's admission. Unavoidable changes may on occasion have to be made, affecting the availability of degree programmes, subjects, modules and options within degree programmes, and of additional opportunities such as placements, field trips and exchange visits. Reasons for change could include timetabling issues, changes in staff, requirements of programme-accrediting bodies, to reflect academic changes within subject areas, or due to minimum student numbers on a course.

Full details of the University's terms and conditions, including reference to all relevant policies, procedures, regulations and information provision are available at [www.ncl.ac.uk/pre-arrival/regulations](http://www.ncl.ac.uk/pre-arrival/regulations)

The University is not responsible for the content of any websites which do not form part of the Newcastle University domain ([www.ncl.ac.uk](http://www.ncl.ac.uk)) and whose addresses are given in this publication.

## Equal opportunities

The University's Equality Strategy is our public declaration of our commitment to develop a fully inclusive University community, which recruits and retains talented staff and students from all sectors of society equally. [www.ncl.ac.uk/diversity](http://www.ncl.ac.uk/diversity)

## Alternative formats

We can provide information on any of our courses, and on student life in Newcastle, in alternative formats. Please contact Student Services (see back cover) for more information. The University is committed to making our website, and the material provided on it, as accessible as possible. [www.ncl.ac.uk/info/accessibility](http://www.ncl.ac.uk/info/accessibility)

## Acknowledgements

**Edited by:** Marketing Unit.

**Designed by:** The Roundhouse Design Consultants, Newcastle upon Tyne.

**Printed by:** Sterling.

**Typeset in:** Bariol, Din and Helvetica.

**Photography by:** P Appleby; Michael Baister Photography; C Bishop; J Cheng; J Donoghue; P Jones; MH Kamaruzzaman; P Haswell; High Level Photography and Filming; NewcastleGateshead Initiative; G Peacock; L Scott-Robinson; J Shard; P Roughley; S Veit-Wilson; A Wallace; T Yong.

Thank you to all the staff and students around the University who have provided photographs or taken part in photoshoots for this Prospectus.

This Prospectus is printed on Revive 100 Silk, a recycled paper manufactured from 100% recycled post-consumer waste and manufactured at a mill certified with ISO 14001 environmental management standard. The paper content has been carbon balanced, as facilitated by the conservation charity, the World Land Trust, thereby supporting the preservation of critically endangered rainforests and species.

© Newcastle University, 2018.

The University of Newcastle upon Tyne trading as Newcastle University.

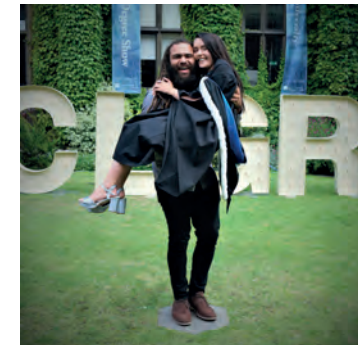


# Join the conversation

Don't just take our word for how fantastic Newcastle University is... here's what life at Newcastle looks like to our students. We'd like to thank our current students for supplying the content used on these pages.

Follow us for photos, videos, blogs, tips, webinars and more:

[f/newcastleuniversity](#)
[@StudentsNCL](#)
[@newcastleuni](#)
[NewcastleUniOfficial](#)  
[newcastleuni](#)
[search 'Newcastle University'](#)
[weibo.com/UKNCL](#)
[search 'NCL-UK'](#)



BOOK ONTO  
AN **OPEN DAY:**

29 JUNE

30 JUNE

15 SEPT 2018

[www.ncl.ac.uk/openday](http://www.ncl.ac.uk/openday)



**Newcastle**  
**University**

UK | Malaysia | Singapore

## Student Services

Newcastle University, King's Gate  
Newcastle upon Tyne NE1 7RU  
United Kingdom

## Further information

0191 208 3333 (+44 191 208 3333)

[www.ncl.ac.uk/enquiries](http://www.ncl.ac.uk/enquiries)

Details included are correct at the  
time of going to press in January 2018.

For the most up-to-date and detailed  
information, visit: [www.ncl.ac.uk](http://www.ncl.ac.uk)

WORLD  
LAND TRUST

FSC 100%  
RECYCLED  
LOGO