

Undergraduate Prospectus 2017^{Entry}



Contents

Welcome to Newcastle

Graduates in Demand	04
Join the Conversation	06

Discover Newcastle

About the City	08
----------------	----

Campus Life

Our Campus	14
Students' Union	16
Arts and Culture	18
Sport at Newcastle	20
Accommodation	22
Our London and International Campuses	24

Studying Here

Research	26
Teaching and Learning	28
Facilities and Resources	30
Study Abroad	32
Support	34
International Students	38
INTO Newcastle University	39

Your Career

Careers Support	40
Alumni	45

Financing Your Studies

Fees and Funding	46
------------------	----

Our Degrees

University Preparation Courses	49
A-Z of Subjects	54

Essential Information

How to Apply	220
Working with Schools and Colleges	223
Maps and Travel	224
Degrees (A-Z) Index	226
Degrees (by Subject) Index	232
General Index	237
Disclaimers	239
Visit Us	240



Top 1%
of world
universities*

Welcome to Newcastle

Newcastle University is a world-class civic university with a proud tradition committed to academic excellence – but excellence with a purpose.

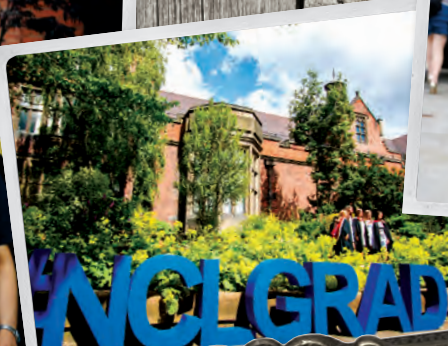
The reputation, popularity and success of the University are backed up by the high-quality learning and teaching experience that we provide to our students. We are consistently ranked in the top 20 in the UK for student experience and research, and our commitment to 'education for life' is supported by our strong graduate employability record.

We are proud of what we have to offer as a university and we want students with ability and potential from all backgrounds to join us.

I look forward to welcoming you here.



Professor Chris Brink, Vice-Chancellor



ENGL GRAD



Graduates in Demand

Newcastle provides you with the opportunities to gain the professional, personal and entrepreneurial skills needed to succeed, whatever you choose to do after you graduate. Our placement and study abroad opportunities, along with our award-winning careers support are designed to give you the confidence and intercultural skills needed to pursue your passions, wherever in the world they take you.

We're consistently one of the top 20 UK universities targeted by *The Times* Top 100 employers, like PwC and Jaguar Landrover*. Not only that, our employment rates are higher than the national average, meaning you're more likely to get a job if you study with us**.

*The Graduate Market in 2015, High Fliers Research

**Destinations of Leavers from Higher Education 2013/14



WATCH

Use Layar to watch graduate Jack Fisher's timelapse tribute to the 'Toon'



- Download the free app (Apple/Android)
- Scan the page
- Enjoy the video

Join the Conversation

Ever wondered what it's like to be a student at Newcastle? Are you thinking of applying and wish you could meet current students to get some advice?

Visit www.ncl.ac.uk/oncoursetoncl

- Follow our student bloggers
- Read top tips
- Ask questions
- Watch live webchats

With videos and articles written by experts and current students, On Course to NCL covers all aspects of the application process from choosing the right A levels through to submitting your UCAS form and beyond.

Get social

Follow us on social media for photos, videos and updates

 [/oncoursetoncl](https://www.facebook.com/oncoursetoncl)

 [/studentsNCL](https://twitter.com/studentsNCL)

 [/newcastleuni](https://www.instagram.com/newcastleuni)

 [/newcastleuniofficial](https://www.youtube.com/newcastleuniofficial)

 [newcastleuni](https://www.snapchat.com/newcastleuni)

 search 'Newcastle University'

07

Join the Conversation

06



ON COURSE TO

NCL

www.ncl.ac.uk/oncoursetoncl



UK's
favourite
city[†]

08

Discover Newcastle

Newcastle is the cosmopolitan capital of North East England. Fun, friendly and effortlessly cool, it has gained an enviable reputation as one of the UK's favourite student cities. We boast world-class arts, music, shopping and sport right in the city centre. And we're just 25 minutes from beautiful beaches and stunning countryside.

One of the UK's favourite student cities

One in six people in Newcastle is a student, so you'll be in good company! This helps create the city's energetic social scene and legendary nightlife, as well as meaning there's plenty of student-friendly deals to help you make the most of your time here.

Affordable and fun

Student rents and cost of living in Newcastle are amongst the lowest in the UK, so you'll have more money left in your pocket to spend on the things you love. There's no shortage of things to do – from cinema to surfing! No wonder we're in the UK top 10 for quality of student life*.

Famously friendly

There's a reason Newcastle has a reputation as one of the friendliest cities in the UK – it is! The city is welcoming, multicultural and safe – you can't help but feel at home here. If the city's unique culture and infectious accent win you over, you won't be alone. Over 40 per cent of our recent graduates have decided to stay in the North East**.

Just the right size

Newcastle is a big city in a small space. We're big enough that there's always something to do, but small enough that you're never far from the action. Most places within the city are just a short walk from our city-centre campus. Or you can hop on the Metro, which has stops throughout the city. It even goes to the coast if you fancy a change of scene!

Pretty city

Think it's grim up North? Think again. Our elegant Georgian city centre surprises and delights with its classically inspired architecture. On the Quayside, seven iconic bridges and stunning international arts venues complement the beauty of the River Tyne. In the city centre, two large parks provide plenty of green spaces for relaxation and sports.

Newcastle is famous for its nightlife, and, with a relatively low cost of living and a compact city centre, going for a trawl around its varied pubs and clubs couldn't be easier. But it's also a regional centre for the arts, theatre and live music. It's close to great countryside and the dramatic coastline.

The Guardian University Guide 2016



Watch our city video
www.ncl.ac.uk/video



Tour the city online
www.ncl.ac.uk/tour/city



Find out more
www.ncl.ac.uk/visit

*Lloyds Bank Student Life Survey 2015. **Destinations of Leavers from Higher Education survey 2013–14

09

About the City

Closer than you think

We're just three hours away from London by train and the city is well connected to the rest of the UK. We have city-centre coach and train stations, an international airport and a ferry terminal nearby. This means it is easy to get home for the holidays, or to use the city as a base to explore further afield. There are long-haul flights to New York and Dubai, and budget airlines fly within the UK and Europe, making city breaks temptingly close.



Nightlife

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 clubs and bars. Evening entertainment options also include comedy clubs, boutique bowling, curry-oke, film screenings, late night cafés, poetry readings and more.



Shopping

Newcastle is a shopper's paradise. Explore the city centre and you'll find big brands on Northumberland Street, chic boutiques in the High Bridge Quarter, designer names around the Monument, and bargains galore at Grainger Market. There are also plenty of shops at Eldon Square, which is one of the UK's largest city-centre malls with 150 outlets (below). If that's not enough, Metrocentre, Europe's largest shopping and leisure centre, is also just 15 minutes away by bus.

Sport

Sport is integral to Newcastle's identity and you can see a range of great sport right in the city centre, including Newcastle United Football Club (right) and top-flight basketball. International athletics and rugby union action are just a Metro ride away. Not forgetting the world's biggest half marathon, the Great North Run (above), which welcomes over 50,000 runners to the city each year.





Cinema

Grab your popcorn and 3D specs because Newcastle loves the movies. Screens in the city centre show everything from Hollywood blockbusters to international arthouse, and there's an IMAX at the nearby Metrocentre. The Tyneside Cinema (above) is a characterful art deco cinema showing cult classics and world films, much loved by movie buffs.



Coast and Countryside

Don't let our city-centre attractions stop you exploring further afield. Unspoilt beaches and wild and wonderful countryside are on your doorstep. Just 25 minutes away by Metro, the coastal towns of Whitley Bay and Tynemouth are easily accessible, providing seaside delights including unspoilt golden beaches, surf lessons and fish and chips. The World Heritage Sites of Hadrian's Wall and Durham Castle and Cathedral are also just a short journey away.

Arts and Culture

There are lots of opportunities to indulge your intellectual side in the city. We have many theatres, including the Theatre Royal (above), which hosts productions from the Royal Shakespeare Company and National Theatre, and the contemporary Northern Stage on campus. The city's art galleries and museums range from ancient history to modern art, including the impressive BALTIC, a converted flour mill on the banks of the Tyne (below).



Comedy

Laid-back Geordies love to laugh and the city has a growing reputation for live comedy. Top names on the international circuit like Michael Macintyre and John Bishop fill major venues across the city. The Stand comedy club welcomes established names and up-and-coming acts, and is a regular stop-off for comedians *en route* to the Edinburgh Festival. Newcastle's improv group, The Suggestibles, are not to be missed.



Music

From international pop and rock acts like One Direction and 50 Cent performing at the Metro Radio Arena and O2 Academy, to folk and classical concerts at the gorgeous Sage Gateshead, our range of venues caters for all tastes. Make sure you check out The Cluny and The Cumberland Arms for smaller gigs. Perfect for catching new bands that aren't quite ready to pack out the Arena... yet!



Food and Drink

We hope you've brought your appetite because Newcastle is a foodie's delight. From the usual big name chains to homegrown independent cafés and delis, there's plenty to suit all palates. Top chefs Jamie Oliver and Marco Pierre White have venues in town and there are culinary events throughout the year, like the EAT! Festival and continental food markets. Our very own Chinatown has plenty of places to enjoy Asian cuisine, and there's a wide range of restaurants offering global flavours.

Campus Life

Our city-centre campus is beautiful, bustling and built around you. It has everything you need to excel in your studies, make friends and settle into student life.

Great location

Our campus is right in the city centre, so you get the benefits of campus life without compromising on location. The majority of our teaching, support and student services are located on campus, so everything you need is available in one place.

Cosmopolitan campus

We welcome students from around the world and there is a real sense of community on our cosmopolitan campus. Most people you meet on campus are fellow students and University staff, so you'll be immersed in university life from day one.

Evolving architecture

On our beautiful campus, red-brick buildings sit comfortably alongside contemporary new builds, and there are plenty of green spaces to relax and reflect. Our campus is built around you and, thanks to multimillion-pound investments, is always evolving to give you a great experience.

Fantastic facilities

Our campus is home to a wide range of facilities to support your studies (see page 30) but we also have some off-campus too. These provide access to specialist facilities you can't get in the city centre, like our marine lab on the coast, and two working farms.

Work, rest and play


At the heart of campus, the Students' Union is the hub of student social life. You can join societies, try new sports, act, write, DJ, volunteer... but don't forget to go to lectures too! There are also plenty of computer clusters, study spaces and places to grab a bite to eat.

Visit us

To really explore the campus why not pay us a visit – we'd love to see you!

- Book onto our next Undergraduate Open Day www.ncl.ac.uk/openday
- Book a student-led campus tour www.ncl.ac.uk/visit

 Explore our campus and buildings online with Google Maps

 Find out more
www.ncl.ac.uk/tour
www.ncl.ac.uk/video



Students relaxing outside the Students' Union Building



*Times Higher Education Student Experience Survey 2015

Students' Union

From Freshers' Week to your graduation, from a morning coffee to the Nightbus home, Newcastle University Students' Union (NUSU) caters for all of your needs.

NUSU provides opportunities, activities and services that centre around you; designed to make sure you get the most out of university life.

It is run by students, for students, with six elected Sabbatical Officers representing your interests. The hub of social life on campus, NUSU offers over 200 clubs and 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 social life and is right at the heart of campus.

So whether you want to try a new sport, join a society, volunteer, go to a gig or just grab a sandwich and relax on the lawn the Students' Union has it all.



Tour our Students' Union online
nusu.co.uk/tour



Find out more
www.nusu.co.uk

We offer

- Multi-Guardian-award-winning student newspaper (*The Courier*)
- Freshers' Week events and activities
- Over 200 clubs and societies to join
- Volunteering opportunities and Raising and Giving (RAG) Week
- 'Give it a Go' and 'Go Play' sports taster programmes
- Hall Sports and Inclusive Sport
- Subway and Domino's on site
- Student bar 'Mens Bar' providing food, drinks and pool table
- SU Shop
- 1,500-capacity gig space
- Weekly club nights in Venue
- Open mic nights
- Student Advice Centre and confidential helpline (Nightline)
- Nightbus to take you home
- Quiet and social study spaces
- Computer clusters



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 campus here at Newcastle University.

Galleries and museums

On campus you'll find the Hatton, a free art gallery that hosts a busy programme of historical and contemporary art exhibitions, as well as the Great North Museum, which is one of the region's most popular attractions. The museum houses an impressive collection of 3,500 natural history, archaeological and ethnological artefacts, and highlights include a replica T-Rex skeleton, mummies and a planetarium. www.twmuseums.org.uk

Lectures and literature

Our free public lecture series, Insights, welcomes internationally respected speakers to campus each term, such as Laura Bates (founder of the Everyday Sexism Project) and Patrick Cockburn (Middle East correspondent, *The Independent*). www.ncl.ac.uk/events/public-lectures

Campus-based Newcastle Centre for the Literary Arts runs a year-round programme of readings and events, featuring world-class writers such as Carol Ann Duffy, Ali Smith and Andrea Levy. www.ncl.ac.uk/ncla

Events

Each year we host a range of different public events and festivals. ¡VAMOS! is a regular fixture, a two-week festival of events celebrating Latin culture, including dance, film, cuisine and more. If food is your thing, don't miss the regular international and local food markets in the Student Forum.

Music

Whether you want to perform music or hear it played, our University offers a wide range of music. Our free lunchtime concert series, LIVE Music, offers professional recitals, and weekly student performances showcase students' performance activities. www.ncl.ac.uk/events/kings-hall

The Students' Union hosts gigs from top UK touring acts plus weekly open mic nights. Join (or start) a student music ensemble, such as our jazz orchestra or student choir. You can also meet like-minded students who share your musical tastes through groups like the rock or DJ societies.

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 is loved by students and the wider community for its range of classic and cutting-edge performances. www.northernstage.co.uk

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 during the year.

Cultural reputation

We're an integral part of Newcastle's lively cultural scene – in 2014–15, almost one million visitors came to our museums, galleries, public lectures and concerts.



Sport at Newcastle

Newcastle is a university where academic achievement, student life and sport go hand in hand. Everyone has the opportunity to enjoy sport here, whatever their level, from taster sessions and exercise classes, to team sports and professional coaching. We're consistently in the top 15 of the BUCS league and are investing in a sports facilities expansion programme. We also offer a comprehensive package of support to students with an outstanding sporting pedigree.

Facilities

The University Sports Centre has a wide range of facilities for sport and physical recreation. It's open from 7am to 10pm* during term time, so you'll have plenty of time to make the most of our facilities even if your academic timetable or social calendar keeps you busy.

Facilities include:

- 125-station fitness suite and dance studio
- Strength and Conditioning facilities
- Sports hall, squash courts and outdoor pitches
- Water Sports Centre on the River Tyne

Sport for all

We encourage students of all abilities to get involved in sport on campus. We have an extensive programme of recreational sport – including football, netball, hockey and more – enabling you to play sport in a friendly competitive arena.

We offer a varied and vibrant range of exercise classes and a 'Go Play' taster programme, which provides a range of sports for you to try throughout the year.

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.

www.ncl.ac.uk/sport/campus
www.nusu.co.uk/inclusive

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 the University in the British University and Colleges Sports leagues (BUCS), competing against other university teams throughout the UK.

We have over 60 clubs, from traditional sports like football and hockey, to more unusual sports like aikido, parachuting, surfing and snowboarding. Many clubs are supported by professional coaches. See full details at www.ncl.ac.uk/sport/performance

Scholarships and support

If you're a talented sportsperson and would like support to help you achieve your full sporting potential whilst you're at university, we can help.

Our sports scholarships and specialist support package are designed to help promising students achieve great things in the national sporting arena. Support comprises financial support, professional coaching, sports science support and a sports tutor to help you achieve your full potential.

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 programme. Full details at www.ncl.ac.uk/sport/performance/scholarships

*Term time only. 7am to 10pm weekdays. 9am to 9pm weekends.



Accommodation

University accommodation is the perfect environment to settle into university life and make friends as soon as you arrive. Our residences are close to campus and the city so you're never far from the action. And the good news is you're guaranteed a room in your first year*.


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.

 Tour our accommodation online
www.ncl.ac.uk/accommodation/about/virtualtours

 Find out more
www.ncl.ac.uk/accommodation

Types of accommodation

We have 4,000 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

What it costs

Costs vary depending on what type of accommodation you choose. In 2016, our accommodation cost from £81.27 per week for a self-catered room with shared bathroom, to £155.96 for a catered room with *en suite* facilities. Prices include insurance, internet and utility bills, and you can spread the cost across the year. Prices for 2017 entry will be available on our website from March 2016.

Visit our accommodation

If you'd like to visit our accommodation, you can tour a number of sites on our annual Open Days (see page 240).

*Correct at the time of going to print (January 2016)

Guaranteed
University
accommodation*



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 2017. 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 pages for our accommodation.

*Accommodation guarantee

We guarantee a room to all first-year undergraduates joining us in 2017, 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 2017
- apply online for accommodation by 30 June 2017

 www.ncl.ac.uk/accommodation/students/guarantee

Our London and International Campuses

Newcastle University is an internationally recognised university with global geographic reach. We have campuses in Newcastle, London, Singapore and Malaysia. Our international outlook, combined with our global reputation for academic excellence, means we're a first-choice destination for students from around the world.

24



Newcastle University Medicine Malaysia (NUMed)

We have a medical school in Malaysia, offering high-quality medical and biomedical degrees from our high-spec, purpose-built facilities in EduCity, Johor. Students studying our degrees in Malaysia can expect the same quality education, teaching and learning facilities as they'd experience at Newcastle, without the additional costs associated with studying abroad.

www.ncl.ac.uk/numed

Our Global Connections

Our global reach extends beyond our campuses and across the world, through our partnerships with 300+ prestigious international institutions. We have partners across Europe, the Americas and Asia, providing you with opportunities such as study abroad and international research.

American students can study in Newcastle through our science-focused study abroad centre, in partnership with Loyola University, USA.

25

Our Campuses



Newcastle University London

Newcastle University London is a partnership between Newcastle University and INTO University Partnerships – our global education partner.

Our London campus offers quality-assured undergraduate business degrees and postgraduate programmes from Newcastle University, and a range of university preparation courses for international students.

Our London students are based in a purpose-built building in the heart of the financial district on Middlesex Street, near Liverpool Street Station.

Our degrees draw on the strengths of our triple-accredited Business School. The London campus has established links with top companies including HSBC and Capita, providing opportunities for students to experience work placements, masterclasses, and internships. www.ncl.ac.uk/london

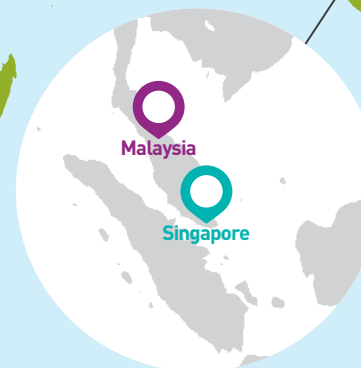
- Undergraduate degrees – pages 54–217
- University preparation courses – pages 49–53



Newcastle University International Singapore (NUIS)

We deliver top-quality degrees in Singapore, through our long-established partnership with the Singapore Institute of Technology (SIT). Subject areas include: Chemical and Electrical Engineering, Marine and Offshore Engineering, Naval Architecture, and Mechanical Design and Manufacturing Engineering.

www.ncl.ac.uk/singapore



Student Profile

Charlotte's research experience

I've had lots of opportunities to get involved in research at Newcastle. For me, research has been the most rewarding part of my degree – you feel a real sense of achievement when you've come up with an idea, gone away and worked on it, and proven it right... or wrong!

In my third year, I spent a year working in research on my industrial placement year, getting to grips with complex practical chemistry. I also spent a summer conducting research in the University labs, working as part of an academic's research group. You get plenty of support in your early years to prepare you, with lots of time in the undergraduate teaching labs, supported by academic staff. I've enjoyed research so much that I'm currently considering a PhD and a career in this area.

Charlotte, Chemistry (with Industrial Training Year) MChem Honours

Research

Our research changes the world and with a degree from Newcastle University so could you. You'll be joining a pioneering community of academics who are investigating and solving challenges on the global stage.

Making a difference

We believe it isn't enough to ask what we're good at, we need to ask what we're good for. As a civic university, our research is focused on addressing the major challenges facing society. Our academics are developing knowledge and innovations that save lives and protect the planet, such as:

- finding a way to reverse Type 2 Diabetes
- researching renewable energy sources
- pioneering new methods of IVF

Quality and reputation

We are a 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 2014 Research Excellence Framework. The research income we secure means we attract top teachers and can invest in the best facilities to support your learning.

Research-informed teaching

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.

Get involved

You'll have plenty of opportunities to conduct your own research, making your own discoveries alongside our academic staff. A dissertation or research project gives you the chance to study a topic that interests you in real depth, and boost your CV with desirable skills like critical thinking and problem solving. You could:

- spend your summer vacation on our Research Scholarship Scheme
- apply for funding to conduct a research expedition overseas
- take part in a research study, as a volunteer or research assistant

www.ncl.ac.uk/research

16th
in the UK
for research
power
(REF 2014)

**Russell
Group**
university

Teaching and Learning

Newcastle welcomes enquiring minds and produces independent thinkers. Our stimulating curriculum and supportive teaching mean you will be challenged but supported, whilst our research-informed teaching engages your curiosity and fosters a dynamic learning environment.

Build on firm foundations

Studying at university is different to school, and we will support you to make that transition successfully and grow in confidence. In first year, you'll learn the fundamentals of your subject, giving you a strong foundation to build on in later stages. By your third year, you'll be engaged in advanced study and research, choosing from optional modules to shape your degree to your interests and aspirations.

Your journey of discovery

You'll be given plenty of autonomy to direct your own learning, through guided study and personal research. With over one million books, our multi-award-winning Library is a great place to start your journey of discovery. And with our international study opportunities your learning journey could take you anywhere in the world!

Celebrated teachers

You'll join an inspirational learning community of students and academics here, working alongside one another to share and generate knowledge. Our staff includes a number of National Teaching Fellows, who have been recognised by the UK Higher Education Academy for excellent practice and outstanding achievement in teaching and learning. Our students also celebrate their teachers through the Students' Union-run Teaching Excellence Awards each year.

www.ncl.ac.uk/undergraduate/teaching

Work-based learning

Show future employers that there's more to you than just impressive academic credentials. Build work experience into your studies and showcase your practical business skills. Many of our degrees let you incorporate a year-long work placement into your studies, and others offer Career Development Modules where you can gain academic credit for part-time work.

Graduate skills

We take your future seriously and have developed our Graduate Skills Framework to ensure your degree equips you with the skills you need to succeed. It covers everything from intellectual skills to personal enterprise. It means you'll develop essential attributes for the graduate job market, from teamwork and problem solving, to IT literacy and research.

Academic support

A personal tutor and student peer mentor will help you settle into academic life here (see page 36). And if you need a little extra help developing the numeracy and academic writing skills you need to excel at Newcastle, don't worry. We offer two study support services: Maths-Aid and the Writing Development Centre.



For teaching methods and contact hours for your chosen degree, see www.ncl.ac.uk/undergraduate/degrees

How will I learn?

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 your own 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 fellow students and deliver your 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

82%

of our 2014–15 graduates achieved a First or 2:1

3rd

in UK for quality of staff and lecturers*



29

Teaching and Learning

Facilities and Resources

At Newcastle you'll have everything you need to succeed – award-winning libraries, online learning and specialist facilities for your chosen subject. We've invested heavily in providing outstanding facilities and IT to support your learning, and plan to spend in excess of £200 million more over the next three years.

Library Service

You'll spend a lot of your student life in the library and Newcastle's is one of the best in the country – we've won multiple awards for our excellent customer service. 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 and Dental Library, and the Law Library. You can also study in the Majorie Robinson Library Rooms, with innovative digital learning spaces for individuals and groups. We have over one million print books and half a million e-books, a range of specialist resources and knowledgeable librarians trained to support students of all disciplines. www.ncl.ac.uk/library/about

IT facilities

Free WiFi, over 2,000 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 IT support and advice, Newcastle University IT Services are here to help. Download the University app to view your timetable, find a PC, manage your library account and get the latest Uni news.

Learn a new language

If you'd like to learn a new language at university, check out our award-winning Language Resource Centre. The Centre boasts self-study materials in over 150 languages, from Arabic to Zulu. You can even partner with a native speaker to practise your conversation skills: www.ncl.ac.uk/langcen

You can also take advantage of the University-Wide Language Programme which offers free classes in seven languages: www.ncl.ac.uk/uwlp

Revise and read online

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, to help you revisit material and enhance your understanding.

Boost your employability

Our modern facilities help prepare you for life after uni. In science and engineering especially, you'll experience the same high-tech work environment and equipment you'll use in industry, so you can hit the ground running when you get that graduate job!

2,000
computers and
campus-wide
WiFi

Multi-
award-
winning
Library
Service



Students' Union



Subject facilities

You'll have access to specialist facilities related to your chosen subject, for example, we have:

- an on-campus museum and art gallery
- a sea-going research vessel
- marine lab on the coast
- two commercial farms and a biology field station
- high-spec science and engineering labs
- music studios and rehearsal spaces
- anatomy labs and clinical skills suite
- on-campus language clinics
- studios for architecture and art
- translation and interpreting suites

Don't forget our proximity to the great outdoors: coast, countryside, World Heritage sites and amazing architecture are on your doorstep, providing a wealth of study opportunities.

Find out more about facilities for your chosen subject in our degree listings online: www.ncl.ac.uk/undergraduate/degrees

Study Abroad

Calling all intrepid travellers and global citizens... the world awaits. Take advantage of our wide range of study abroad opportunities and you could find yourself studying in the USA, working in Europe, or on an expedition in South East Asia. So pack your bags and your sense of adventure because the world is your oyster.

Where will you go?


Every year, hundreds of Newcastle students study abroad, experiencing different cultures, growing in confidence and making friendships that will last a lifetime, as well as developing impressive credentials for their CV.

You can study abroad in Europe via the Erasmus+ programme. We have opportunities in 21 European countries – France, Spain, Germany and Scandinavia are our most popular destinations.

Outside the EU, our partners include some of the world's most highly ranked institutions, such as the University of Sydney, University of Hong Kong and the National University of Singapore.

Study abroad opportunities can last from a single semester to a full year. Usually you'll be studying at a university overseas but on an Erasmus exchange you might also be able to work abroad, for example, teaching English as a foreign language.

Our dedicated Study Abroad team are 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.

Other ways to go global

We're ambitious on your behalf and want to prepare you for life after university, wherever in the world that might be. Here are some other ways you can internationalise your university experience:

- **Learn another language** – our University-Wide Language Programme provides access to free language classes, and our award-winning Language Resource Centre is a great place to practise
- **Work abroad** – some of our degrees include a year-long work placement that you can undertake abroad, or you could organise your own vacation work placement abroad with help from our Careers Service
- **Organise an overseas research expedition** – overseas research expeditions can be rewarding and exciting. Our Expeditions Committee can help you plan one and, in some cases, provide financial assistance
- **Take a study trip** – many degrees offer optional study trips and fieldwork in other countries

 Find out more
www.ncl.ac.uk/undergraduate/abroad



Supporting Your Application to Newcastle

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 a pre- and post-entry support programme and access to a range of bursaries. We have held the Frank Buttle Trust Quality Mark since 2008 and have been commended as 'exemplary' for our work in this area.



Disabled students

We welcome and support students with a range of additional needs, so you can access and enjoy university life to the full. If you have a disability, long-term medical or mental health condition, or a specific learning difficulty, 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. In 2015 we won the prestigious *Times Higher Education Award* for Outstanding Support for Students in recognition of our work to enable learners with autistic spectrum disorder to enjoy the full university experience.

www.ncl.ac.uk/students/wellbeing

PARTNERS – 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 3,000 students to enter university who might otherwise not have done.

You'll complete an assessed summer school at the University in the July of Year 13, which includes a project in your subject. If you pass the project, this provides 40 points towards your offer from the University, meaning the A level (or equivalent) grades we ask you for are lower than normal (eg ABB instead of AAA).

You'll also get: help with applying and understanding student finance; the chance to meet other students on the scheme; and to learn more about Newcastle and student life here. It is a great way to find out about university.

Are you:

- from a family with a low income?
- first in your family to apply to university?
- in care (or have been in care)?
- a high achiever but worried about getting your grades?
- not sure where to get information about university?
- worried about applying because you don't know anyone who's at university and don't know enough about it?

If any of the above applies to you, find out more about how PARTNERS can help you at www.ncl.ac.uk/partners

Student Profile

Natercia

- ▶ Modern Languages BA Honours
- ▶ Completed PARTNERS in 2012

How did PARTNERS help you apply to university?

I heard about PARTNERS through a talk that Newcastle Uni gave at my school. It lowered the entrance grades I needed to get onto my degree, which took away some of the pressure of my A level exams. I applied for some funding too and got it. I'm from a low income family, so that really helped me out.

What did you enjoy most about the Assessed Summer School?

I met so many prospective students and made great friends at the summer school. You get to meet lecturers who teach on your degree, so you'll know some friendly faces when you start uni. You do have some exams but you have a great team of academics to help you prepare. The chance to experience student life was interesting too: staying in student accommodation, going to lectures and getting a taste of what's to come.

Any advice for potential PARTNERS students?

PARTNERS is such a good opportunity at a really great university. I'm in my fourth year now and have never regretted my decision to come to Newcastle University!

MENTOR
SUPPORT

Lower Offer

SUMMER
SCHOOL

PARTNERS.
www.ncl.ac.uk/partners



35

Support

Support Throughout Your Studies

Everyone needs some help from time to time – that's where our friendly advisers and counsellors come in. Our low drop-out rates and high satisfaction score in the National Student Survey are testament to the excellent support you can expect at Newcastle.

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:

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 and social events that help you get to know the city

Induction events – School induction events are designed to help you get to know staff and fellow students

International Welcome Week – helps international students settle in quickly

Social media – follow us on social media and you can start making friends and learning about student life here before you arrive

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 or finance, 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.

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, legal information, personal, employment and consumer issues.

Academic support

You'll be supported by a personal tutor who can provide practical guidance on a wide 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 – who can 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. Our Student Wellbeing team can work with you to create a tailored package of support and help you apply for Disabled Students' Allowances (eligible UK students).

Emotional support

We provide a range of support to help you make the most of your time here. Our professional therapists provide free and confidential counselling and therapeutic support if you need it and are available throughout the year. Also, the Students' Union runs a confidential helpline, Nightline.

World faiths

Chaplains of diverse faiths are based in the University Chaplaincy and can support students of any faith or none. There is a dedicated Muslim prayer room on campus and student societies representing many of the major religions.

 Take a tour of King's Gate online
www.ncl.ac.uk/tour

 Find out more
www.ncl.ac.uk/student/wellbeing

Satisfied Students

In the 2015 National Student Survey, our students gave us a resounding thumbs up. Asked to rate their experience here, our students placed us consistently above the national average. Overall, 91 per cent of our students are satisfied with their experience here, placing us top 10 in the UK, and joint first in the Russell Group!

% of students who agree or strongly agree to satisfaction in:

	Newcastle	HE Sector
Overall satisfaction	91%	86%
The teaching on my course	89%	87%
Assessment and feedback	71%	73%
Academic support	86%	82%
Organisation and management	86%	79%
Learning resources	91%	87%
Personal development	86%	83%
Students' Union	81%	69%

Times Higher Education Award winner 2015 for outstanding support for students*

*See page 34 for details

International Students

7,000 international students choose to call Newcastle University home and find a warm welcome in our cosmopolitan city. We have a range of services to help you, including visa and immigration support, English language courses, and social events to help you make the most of your time here.

Meeting us

Our international staff regularly travel abroad to meet new students and answer any questions you have. We also work with a network of international education agents who can advise you. Find out when we're visiting a city near you, or find a local agent, on our web pages.

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 who can provide advice and guidance on this, and other immigration issues: www.ncl.ac.uk/students/progress/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'll help you with essential tasks to adjust quickly to life in the UK, such as opening a bank account and registering with a doctor.

Airport collection

As part of the Welcome programme, on selected days in September and January, staff and students will be at Newcastle International Airport to meet you from your flight. If you are staying in University accommodation, our free bus service will take you directly there.

Christmas in Newcastle

We run a range of social activities over Christmas for international students. These help you learn more about UK culture and enjoy this important holiday. Activities include ice skating, day trips, festive films, and a traditional Christmas dinner.

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 adequate knowledge of written and spoken English before you begin your studies. For detailed information see page 52.

We offer a range of English language support to international students. If you are not a native speaker of English we ask you to take a short English language assessment when you first arrive. This helps us to identify what extra English language support you may need while you are here.

If you do need some extra help, we can provide:

- free in-session English courses
- tandem learning, partnering you with an English-speaking student who wants to learn your language
- online materials to help you with writing, grammar and vocabulary

There are also courses available on campus through INTO Newcastle University, to prepare you for university study (see opposite).

A range of English language and academic preparation courses is also offered at our Newcastle University London campus (see page 52)

 Find out more
www.ncl.ac.uk/international

92%

overall satisfaction
from international
students*

INTO Newcastle University

Newcastle University has a partnership with INTO University Partnerships, an organisation that provides courses that prepare international students for university study. INTO Newcastle University 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 eight years, INTO Newcastle University has helped over 7,500 students develop the high levels of academic knowledge and English language skills required for university.

INTO Newcastle University is based in a purpose-built study centre in the heart of the University campus, and just minutes from the city centre. The Centre boasts state-of-the-art teaching and learning facilities for up to 1,000 international students, as well as dedicated accommodation.

The Centre has university-standard learning spaces and uses university teaching methods including lectures, hands-on laboratory work, seminars, tutorials, and supported self-study and e-learning.

All INTO Newcastle University students are also registered students of Newcastle University and can therefore take full advantage of the fantastic range of facilities available on the University campus.

See pages 52–53 for information about courses offered at INTO Newcastle University.



Watch a video about INTO
www.myin.to/intonclvideos



Tour the INTO Centre online
<http://ncl-tour.intohigher.com>



Find out more
www.intohigher.com/newcastle



Award-winning Careers Support

Our highly employable and talented graduates are well equipped for their futures. As a result, we consistently have one of the best records for graduate employment in the UK, ranked in the top 25 across the major university league tables for graduate career prospects.

Graduate success

As a world-class university we produce world-class graduates with excellent career prospects. 94.1 per cent of our 2014 UK/EU graduates entered employment or further study within six months of graduating, above the national average of 93.2 per cent*.

The Times/Sunday Times University Guide 2016 gives us a graduate prospects score of 79.1 per cent. This means more than three-quarters of those in work, study or both are in professional jobs or graduate-level study.

We are also in the top 25 for graduate career prospects in *The Times/Sunday Times University Guide 2016*, *The Guardian University Guide 2016* and *The Complete University Guide 2016*.

Strong employer links

We work closely with high-profile national and international employers. We are consistently one of the UK top 20 most targeted universities by *The Times Top 100 Graduate Employers***.


This list includes companies like PwC, Jaguar Land Rover, Goldman Sachs and Aldi.

We also have excellent links with regional businesses, which provide a wide range of work experience and graduate opportunities. Over 40 per cent of our graduates choose to stay in the North East region*.

We advertise over 3,000 vacancies, work experience and placement opportunities annually and more than 250 employers come to visit our campus each year to deliver presentations, hold interviews and attend recruitment fairs to attract our talented students.

Work placements

We encourage all students to consider taking a 9–12-month work placement as part of their degree. A work placement gives you the chance to gain the workplace skills and commercial awareness that recruiters expect.

Many of our degrees include an integrated year-long work placement – look out for the work placement icon  to see if your degree offers it. Even if your chosen course doesn't offer an integrated placement year, you can still apply to take one.

Past students have enjoyed placement opportunities with national and international organisations. Some even secure employment with their host organisation after they graduate (see Harry on page 44).

Unless it is a requirement of your course, placements aren't guaranteed, as they depend on the opportunities made available by employers. However, if you opt to take a placement, you will receive support from your School and/or the University Careers Service to help you source an appropriate opportunity and make your application.



41

Careers

Student Profile

Christina's work experience

- ▶ **Marketing BSc Honours**
- ▶ **Digital Marketing and Social Media placement, Newcastle University**

My day-to-day role involves monitoring and creating new digital marketing and communications and content for the University's core social media accounts and pre-application On Course to NCL website.

I found this placement on the University's Careers Service website and knew straight away that it would be the perfect fit for me to gain valuable industry experience while staying here in Newcastle.

It has definitely done that and more! I've had the opportunity to truly showcase my potential and develop skills in a number of key areas that will no doubt help me in my final year of university and my graduate job applications.

Work on campus

The University is a great source of work experience. We offer a number of opportunities for students seeking a work placement as part of their degree (see Christina's profile on page 41). Also, many of our students find work here through our Jobs On Campus agency. This advertises convenient part-time posts at the University that you can fit around your studies.

Relevant to the workplace

We work closely with employers to ensure that our degrees reflect the skills needed in the world of work.

The majority of our academic schools have advisory boards with graduate employers as members. Many of our degrees are also accredited by professional organisations.

Employers regularly come on campus to deliver lectures and practical sessions. You also benefit from teaching and assessment methods that encourage the development of transferable skills, such as teamwork and project-based work.

Our degrees have a strong focus on employability, through direct input from employers on the design of programmes.

Many degrees include Career Development Modules, which enable you to undertake work experience, volunteering, or paid work as an accredited part of your degree.

The wide range of ways in which we develop the employability of our students was specially commended by the UK Quality Assurance Agency (QAA).

Award-winning careers support

Our award-winning Careers Service is one of the best, largest and most innovative in the UK. Our package of careers support helps you to develop the strategies to be successful in an increasingly challenging market.

One-to-one sessions with a professional careers adviser, drop-in CV checks, unique online resources, and a wide range of skills development workshops covering topics such as how to succeed at interviews, are just some of the services available to you.

Careers Service staff also work closely with academic schools to provide information and workshops that are tailored to your degree programme.

Our Graduate Connections online networking tool enables current students to access careers-related knowledge and experience from past graduates.

Newcastle graduates benefit from our careers support for up to three years after graduation, and on-going business start-up support is also available. www.ncl.ac.uk/careers/about

We want graduates who are self-driven, can come into the business and make an impact from day one. Newcastle students exhibit all of those qualities. Our desired leadership skills come in spades from Newcastle graduates.

Doug Hobson, Graduate Programme Manager, Tesco



 Tour our Careers Service online
www.ncl.ac.uk/tour/campus/kings-gate

 Find out more
www.ncl.ac.uk/careers

Adding to your degree

Our award-winning ncl+ initiative brings together activities from across the University, providing opportunities that enable you to develop the skills in demand by graduate employers.

They include paid activities such as Newcastle Work Experience placements in a local business, and extracurricular activities such as participating in clubs and societies, volunteering and getting involved in student media (see Gemma's profile, right).

This activity is all accredited through our ncl+ Award, which enables you to reflect on the skills you are developing and articulate these when making job applications. The Award is also recognised on your Higher Education Achievement Report (HEAR), which gives potential employers a detailed picture of the achievements made at university.

The annual Pride of Newcastle University Awards recognise and celebrate the achievements of our students who contribute to the University, local community, and our wider society through their extracurricular activities.

www.ncl.ac.uk/careers/develop



Student Profile

Gemma's dream job

My role as a Live Producer at Sky Sports News has taken me to the Brazil World Cup, Champions League matches, Play-Off finals, League Cup Finals, the London Olympics and the Ashes.

At events, it's my responsibility to arrange guests for interviews, chase stories, make sure reporters are on air on time and they know what to say.

When choosing a university I wanted a city with sporting enthusiasm, as well as a course that gave me a solid grounding for working with words and creativity; so I chose English Language at Newcastle University. I got involved with the student newspaper, *The Courier*, and it helped prepare me for my career now.

I was involved with *The Courier* from Freshers' Week, and they even gave me my first job, as I was elected to be full-time Editor after I graduated. I then went on to complete a postgraduate degree in Broadcast Journalism elsewhere and it was on that course that I did a work placement at Sky News which led to a full-time job at SSN.

I come across many Newcastle graduates in my line of work and we remain proud to have started here.

Gemma, Live Producer at Sky Sports News, English Language BA Honours Graduate



Student Profile

Harry's job offer

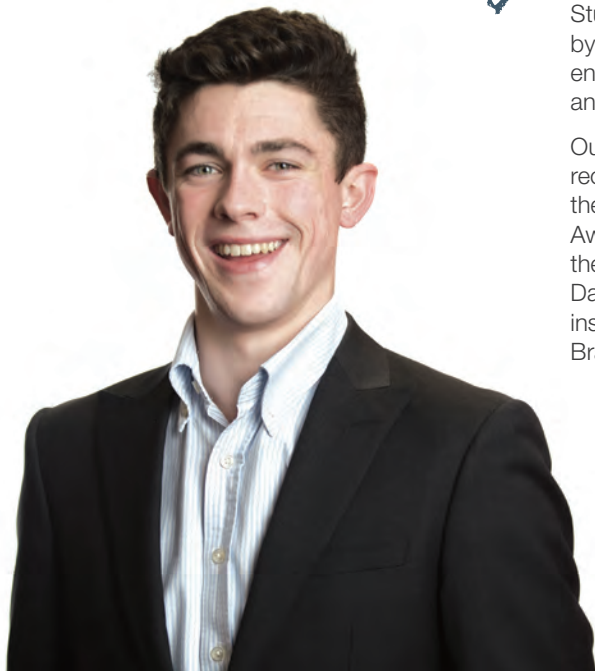
I chose to do a placement because I wanted to have something on my CV to help me to stand out from other graduates. I used the Careers Service's mock interview and practice assessment centre services to help secure my placement at Accenture.

My placement was split into two six-month projects – the first was working for a multi national oil and gas firm in Canary Wharf, London. My second project involved working in the financial services division of Accenture for an Edinburgh-based client.

During the 12 months, I gained a wide variety of business skills and knowledge. Collaborating in a global environment helped me to appreciate different working cultures and manage interactions between time zones. My presentation and time management skills were also hugely improved.

Working in a consultancy-based role has allowed me to see a number of different industries, helping to shape my future career decisions. I have successfully secured a full-time graduate role with Accenture on the premise that I achieve a 2:1 or higher in my final degree classification.

**Harry, Geography BA Honours,
Business Analyst Placement, Accenture**



Education for life

We encourage all of our students to think about their future early in their studies, and have collaborated closely with employers to identify a set of skills which are needed after graduation that students can develop as part of their degrees and outside their studies. These skills, such as business awareness, self-awareness and communication, are outlined in our Graduate Skills Framework.

Newcastle students always bring innovative ideas and consider business decisions with an entrepreneurial mindset. They are filled with energy, act with integrity and are always motivated to go above and beyond.

Graduate recruitment, L'Oréal UK

Supporting entrepreneurs

Many of our students want to pursue their own business ideas and we provide a range of services to support entrepreneurship.

These students are supported by a dedicated team of business advisers, entrepreneurs and professional partners, and a programme of workshops.

In the past ten years, our outstanding support has helped hundreds of students to launch their own businesses, including RadFan, MediWikis, Stu Brew, and Beauty by the Geeks.

Students are supported to develop their ideas by a dedicated team of business coaches, entrepreneurs and professional partners, and a programme of workshops.

Our enterprising students have won national recognition for their innovative ideas, including the 2015 Santander Universities Entrepreneurship Award, 2015 NUS Award for Enterprise, and the Point of Light award from Prime Minister David Cameron. We've also welcomed many inspiring speakers to campus, including Richard Branson, Jamie Combs and Paul Forkan.

Support After You've Graduated

Newcastle University Alumni

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

Newcastle University has a global network of 180,000 graduates in more than 200 countries and independent states around the world, so wherever you find yourself, you can be sure you'll never be far from a fellow Newcastle graduate.

Offering access to a wide range of lifelong services and benefits, we continue to support your development and future prospects. From generous discounts for postgraduate study, ongoing careers advice and mentoring opportunities, to on-campus services, we help our graduates make the most of life after University. We also hold a range of events every year across the globe, from social occasions and reunions to careers guidance and professional networking opportunities.

We are committed to playing a role in the lives of all of our graduates and ensuring that, as a holder of a Newcastle University degree, you remain part of a very special community.

To find out more about the benefits of being a Newcastle graduate, and our worldwide network of alumni, visit www.ncl.ac.uk/alumni



Financing Your Studies

Our high graduate employability and low cost of living mean a degree from Newcastle is a sound financial investment. To help you finance your studies, the University offers a generous range of scholarships and provides help finding part-time work that you can fit around your studies.

UK and EU Students

UK/EU tuition fee

Newcastle University is charging a tuition fee of £9,000 per year to new UK/EU undergraduates who start degrees in 2016. Please note that the tuition fee you pay may increase slightly year on year in line with inflation and subject to government regulations*.

Check out our degree information online for the most up-to-date tuition fee information for the individual degree that you are interested in, and to find out more about fee discounts for degrees with placement years.

www.ncl.ac.uk/undergraduate/degrees

Good to know!

UK/EU students

- You don't have to pay any tuition fees whilst you are studying
- All students are entitled to a loan to cover the full cost of their tuition fees while they are at university
- UK students are also entitled to a loan to help with living costs
- Both the tuition fee loan and living costs loan are rolled into one. You only start repaying your loan once you're employed and earning more than £21,000 a year**
- Your monthly loan repayments are based on how much you earn over £21,000, not how much you borrowed. For example, if your salary is £25,000 per year, you will pay 9 per cent of £4,000, which works out as £6.92 per week**

Newcastle University Scholarships

We invest millions of pounds in financial support for UK students who choose to come and study here. One in three undergraduate students will receive financial help towards their studies. Scholarship amounts vary from £500 to £9,000 per year.

The range of scholarships on offer includes targeted support for students from lower income families, scholarships for particular subjects and sports scholarships.

Extra help and support

As a student at Newcastle, we provide you with help and advice on student finance issues. Additional financial support may be available to students who need it while they are studying here. Also, our Careers Service can help you access part-time, temporary or vacation work at Newcastle University and businesses in the Newcastle area. Not only will this boost your income, but you'll also gain valuable skills and experience to add to your CV!

Cost of living

Newcastle is a cost-effective student city, with lower than average student rents and a relatively low cost of living. Many shops and markets offer quality goods at low prices, and our compact city centre means you can save travel costs by walking and cycling.

Additional costs

Some of our degrees involve extra costs that are not covered by your tuition fees. These include some subject-specific costs such as extra equipment/materials for individual projects and some field trips/fieldwork. For further information on additional costs, see www.ncl.ac.uk/undergraduate/finance

International (non-EU) Students

International tuition fees

The tuition fees for full-time international students are different depending on the degree that you choose to study. For 2017–18 they are expected to be as follows:

Subjects

International (non-EU) students

Accounting and Finance; Business Management; Classics and Ancient History; Combined Honours; Economics; Education; English Literature, Language and Linguistics; Geography; History; Law; Marketing; Mathematics and Statistics; Media, Journalism and Film Practice; Modern Languages; Philosophy; Politics; Sociology

£13,980

Agri-Business Management; Agriculture; Animal Science; Archaeology; Architecture; Biology and Zoology; Biomedical and Biomolecular Sciences; Chemistry; Computer Science; Earth Science; Engineering (all); Environmental and Rural Studies; Fine Art; Marine Sciences; Marine Technology; Music; Nutrition and Food; Physics; Psychology; Speech and Language Sciences; Surveying and Mapping Science; Urban Planning

£17,935

Medicine; Dentistry

£17,935 (except clinical years)

£33,190 (clinical years)

Scholarships and fee discounts

Newcastle University offers a number of partial scholarships to international students, including:

International Undergraduate Merit Scholarships

These are awarded to international students who study for their first degree at Newcastle University and are worth £1,500 for the first year of study only (conditions apply).

International Family Discounts – A 10 per cent fee discount for the total cost of the degree is available for all international students with a close family member who has graduated from or is currently studying at Newcastle University (conditions apply).

Subject Scholarships – Some of our subject scholarships are available for international students.

Sports Scholarships – We offer a range of scholarships to support talented sportsmen and sportswomen. See page 20 for details.

Cost of living

International students find Newcastle an inexpensive place to live compared to many other places in the UK to live. For more information, visit www.ncl.ac.uk/international/finance

Additional costs

Some of our degrees involve extra costs that are not covered by your tuition fees. These include some subject-specific costs such as extra equipment/materials for individual projects and some field trips/fieldwork. For further information on additional costs, see www.ncl.ac.uk/undergraduate/finance



*Government guidance for the level of tuition fee for students starting in 2017 had not been issued at the time of going to print in January 2016. **Student Finance England arrangements. Students from Scotland, Wales and Northern Ireland should refer to their own student finance body.

Our Subjects

Not sure which subject your chosen degree comes under?
See our A-Z Degree Index on pages 226–231 for a full list
of all the degrees we offer.

Accounting and Finance.....	54	Environmental and Rural Studies.....	137
Agri-Business Management.....	58	Fine Art.....	141
Agriculture.....	60	Geography.....	144
Animal Science.....	63	History.....	149
Archaeology.....	65	Law.....	152
Architecture.....	68	Marine Sciences.....	154
Biology and Zoology.....	71	Marine Technology.....	157
Biomedical and Biomolecular Sciences.....	76	Marketing.....	161
Business Management.....	82	Mathematics and Statistics.....	165
Chemical Engineering.....	86	Mechanical Engineering.....	169
Chemistry.....	91	Media, Journalism and Film Practice.....	174
Civil Engineering.....	95	Medicine.....	178
Classics and Ancient History.....	99	Modern Languages.....	183
Combined Honours.....	102	Music.....	188
Computer Science.....	106	Nutrition and Food.....	192
Dentistry.....	112	Philosophy.....	196
Earth Science.....	117	Physics.....	198
Economics.....	119	Politics.....	200
Education.....	123	Psychology.....	203
Electrical and Electronic Engineering.....	125	Sociology.....	206
English Literature, Language and Linguistics.....	130	Speech and Language Sciences.....	209
		Surveying and Mapping Science.....	212
		Urban Planning.....	215



University Preparation Courses

If you have not yet got the qualifications you need to enter university,
we have a variety of foundation programmes and university preparation
courses to help you. We offer courses for UK, EU and international students,
both here at the University and through reputable partner organisations.

Foundation programmes for all students are listed on pages 49–51 and
preparatory courses for international students are listed on pages 52–53.

Foundation programmes – all students

A foundation year is a full-time programme designed to prepare you
for degree-level study at university. It might suit you if you have shown
that you have the aptitude for university study but do not have the
right qualifications for direct entry.

For example, if you:

- don't have the required A levels (or equivalent)
- are a mature applicant with technical/vocational qualifications or relevant experience from employment
- have qualifications for a different educational system

Successful completion of a foundation year leads to direct entry onto a relevant undergraduate degree at Newcastle University.

Mathematical Sciences with Foundation Year

If you do not 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.

Successful completion of the foundation year leads to guaranteed progression to Stage 1 of our Mathematics and Statistics BSc degrees.

Mathematical Sciences with Foundation Year BSc Honours

UCAS code G101

Leads to any Mathematics and Statistics degrees – see page 165

Entrance requirements

All candidates are considered on an individual basis. Please note that this programme is not aimed at students who have already gained an A level mathematics qualification.

How to apply

You apply via UCAS in the usual way.
See www.ncl.ac.uk/undergraduate/apply



Engineering foundation programmes

On successful completion of an engineering 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.

Our programmes

Chemical Engineering with Foundation Year

- BEng Honours – UCAS code H814
- MEng Honours – UCAS code H816

Leads to one of our Chemical Engineering degrees – see page 86

Civil Engineering with Foundation Year

- BEng Honours – UCAS code H201
- MEng Honours – UCAS code H291

Leads to one of our Civil Engineering degrees – see page 95

Electrical and Electronic Engineering with Foundation Year

- BEng Honours – UCAS code H604
- MEng Honours – UCAS code H606

Leads to one of our Electrical and Electronic Engineering degrees – see page 125

Engineering with Foundation Year

- BEng Honours – UCAS code H101
- MEng Honours – UCAS code H103

Leads to any of our engineering degrees

Marine Technology with Foundation Year

- BEng Honours – UCAS code J615
- MEng Honours – UCAS code J616

Leads to one of our Marine Technology degrees – see page 157

Mechanical Engineering with Foundation Year

- BEng Honours – UCAS code H304
- MEng Honours – UCAS code H305

Leads to one of our Mechanical Engineering degrees – page 169

Entrance requirements

A levels: Offers in the range of AAA–AAB depending on the degree chosen. Please see specific web pages for detailed entrance requirements for your chosen degree.

International Baccalaureate: Offers in the range of 35–37 points depending on the degree chosen. Please see specific web pages for detailed entrance requirements for your chosen degree.

How to apply

You apply via UCAS in the usual way. See www.ncl.ac.uk/undergraduate/apply

You may also be interested in...

Pre-Entry Mathematics course

If you want to study engineering at Newcastle University and you are only missing the required mathematics qualifications for direct entry to Stage 1, you may be invited to our Pre-Entry Mathematics Course.

Passing this course allows direct entry to Stage 1 of your chosen engineering degree.

Find out more in the Entry Requirements tab of your chosen engineering degree online. www.ncl.ac.uk/undergraduate/degrees

Northumberland College foundation programmes

In partnership with Northumberland College, we offer a number of foundation programmes related to animals and land-based subjects.

Successful completion of one of the foundation programmes below offers direct entry to Stage 2 of one of the many degrees in Newcastle University's School of Agriculture, Food and Rural Development, subject to the achievement of specific grades.

Programmes available

Foundation Degree in Applied Animal Management

Leads on to our Animal Science BSc Honours degree – see page 63

Foundation Degree in Equestrian Performance and Coaching

Leads on to our Animal Science BSc Honours degree – see page 63

Please note: there is no equitation module in the Animal Science programme at Newcastle University

Foundation Degree in Rural Tourism and Enterprise Management

Leads on to our Rural Studies BSc Honours degree – see page 137

Foundation Degree in Agriculture

Leads on to one of our Agriculture degrees – see page 60

Foundation Degree in Environmental Conservation

Leads on to our Countryside Management BSc Honours or Environmental Science BSc Honours degree – see page 137

Entrance requirements

A levels: A combination of A or A/S levels: 120 UCAS tariff points or above is required. For example two A levels at D grade would accrue 120 UCAS tariff points.

International Baccalaureate: 24 IB Diploma Points or above, or grade AA IB Extended Essay (or equivalent) are required.

Additional requirements: Applicants are required to have achieved GCSEs at grade C or above in Mathematics, English and Science (or equivalent). Satisfactory references from the applicant's last academic institution and from an industrial representative will be required.

How to apply

To apply for a foundation programme, you should apply to Northumberland College via UCAS. Once at Northumberland College, you make a second UCAS application, to apply for a place at Newcastle University. Find out more at www.northumberland.ac.uk



English language and university preparation courses – international and EU students

If you are an international student thinking about studying at Newcastle University, we can help you prepare academically, to ensure you get the most out of your time here.

We offer a wide range of English language and academic preparation courses. You can choose to study in Newcastle (with INTO Newcastle University) or London (with Newcastle University London).

For more information about INTO Newcastle University see page 39, and for more information on Newcastle University London see page 24.

English language courses at INTO Newcastle University

English for University Study

For students who want to improve their level of academic English or to meet the language requirements for a degree at Newcastle University.

Start dates in September, January, April and June

Study Abroad with English

For students who want to experience life at a UK university and improve their English language skills.

Start dates in September, January, April and July

Pre-sessional English

A 6- or 10-week course over the summer. For students already holding an offer to study at Newcastle University, who want to improve their English before the start of their course.

Start dates in June and July

English language courses at Newcastle University London

English for University Study

This course focuses on academic English and the study skills you need for entry to a further academic preparation programme or degree course at Newcastle University London.

Start dates in September, January, April and July

Pre-sessional English

A 6- or 10-week course held over the summer. For students already holding an offer to study at Newcastle University London, who want to improve their English before the start of their course.

Start dates in June and July



University preparation courses at INTO Newcastle University

International Foundation

Preparing you for direct entry into the first year of your undergraduate degree. Pathways available in:

- Architecture
- Biological and Biomedical Sciences
- Business and Management
- Humanities and Social Sciences
- Physical Sciences and Engineering

Start dates in June, September and January

International Year One

Preparing you for direct entry into the second year of an undergraduate degree. Pathways available in:

- Architecture
- Business

Start dates in June, September and January



How to apply

To apply for a course at INTO Newcastle University or to find out more:

Visit: www.intohigher.com/newcastle

Apply online: www.intohigher.com/newcastle/apply

Enquiries: enquiries@into.uk.com

University preparation courses at Newcastle University London

International Foundation in Business

This pathway offers you progression to Year 1 of an undergraduate degree at Newcastle University London:

- Accounting and Finance (see page 56)
- International Business Management (see page 85)
- International Marketing and Management (see page 164)

Start dates in July, September and January

International Year One in Business

This programme 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:

- International Business Management (see page 85)
- International Marketing and Management (see page 164)

Start dates in July, September and January



To apply for a course at Newcastle University London or to find out more:

Visit: www.ncl.ac.uk/london

Apply online: www.ncl.ac.uk/london/apply

Enquiries: newcastlelondon@ncl.ac.uk

Accounting and Finance

Accountancy degrees at Newcastle balance academic theory with real-life problem-solving and technical skills. Get a head start on your career with integrated career development modules and dedicated careers support at every stage of your degree. Enjoy close interaction with chartered accountants and gain insight into industry with regular guest lecturers from leading accountancy firms and experts from across a range of businesses. Graduate with an industry-recognised qualification and knowledge informed by relevant research and practitioner insight.

- ▶ **Gain an industry-recognised degree** – our degrees are professionally accredited (see opposite) so employers recognise the quality of your degree
- ▶ **Fast track your career** – enjoy accelerated progress to professional qualification through a wide range of professional exemptions
- ▶ **Work for PwC as part of your degree** – choose our Business Accounting and Finance degree and benefit from built-in paid work placements at PwC
- ▶ **Gain exposure to employers** – prizes for outstanding students, sponsored by major firms and professional bodies, give you exposure to future employers
- ▶ **Enjoy career planning support** – including our dedicated Careers Adviser and annual Career Development Week
- ▶ **Boost your CV with a work placement** – spend a year on work placement; our dedicated Business School Placement Officer can help
- ▶ **Enjoy modern teaching and learning facilities** – study in our £50 million Business School building in the heart of Newcastle's business district

London campus
We also offer an exciting opportunity to study Accounting and Finance at our new campus, close to London's financial district. Find out more on page 56

Degrees	Page
Newcastle campus	
Accounting and Finance BA Honours	56
Accounting and Finance with Placement BA Honours	56
Accounting and Mathematics BSc Honours	57
Business Accounting and Finance BA Honours	57
London campus	
Accounting and Finance BSc Honours	56
Accounting and Finance with Placement BSc Honours	56
You may also be interested in...	
Agri-Business Management	
Business Management	
Economics	
Marketing	
Mathematics and Statistics	

See page 232 for a full list of degrees by subject.

The degree taught me much more than just the theory behind accounting and finance. Through work placements and projects, I gained a much better appreciation of the business world.

Akhil, Business Accounting and Finance BA Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

- Accounting and Finance BA Honours***
- Accounting and Finance with Placement BA Honours***
- Accounting and Finance BSc Honours (London campus)***
- Accounting and Finance with Placement BSc Honours (London campus)***

A levels: AAB excluding General Studies. See online for further information on preferred subjects. Minimum grade A in GCSE Mathematics and grade B in GCSE English (if not offered at a higher level).

International Baccalaureate: 35 points. Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level.

International students: For information about university preparation courses see page 49.

Accounting and Mathematics BSc Honours

A levels: AAB–ABB including Mathematics at grade A and excluding General Studies.

International Baccalaureate: A minimum of 35 points with Mathematics grade 6 at Higher Level.

Business Accounting and Finance BA Honours*

A levels: AAB excluding General Studies. See online for further information on preferred subjects. GCSE Mathematics grade A and GCSE English grade B required if not taken at A or AS level.

International Baccalaureate: A minimum of 35 points with three subjects at grade 5 or above at Higher Level, preferably including Mathematics. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

Selection process: Shortlisted applicants will be invited to interview. Find out more at www.ncl.ac.uk/flyingstart/apply

*See online for additional information about GCSE (or equivalent) requirements.

League Table Ranking

Accounting and Finance at Newcastle ranks in the top 20 UK universities for Accounting and Finance in *The Times/Sunday Times University Guide 2016* and *The Complete University Guide 2016*. We also rank in the top 200 universities in the world in the *QS World University Rankings by Subject 2015*.

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 Newcastle degrees are accredited and offer a number of exemptions, putting you on the fast track to your professional career.

Our Accounting and Finance BA Honours degree is professionally accredited by the Institute for Chartered Accountants in England and Wales (ICAEW) and upon successful completion students will have completed eight of the 15 papers of the ICAEW ACA qualification. It also offers exemptions for some of the professional examinations of: the Association of Chartered Certified Accountants; Association of International Accountants; Chartered Institute of Public Finance and Accountancy; and the Chartered Institute of Management Accountants.

We are an IMC Advantage Partner with the Chartered Financial Analysts' Society UK, which means our Accounting and Finance degrees are 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 ACA qualification.

Our London-based Accounting and Finance BSc Honours degree is professionally accredited by ICAEW and upon successful completion students will have completed seven of the 15 papers of the ICAEW ACA qualification. It also offers exemptions for some of the professional examinations of the Chartered Institute of Management Accountants.

DTUS Sponsorship

Our Accounting and Finance BA Honours degree (Newcastle) is approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

Careers

Our degrees provide you with the knowledge you need to pursue chartered accountant status should you wish to. Although many of our graduates become accountants, you will graduate well equipped for a range of other careers too. You will develop strong knowledge of accounting, finance, economics and law, alongside analytical and interpersonal skills, and personal enterprise and commercial awareness. This provides a firm foundation for a wide range of careers in finance, financial services, business and beyond.

Accounting and Finance

BA Honours | N400 | 3 years | [Study abroad icon] [Professional accreditation icon]

BA Honours with Placement
N401 | 4 years | [Work placement icon] [Professional accreditation icon]

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

Stage 1: We introduce you to the subject through core topics covering: financial accounting; management accounting and finance; and professional skills. We balance this with a range of disciplines including: economics; mathematics; statistics; management; and an introduction to English law.

Stage 2: We develop your skills in finance, financial accounting, and management accounting. 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, career development, or a foreign language.

Work placement (N401): Between Stages 2 and 3 you have the opportunity to spend a year on a work placement with an approved organisation.

During your time on placement you will be supported by an academic member of staff and the School's dedicated Placement Officer. Our students have been accepted for placements in many large companies, including Nissan, P&G, Amazon, PwC, Ernst & Young, KPMG, Virgin Media, Warner Brothers, Network Rail, First Derivatives, and BAE Systems. Alternatively, if you are not taking a work placement, you may apply to spend a year studying abroad.

Stage 3: You 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 linked to the research interests of our staff, including: taxation; behavioural finance; derivative securities; and accounting development and change.

You can also choose modules from elsewhere in the Business School and wider University, allowing you to gain experience in other subjects. By choosing our career development module, you can boost your employability through work-related learning. You can also choose to complete a dissertation on a research topic that interests you.

Accounting and Finance (London campus)

BSc Honours | N402 | 3 years | [Professional accreditation icon]

BSc Honours with Placement
N404 | 4 years | [Work placement icon] [Professional accreditation icon]

This programme provides a firm foundation in accounting and finance. You'll learn a balance of academic theory and real-life problem-solving skills. You will be based in Newcastle University London – see page 24. Our London campus is located in the central financial district, so you'll benefit from exposure to a variety of global businesses, work placement opportunities and masterclasses delivered by industry professionals.

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 management 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; and understanding company accounts.

Work placement (N404): Between Stages 2 and 3 you have the opportunity to spend a year on a work placement with an approved organisation. We have established strong 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.

Stage 3: You complete further compulsory modules covering: accounting, organisations and society; derivatives markets; financial accounting; international financial management; management accounting; and taxation in accounting. You may also boost your employability through work-related learning, or undertake a dissertation on a chosen research topic.

Accounting and Mathematics

BSc Honours | NG41 | 3 years

This degree is part of our Joint Honours in Science scheme. It allows you to combine practical experience of 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 in two Schools and receive outstanding support to help you settle into both.

Stage 1: We introduce you to accounting and finance through modules in financial accounting and management accounting. You also study core topics in mathematics and statistics including: mathematical methods; analytic geometry and the foundations of differential equations; modelling with differential equations; and introduction to probability and statistics. You develop your communication and study skills by working in small group tutorials.

Stage 2: In accounting, you develop skills in financial control, interpreting company accounts and financial accounting. Your core mathematical topics include: methods for solving differential equations; number systems; vector calculus; foundations of probability; and regression and modelling.

Stage 3: You take compulsory modules in financial and management accounting, and can choose an optional module exploring real-life case studies to develop your business knowledge. In mathematics, you can choose from a variety of topics that are closely linked to our research expertise. These include stochastic financial modelling, time series forecasting, and statistical modelling. You may also choose optional modules to focus your studies on an area of interest to you, or to focus on your career development.

Business Accounting and Finance

BA Honours | NN14 | 4 years | [Study abroad icon] [Professional accreditation icon]

This innovative degree is delivered in collaboration with professional services firm PwC and the Institute of Chartered Accountants in England and Wales (ICAEW). Combining the study of business, accounting and finance with guaranteed paid work placements at PwC, it accelerates your progress to qualification as a chartered accountant. The result is that you could be fully qualified in just over a year after graduation.

- Custom-designed modules that satisfy the requirements for ICAEW's Professional Level examinations
- Placements in Stages 2, 3 and 4 that contribute to the approved technical work experience required by ICAEW on the route to chartered accountant qualification – work on real projects for real clients as part of PwC's Assurance team
- Placement locations across the UK, with practical help and financial relocation assistance available from PwC
- Attractive salary and paid holiday provided during your placement

Stage 1: We introduce you to the subject through core topics covering: financial accounting; management accounting and finance; economics; mathematics; statistics; and professional skills. We balance this with a range of business disciplines including management and an introduction to English law.

Stages 2 and 3: The bespoke teaching and training begins 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.

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. Your third placement runs from mid-November to Easter, where you gain further auditing experience and are likely to be supervising others.



Agri-Business Management

Agri-business management provides an ideal platform if you are interested in applied business studies and want to stand out from the crowd. It offers a multidisciplinary overview of one of the world's largest and most vital industries – the agri-food sector. The result is a highly practical degree that focuses on the business processes involved in managing the delivery of food, fibre and energy to national and international markets, opening the door to a wide range of careers.

- ▶ **Choose from a variety of topics** – our broad-based curriculum lets you explore diverse topics in agri-business management, agriculture, economics, law, marketing, nutrition and psychology
- ▶ **Tailor your degree to your career plans** – develop the knowledge you need for a career at any point in the agri-food chain, such as business management, food production and retail
- ▶ **Get real-world business experience** – choose an optional 12-month professional work placement in the UK or abroad to boost your skills and CV
- ▶ **Enjoy career development opportunities** – integrated careers support and optional career development modules allow you to earn academic credit for work-related learning or entrepreneurial skill development
- ▶ **Gain an insight into the business world** – hear guest speakers from, and enjoy study visits to, organisations representing the food supply chain. Recent examples included JR Holland, Tyne Grain, Asda and Blagdon Estate
- ▶ **Enjoy practical experience in our fantastic facilities** – including access to the University's two commercial farms and product development facilities

Degrees	Page
Agri-Business Management BSc Honours	59
You may also be interested in...	
Agriculture	
Business Management	
Economics	
Environmental and Rural Studies	
Marketing	
Nutrition and Food	

See page 232 for a full list of degrees by subject.

It's a fantastic university with brilliant modules and structure. You get lots of support and all the School staff are very helpful. The Careers Service is excellent and will give hours of time to look and relook at your CV.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Agri-Business Management BSc Honours

A levels: AAB–ABB including General Studies. GCSE Mathematics (minimum grade B) required if not taken at A or AS level.

International Baccalaureate: 35 points. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

Study Abroad

UK and EU students have the opportunity to take part in a study abroad exchange between Stages 2 and 3 at one of our partner universities in Europe.

Careers

The specialist knowledge and skills gained during this degree programme prepare you for roles in a diverse range of popular career destinations in the food and retailing sector. The wide range of business knowledge and transferable skills you develop opens the door to many careers in the land-based and agri-food business sectors.

For example, some of our graduates progress to careers in finance, investment banking, human resources and management in businesses such as consultancy, hospitality and logistics. Others choose to work in marketing and communications, using the skills they have developed through business simulations and marketing modules during the degree.

Our recent graduates have been recruited into a number of prestigious national and multinational companies such as Andersen Consulting, KPMG, Accenture, BT, P&G, Unilever, Marks & Spencer, Sainsbury's, Morrisons and Tesco, many of which specifically target Newcastle University during recruitment campaigns.

You will receive bespoke careers support throughout your degree, which includes help to write an outstanding CV. You will also be supported to find internships and placements in companies where you can gain practical experience and improve your employability.

Agri-Business Management

BSc Honours | N280 | 3 or 4 years

This is a highly practical 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 including study visits to the University's own farms.

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 topics is available in the School, covering topics such as: farm management; managerial economics; agricultural marketing; livestock production and UK arable crops. You may also choose modules outside the School.

Work placement (optional): You may spend the year between Stages 2 and 3 studying abroad on a work placement in the UK or abroad. Students have completed placements with firms such as Sainsbury's, Tesco, Aldi, Marks & Spencer, United Biscuits, Masterfoods, Waitrose, IBM, Unilever, L'Oreal, John Deere, and HSBC, as well as with smaller companies.

Stage 3: You continue to study core modules in food markets and marketing, food policy, and advanced agri-business, which includes a challenging business simulation. You can tailor the degree to your career plans as up to half of your credits can be selected from optional modules. You can choose from topics relating to 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; the impact of the recession on the diet of older people; feasibility studies for renewable energy projects, and consumer buying trends and the rise of online food shopping.

Agriculture

Newcastle has been a leader in agricultural education since 1891. We own and manage two commercial farms to support our teaching programmes and work closely with the farming industry at local and national level to make sure that our degrees deliver the most relevant skills and knowledge. This produces graduates who can respond to the challenges facing the agricultural sector, from Common Agricultural Policy reform to climate change and feeding an increasing world population. All this at a world-class university, in one of the UK's favourite cities.

- ▶ **Study a broad curriculum** – choose modules from across our broad subject expertise, including biology, soil science, animal science, agri-business, nutrition, management, accounting and law
- ▶ **Explore the subject before specialising** – study a common curriculum in your first and second years to see where your interests lie, before specialising in your final year
- ▶ **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 and to engage with industry experts
- ▶ **Enjoy study visits to farms** – including the University farms and other commercial farms with diversified enterprises, processors and packers, as well as agricultural research institutes
- ▶ **Study at the cutting edge** – learn from expert staff engaged in researching real-world issues, like renewable energy
- ▶ **Learn professional software** – boost your employability by learning industry-specific software for accounting, budgeting, crop and livestock management, and statistical analysis

I chose this course because it is one of the best degrees in agriculture available, and I loved the city and the University when I came to look round. We're a close group on the course and it means you can form a good relationship with staff, helping us get the best out of the degree.

Degrees	Page
Agriculture BSc Honours	61
Agriculture with Agronomy BSc Honours	62
Agriculture with Animal Production Science BSc Honours	62
Agriculture with Farm Business Management BSc Honours	62
You may also be interested in...	
Agri-Business Management	
Animal Science	
Biology and Zoology	
Countryside Management	
Environmental and Rural Studies	
Nutrition and Food	

See page 232 for a full list of degrees by subject.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All Agriculture BSc Honours

A levels: ABB–BBB excluding General Studies. A science A level is preferred. GCSE Biology and Chemistry (or Dual Award Science) at grade C required if not offered at A or AS level.

International Baccalaureate: 30–32 points with Chemistry and/or Biology at Higher Level. Chemistry and/or Biology should be offered at Standard Level if not offered at Higher Level.

Additional information: Evidence of relevant experience of agriculture is useful.

Stage 2 Direct Entry

Direct entry into Stage 2 may be offered to students who have completed a Newcastle University-accredited foundation programme with Northumberland College – see page 51.

League Table Ranking

We are ranked in the top 5 UK universities for Agriculture and Forestry in *The Times/Sunday Times University Guide 2016* and *The Complete University Guide 2016*. Agriculture also ranks in the top 150 universities in the world in the *QS World University Rankings by Subject 2015*.

Careers

Our graduates are highly regarded in the world of agriculture and related industries. So you'll have a wide choice of careers open to you. Many are employed in farm management, whilst others use the breadth of skills and experience that they develop at Newcastle to follow a range of opportunities in the service and supply industries.

Many of our graduates go into practical farm management or work as advisers in management, agronomy or livestock production. Building on their background in farm business and estate management, some of our graduates join agricultural consultants or go on to gain qualifications in land agency or accountancy. Others work in surveying, marketing, journalism, retail and teaching.

Recent graduates have been employed by a number of prestigious national and multinational companies such as Velcourt, Sentry Farming, Bidwells, Andersons, Agrovista, GrowHow, and Syngenta.

Many of these employ our graduates in senior management positions and specifically target Newcastle University agriculture students during recruitment campaigns.

Flexible Degree Structure

We offer three specialist agriculture degrees – in 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 all students 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.

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 soil management, crop and 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 second 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, page 61).

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 subject of your choice.

Agriculture with Animal Production Science
BSc Honours | D422 | 3 years

Animal production science is no longer simply concerned with maximising animal performance. It also has a wider social responsibility to guarantee the integrity of the food we eat. This requires graduates with knowledge in 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, page 61).

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 64) 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, page 61).

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.

Animal Science

Animal Science at Newcastle provides an in-depth study of how animals behave and function. You will study a wide range of subjects that reflects the whole life of an animal, from microbiology and biochemistry, to animal behaviour, reproduction and nutrition. The scientific study of animals is brought to life through regular visits to local animal centres including our two University farms. You also have career-enhancing work placement opportunities and the chance to study and learn alongside staff in the Animal Science research group who are internationally recognised for their research, in particular the assessment and improvement of animal welfare.

- ▶ **Study at the cutting edge** – your teaching is shaped by the discoveries of the University's specialist Animal Science research group, so you'll graduate with the latest knowledge in animal science and the skills necessary to take up a career in the animal sector
- ▶ **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
- ▶ **Boost your CV with a work placement** – there are opportunities with our partner animal centres and other industry contacts, to develop your practical animal experience during the summer vacations
- ▶ **Enhance your employability** – we'll help you develop skills that appeal to all employers, including via a final-year group project to organise a scientific conference on animal health
- ▶ **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 or welfare assessor

Degrees	Page
Animal Science BSc Honours	64
You may also be interested in...	
Agriculture	
Biology and Zoology	
Environmental and Rural Studies	
Marine Sciences	
Psychology	

See page 232 for a full list of degrees by subject.

I like that you cover a broad range of different subjects from science to welfare. I also like that as well as essays there is lab work, which can be stimulating and help you to develop new skills.



Caitlin
Animal Science BSc Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Animal Science BSc Honours

A levels: ABB–BBB including Biology and another science subject from: Chemistry, Mathematics, Geography, Physics, PE, Psychology. General Studies excluded. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. Chemistry is preferred at A/AS level but not essential. GCSE Mathematics (minimum grade B) required if not offered at A/AS level.

International Baccalaureate: 32–35 points 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.

Stage 2 Direct Entry

Direct entry on to Stage 2 of our Animal Science programmes may be offered to students who have completed a Newcastle University-accredited foundation programme with Northumberland College – see page 51.

Careers

Your Animal Science degree provides an excellent basis for employment in many different areas of animal science and related agricultural and environmental sectors.

For example, in: animal welfare, as an RSPCA inspector or farm assurance assessor; animal health, as a research scientist working in product development, or an 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.

The knowledge and skills you acquire are also valued in a range of other careers including teaching, marketing, management, the media, finance, law, the armed forces, or the police force.

Animal Science

BSc Honours | C305 | 3 years

This degree focuses on the underlying scientific principles that govern how animals behave and function. We place a particular emphasis on the scientific study of animals, developing your in-depth knowledge as well as practical skills, in areas such as behaviour observation 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 the uses of domesticated animals in society for sport, companionship and as part of sustainable food chains.

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, or study topics that apply to both groups of animals.

Stage 3: Teaching in the final year draws on the latest scientific discoveries about how animals function, and what affects their growth, health, welfare and production. You will be encouraged to understand and interpret data from the latest scientific studies being undertaken around the world.

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

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

Archaeology

From bones to burials, artefacts to artwork, pottery to people, and streets to cities, archaeologists use a huge range of sources and methods to build a picture of past societies. Study at Newcastle and you will see the past come to life around you in the historically rich city and region on your doorstep. Hold history in your hands as you explore the world-class treasures from Ancient Greece and Rome in the University-led Great North Museum. Share in the excitement of discovery by taking part in excavation projects in the UK and abroad, led by our expert staff.

- ▶ **Make the region your classroom** – enjoy one of the largest concentrations of heritage sites and historic landscapes in the world on your doorstep, including Hadrian's Wall, Northumberland National Park, and the city of Newcastle itself
- ▶ **Enjoy guaranteed fieldwork** – we'll give you four weeks' fieldwork experience in your first two years, equipping you with skills in surveying, excavating and analysing archaeological sites
- ▶ **Learn in specialist facilities** – including our dedicated archaeology laboratory with equipment for artefact analysis and permanent collections including human remains, animal bones, metallurgy, Roman pottery and our Victorian household collection
- ▶ **Develop practical skills** – practise artefact handling using our teaching collections and those in the acclaimed Great North Museum on campus
- ▶ **Enjoy choice and flexibility** – our wide-ranging degrees let you study sites and finds from prehistory right up to the present day
- ▶ **Stand out from the crowd** – our close links with local heritage organisations provide opportunities for volunteering and research experience

Degrees	Page
Archaeology BA Honours	67
Ancient History and Archaeology BA Honours	67
History and Archaeology BA Honours	67
You may also be interested in...	
Classics and Ancient History	
Combined Honours (Archaeology, plus up to two other subjects)	
History	

See page 232 for a full list of degrees by subject.

The teaching has been outstanding on the course. History and Archaeology at Newcastle provides an incredibly well-rounded degree. Teaching for archaeology is research led and there are lots of opportunities to get involved in that research.



Elliot

History and Archaeology BA Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Archaeology BA Honours

A levels: ABB–BBB. General Studies accepted.

International Baccalaureate: A minimum of 32 points with three subjects at Grade 5 or above at Higher Level.

Ancient History and Archaeology BA Honours

A levels: ABB. General Studies accepted.

International Baccalaureate: A minimum of 32 points with three subjects at Grade 5 or above at Higher Level.

History and Archaeology BA Honours

A levels: ABB usually including History (AS level History required if not offered at A level). General Studies accepted.

International Baccalaureate: A minimum of 32 points. History required at Higher Level grade 6 or above.

League Table Ranking

Archaeology at Newcastle achieved a very impressive overall satisfaction score of 98 per cent in the *National Student Survey 2015*, ranking us 6th in the UK.

Study Abroad

UK and EU students have the opportunity to broaden their academic experience by taking part in a study abroad exchange.

Careers

Many of our graduates progress to a career in the heritage sector thanks to the high level of subject knowledge and technical skills they develop during their degree. Some work as professional archaeologists or historians with organisations such as English Heritage, museums, and in local authority planning offices.

Your degree also helps you develop transferable skills that will appeal to a wide range of employers. For example, our graduates excel at problem solving, adaptability and teamwork, and are articulate, literate and analytical. You will also be experienced in library-based and online research, and have skills in data analysis, presentation and communication.

As a result, our graduates find work in a variety of industries including publishing, broadcasting, public relations, finance, marketing, management and teaching.

Many of our students and graduates volunteer in museums or on excavations to increase their practical experience before taking up permanent employment. Newcastle has a network of museum and heritage sites that can provide voluntary experience whilst you are here.

Fieldwork

Fieldwork is an integral part of our archaeology 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. At Newcastle University, we offer you:

- a minimum of four weeks' fieldwork, undertaken in the summer vacations at the end of Stages 1 and 2
- one guaranteed place on a University-run fieldwork project for every student
- tuition from professional archaeologists in vocational skills such as: surveying and excavation techniques; and recording and analysing archaeological sites, landscapes, buildings and objects
- 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 also available for Years 12 and 13 students on some of our in-house excavation projects. Contact us to find out more.

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 of 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 osteoarchaeology (the study of human remains), 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 basic theories, methods and practical skills used in archaeology. At the end of Stage 1 you complete at least two weeks of 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. 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 a range of optional modules. These cover areas such as: Byzantine archaeology; later Mediterranean prehistory; the Persian Empire, and the fall of the Roman Republic.

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 and a further two weeks at the end of Stage 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

With a constantly evolving city on your doorstep, Newcastle provides the ultimate case study for architecture students. 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. This makes Newcastle an ideal place to begin your architectural training, as well as being a fantastic place to be a student.

- ▶ **Fast track your career** – our Architecture BA Honours degree offers a professionally accredited route to qualification as a registered architect
- ▶ **Find your own design style** – enjoy the freedom to explore your individual design ideas and develop your own distinct approach
- ▶ **Develop professional skills in fantastic facilities** –
 - design studios accessible 24/7, with CAD facilities and drawing boards
 - fully staffed model-making workshop with a range of cutting-edge machinery including three powerful laser cutters, CNC routers, ZCorp and Makerbot 3D printers
- ▶ **Visit key buildings** – choose UK and European field trips to experience architecture in different places
- ▶ **Learn from the professionals** – benefit from tutors from professional practice and lectures from current practitioners
- ▶ **Enjoy a breadth of expertise** – we are one of the few academic schools in the UK focusing exclusively on the built environment
- ▶ **Make a difference** – there are opportunities to work on real community projects both in the UK and Africa

Degrees	Page
Architecture BA Honours	69
Architecture and Urban Planning BA Honours	70
Graduate Certificate in Architectural Practice	70
Master of Architecture MArch	70
Diploma in Architectural Practice and Management	70
You may also be interested in...	
Civil Engineering	
Fine Art	
Geography	
Urban Planning	

See page 232 for a full list of degrees by subject.

I chose Newcastle mostly because of the city and the people here. Since I was studying at INTO Newcastle I was already familiar with the city and really liked living here. This city has given me nice memories and I am really happy to be here for the rest of my studies.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Architecture BA Honours

A levels: AAA. All candidates will be required to submit a portfolio for review as part of the selection process. GCSE grade B in Mathematics and English required if not taken at a higher level.

International Baccalaureate: A minimum of 36 points. All candidates will be required to submit a portfolio for review as part of the selection process. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

Architecture and Urban Planning BA Honours

A levels: ABB.

International Baccalaureate: A minimum of 32 points with three subjects at Grade 5 or above at Higher Level.

League Table Ranking

Newcastle is ranked in the top 10 in the UK for Architecture in *The Times/Sunday Times University Guide 2015* and *The Complete University Guide 2016*. Architecture at Newcastle ranks in the top 100 universities in the world in the *QS World University Rankings by Subject 2015*.

Professional Accreditation

Our Architecture BA Honours degree is professionally accredited and prescribed by the Royal Institute of British Architects (RIBA) and the Architects Registration Board (ARB).

Careers

Our Architecture BA Honours degree is your first step towards qualification as a professional architect (see page 70).

Our Architecture and Urban Planning BA Honours degree equips you to follow a number of career paths including consultancy, education, development, property development, sustainability and surveying.

Architectural education at Newcastle places a strong emphasis on developing your ability to visualise concepts and to translate your ideas in different forms to a variety of audiences.

These skills have proved very attractive to employers in the creative industries and many of our former students have gone on to careers in television, film, advertising and other design-based professions.

Transferable skills including numeracy, interpersonal skills, teamworking, initiative, decision-making and computer literacy are an integral part of our degrees so you'll be in a strong position to obtain employment in numerous fields such as: teaching; law; the creative industries; property development; construction management; planning; urban design; and landscape architecture.

Architecture

BA Honours | K100 | 3 years |

This design-based degree provides exemption from the RIBA Part I 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 complexity as the course progresses. We encourage you to develop your own design style, while providing you with the knowledge to understand the immediate and wider implications of your design decisions.

Stage 1: This Stage provides a varied introduction to architecture, characterised by numerous workshops, visits and hands-on activities. Design-related issues such as scale, function, materiality and the construction of space are explored in a studio environment using a wide range of media and output. Non-design modules including architectural theory, history and technology are taught through lectures, seminars and group work – much of which is also integrated into the design teaching.

Stage 2: A challenging set of studio-based design projects encourages you to take the next steps in your development. The scale of projects, and level of care and attention to detail required, increases from first year as you undertake a series of increasingly complex briefs exploring dwelling, community and cultural spaces. You are encouraged to assimilate knowledge and understanding of the thematic areas of the syllabus, and to demonstrate the expression of these in your architectural design output.

▶ Continued overleaf.

Stage 3: You select from a wide range of diverse year-long studio projects, each of which hosts a variety of tailored activities, including a European residential field trip. Studio projects commence with a 'primer' project that serves to set the themes and establish the agenda for the second and longer (graduation) project. This comprises a more complex and comprehensive design problem that allows you to celebrate and integrate your individual skills and learning from across the three-year 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 II 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 III 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 architectural approach aims to encourage people to actively participate in the design of their environment. We use practical case studies, historical examples, theoretical ideas and a live community project to introduce these new ideas about how architecture and cities can be developed and the planning processes involved.

Stage 1: We introduce you to the design process through a series of study visits and design projects in our well-equipped design studio, which gradually develops architectural thinking, skills and knowledge. We also introduce topics such as alternative practice, architectural history and the current planning process.

Stage 2: You continue to study a balance of architectural and planning topics that provide you with an understanding of the development of urban architecture and theories of alternative practice. You develop your research skills and select from a range of optional modules such as design and neighbourhood, and cities and poverty.

Stage 3: You will undertake a dissertation on a topic of your choice as well as participating in a live community project where you can see theory in practice. In addition, you will select optional modules from a wide range relating to cities, space and people.

Flexibility to transfer: We know that you may not yet be sure exactly where your architectural/planning interests lie. You can transfer to another degree within the School if you find your interests change. Upon successful completion of the required elements of Stage 1, and subject to grades, you may transfer to Stage 2 of our Architecture BA Honours degree, Urban Planning BA Honours degree, or Master of Planning MPlan degree. See online for more details.

Biology and Zoology

Biology and Zoology at Newcastle deals with all forms of life, ranging in scale from micro-organisms to mammals, and from biomolecules to the biosphere. We bring your learning to life in excellent facilities, including well-equipped laboratories on campus and a field station. We'll teach you the key laboratory and field techniques required by professional biologists and you will graduate with a portfolio of other skills valued by employers in science and beyond.

- ▶ **See where your interests lie** – study a shared first year for all degrees and transfer between our degrees if your interests change
- ▶ **Benefit from a broad curriculum** – including optional modules in agricultural science, marine biology and psychology
- ▶ **Develop practical skills** – gain skills valued by ecological and environmental employers through species identification field courses on fungi, plants, insects and birds
- ▶ **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 field course in Thailand (C100, C180 and C300)
- ▶ **Gain laboratory experience** – learn valuable skills in the application of molecular techniques with a week-long intensive lab workshop (C100, C1C7)
- ▶ **Boost your employability** – gain academic credit for work in biology off campus
- ▶ **Join a supportive School** – student mentors, small group teaching and our Biology Society will help you settle in and make friends

Degrees	Page
Biology	
BSc Honours	73
MBiol Honours	73
Biology (Cellular and Molecular Biology)	
BSc Honours	73
MBiol Honours	73
Biology (Ecology and Environmental Biology)	
BSc Honours	74
MBiol Honours	74
Biology and Psychology	
BSc Honours	75
Zoology	
BSc Honours	75
MBiol Honours	75
You may also be interested in...	
Agriculture	
Animal Science	
Biomedical and Biomolecular Sciences	
Environmental and Rural Studies	
Marine Sciences	
Nutrition and Food	
Psychology	

See page 232 for a full list of degrees by subject.



Find more information on our degrees
www.ncl.ac.uk/undergraduate

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All Biology BSc Honours degrees, pages 73–75, excluding Biology and Psychology

A levels: AAB–ABB 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 if not offered at A or AS level.

International Baccalaureate: 35 points 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.

All Biology MBiol Honours degrees, pages 73–75

A levels: AAA–AAB including Biology and normally another science-related subject from: Chemistry, Mathematics, Physics, Geography, and 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 if not offered at A or AS level.

International Baccalaureate: 35 points normally including Higher Level Biology at a grade 6 or above. Chemistry is preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at a standard Level grade 5 if not offered at Higher Level.

Biology and Psychology BSc Honours

A levels: AAB–ABB including Biology (at grade A) and preferably Chemistry, and excluding General Studies. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Mathematics grade B required if not offered at A or AS level.

International Baccalaureate: A minimum of 35 points with Biology grade 6 or above at Higher Level. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

League Table Ranking

The quality of the Biology study experience at Newcastle is recognised with a very impressive overall satisfaction score of 92 per cent in the *National Student Survey 2015*, ranking us 7th in the UK. Biological Sciences at Newcastle also ranks in the top 100 universities in the world in the *QS World University Rankings by Subject 2015*.

Professional Accreditation

At the time of publication (January 2016), our Biology and Psychology BSc Honours degree has been submitted for accreditation by the British Psychological Society (BPS). Please check our website for up-to-date information: www.ncl.ac.uk/undergraduate/degrees

Careers

The range of skills that you acquire as a Biology or Zoology student opens the door to a wide variety of career options.

Some of our graduates go on to postgraduate training, undertaking an MSc or PhD. Others go directly into jobs in research and development in biological industries, universities, the NHS and other organisations.

Our graduates have also pursued careers in sales and management in biological industries, environmental management, teaching, environmental education, and science communication.

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.

Shared First Year

All our students study the same modules for the first year (excluding those on CC18, which is a Joint Honours degree run by the School of Agriculture, Food and Rural Development). This ensures you gain an excellent foundation in biology and gives you time to explore our broad curriculum to find out exactly where your interests lie. Transfer between our degrees is possible until the end of Stage 1, if you find that your interests change during this time.

Biology

BSc Honours | C100 | 3 years

MBiol Honours | C103 | 4 years

This degree provides our broadest range of topics from across the full spectrum of biology, dealing with all forms of life, at all scales from the global to the molecular.

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 animals, plants and micro-organisms. You take modules in ecology, evolution, biochemistry, cell biology and genetics, and select one other topic in agricultural science, marine biology or psychology. You also take part in small group teaching through fortnightly tutorials with your personal tutor.

Stage 2: You start the year with species identification field courses, picking any two from fungi, plants, insects and birds. You continue to study a wide range of organisms through topics including: biodiversity, ecology and conservation; vertebrate biology; animal physiology; plant physiology; molecular biology and development; and microbiology. Optional modules are also available in: animal behaviour; population genetics; pollution science; biotechnology; and a short vocational work placement.

Stage 3: The final year begins with intensive practical training through either a lab workshop on the application of molecular techniques or a residential field course where you undertake a short group project on ecology or animal behaviour. Current locations include Kielder in Northumberland, Millport in the Firth of Clyde, and Crete. Our teaching at this level is strongly informed by the research we are doing and includes topics such as: genomics; animal ecophysiology; plant biology; plant–animal interactions; plant diseases; ecological modelling; biological control; behaviour; biodiversity science and management; biotechnology; and pollution biology. You will also have the opportunity to attend either a week-long mammal surveying skills module or our tropical field course in Thailand.

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

Stage 4 (MBiol only): You build on your knowledge and skills, working alongside our research active staff to explore advanced topics in biology. You undertake a significant research project working with an active research group in the School. You also have the opportunity to choose from specialist topics such as gene technology; wildlife disease management; applied bioinformatics; and GIS and remote sensing.

Biology (Cellular and Molecular Biology)

BSc Honours | C1C7 | 3 or 4 years 

MBiol Honours | C7C1 | 4 years

This degree covers plants, animals and micro-organisms, with a strong focus on biomolecules, organelles and cells, and how they all contribute to the function of organisms as a whole.

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

Stage 2: You focus on the study of organisms and their systems through topics including: molecular biology and development; cell biology; biotechnology; plant physiology; microbiology; animal physiology; and immunology. Optional modules are also available in: parasitology; population genetics; pollution science; food microbiology; and a short vocational work placement.

Work placement (optional) – BSc only:

You may spend time between Stages 2 and 3 working within a commercial company (such as MedImmune or GlaxoSmithKline) or a government laboratory (for example in the NHS or Environment Agency). This substantially improves your employability through workplace experience. You are supported by staff in the School of Biology and the Careers Service to arrange your own placement. This option extends your degree to four years.

 Continued overleaf.

Stage 3: At the start of Stage 3 you take a week-long, full-time laboratory course focusing on the practise of molecular techniques. Our teaching at this level is strongly informed by the research we are doing and includes topics such as: genomics; biotechnology; cell biology; plant diseases; plant biology; plant–animal interactions; animal ecophysiology; bioprospecting; drug discovery; and creativity and market research in science.

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

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

I highly recommend my degree at Newcastle to anyone interested in cellular and molecular biology, especially people who don't want to focus on just human biology. The degree covers everything from bacteria and fungi to plants and animals, and the lecturers are very knowledgeable in their fields.

Xarius, Biology (Cellular and Molecular Biology)
BSc Honours

Biology (Ecology and Environmental Biology)

BSc Honours | C180 | 3 years

MBiol Honours | C181 | 4 years

This degree covers plants, animals and micro-organisms, with a strong focus on whole organisms, their ecology and their role in the environment.

Stage 1: You study a common curriculum for the first year, developing a firm foundation in the subject and discovering where your interests lie (see Biology BSc Honours, page 73).

Stage 2: You start the year with species identification field courses, picking any two from fungi, plants, insects and birds. You continue to study a wide range of organisms through modules including: ecology; biodiversity, ecology and conservation; population genetics; plant physiology; pollution science; UK wildlife; and vertebrate biology. There are also optional modules available in: climate and environment change; animal physiology; and entomology; as well as a short vocational work placement.

Stage 3: At the start of Stage 3 you take a week-long residential field course where you undertake a short group project on ecology or animal behaviour. Current locations include Kielder in Northumberland, Millport in the Firth of Clyde, and Crete. Our teaching at this level is strongly informed by the research we are doing, and includes topics such as: ecosystems; biodiversity science and management; current issues in conservation; plant–animal interactions; pollution biology; animal ecophysiology; ecological modelling; biological control; plant biology; and evolution of behaviour. You also have the opportunity to attend either a week-long mammal surveying skills module or our tropical field course in Thailand.

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

Stage 4 (MBiol only): You build on your knowledge and skills, working alongside our research active staff to explore advanced topics in biology. You undertake a significant research project working with an active research group in the School. You also have the opportunity to choose from specialist topics such as biodiversity and wildlife; population dynamics and conflict management; wildlife disease and epidemiology; biodiversity conservation; and ecosystem management.

Biology and Psychology

BSc Honours | CC18 | 3 years

This degree is part of our Joint Honours in Science scheme. You'll be based in the School of Agriculture, Food and Rural Development but receive expert teaching from staff in the School of Biology and the School of Psychology. 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 and fieldwork, taking part in experiments, running your own and analysing the results.

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 visual perception, social psychology and cognition.

At Stage 3 you have increasing freedom to tailor your study to areas that interest you. You can develop your own project topic or focus on career development. In biology, you choose from topics such as: genomics; evolution and behaviour; 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.

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 for the first year, developing a firm foundation in the subject, putting animals in context and discovering where your interests lie (see Biology BSc Honours, page 73).

Stage 2: You start the year with species identification courses focusing on birds and insects. Your study of animals becomes more specialised, with modules such as: animal behaviour and physiology; entomology; biodiversity, ecology and conservation biology; and vertebrate biology. There are also optional modules available in: animal parasitology; population genetics; zoo animal science and management; UK wildlife; biological psychology; and a short vocational work placement.

Stage 3: At the start of Stage 3 you take a week-long residential field course where you undertake a short group project on animal behaviour or ecology. Current locations include Kielder in Northumberland, Millport in the Firth of Clyde, and Crete. Our teaching at this level is strongly informed by the research we are doing and includes topics such as: animal behaviour (mechanisms and evolution); current issues in conservation; biodiversity science and management; current zoology; biological control; animal ecophysiology; ecological modelling; plant–animal interactions; ecology; and companion animal behaviour. You will also have the opportunity to attend either a week-long mammal-surveying skills module or our tropical field course in Thailand.

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

Stage 4 (MBiol only): You build on your knowledge and skills, working alongside our research-active staff to explore advanced topics in zoology. You undertake a significant research project working with an active research group in the School. You also have the opportunity to choose from specialist topics such as biological study of behaviour; biodiversity and wildlife management; animal welfare science; population dynamics and conflict management; and wildlife disease and epidemiology.



Biomedical and Biomolecular Sciences

New discoveries in biomedical and biomolecular sciences provide us with the prospect of finding new ways to prevent and treat the wide range of diseases that affect humankind. Newcastle is a designated Centre of Excellence for biomedical research, giving you the chance to study the very latest ideas in human health and disease. You can also make a direct contribution to world-leading work through opportunities with our research institutes.

- ▶ **Study at a National Centre of Excellence** – research conducted in our acclaimed institutes is ranked amongst the top 10 in the UK. These research fields cover: ageing; cell and molecular biosciences; cellular medicine; health and society; genetic medicine; cancer research; neurosciences; stem cells; and regenerative medicine
- ▶ **Learn from international experts** – as well as conducting world-leading research, our staff inform and provide students with the highest level of research-informed teaching. This means you'll graduate with cutting-edge knowledge in human health and disease
- ▶ **Boost your employability with work experience** – opportunities include paid laboratory assistant posts in our research labs, vacation studentships, industrial placements and international exchanges. Financial support is available to assist students undertaking work placements
- ▶ **Learn in specialist teaching and research facilities** – including four specialist practical laboratories, an extensive medical sciences library and dedicated computer clusters
- ▶ **Transfer to Medicine or Dentistry** – apply to transfer to our Medicine or Dentistry degrees after the first year (on a competitive basis)

Degrees	Page
Biochemistry BSc Honours	79
Biochemistry Integrated Master's MSci Honours	79
Biomedical Genetics BSc Honours	79
Biomedical Genetics Integrated Master's MSci Honours	79
Biomedical Sciences BSc Honours	80
Biomedical Sciences with Industrial Placement Year BSc Honours	80
Biomedical Sciences Integrated Master's MSci Honours	80
Medical Science (Deferred Choice) BSc Honours	80
Pharmacology BSc Honours	80
Physiological Sciences BSc Honours	81
Sport and Exercise Science BSc Honours	81
You may also be interested in...	
Biology and Zoology	
Chemistry	
Dentistry	
Medicine	
Nutrition and Food	
Psychology	

See page 232 for a full list of degrees by subject.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All Biomedical and Biomolecular Sciences degrees (excluding Biomedical Sciences with Industrial Placement Year and Sport and Exercise Science), pages 79–81

A levels: AAA–AAB including Biology. Chemistry is required at AS level (minimum grade B) if not offered at A level. For Biology, Chemistry and Physics A level, we require a pass in the practical element. General Studies, Use of Mathematics, World Development, Communication and Culture and Critical Thinking not accepted. GCSE Mathematics and English Language required (minimum grade B) if not offered at A or AS level.

International Baccalaureate: 34–35 points with Biology and Chemistry 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.

Biomedical Sciences with Industrial Placement Year BSc Honours

A levels: AAA including Biology. Chemistry is required at AS level (minimum grade A) if not offered at A level. For Biology, Chemistry and Physics A level, we require a pass in the practical element. General Studies, Use of Mathematics, World Development, Communication and Culture and Critical Thinking not accepted. GCSE Mathematics and English Language required (minimum grade B) if not offered at A or AS level.

International Baccalaureate: 37 points with Biology and Chemistry 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.

Sport and Exercise Science BSc Honours

A levels: AAA–AAB including at least one from Mathematics, Physics, 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 and Critical Thinking not accepted. Minimum grade B in GCSE Mathematics and English Language required.

International Baccalaureate: 34–35 points 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.

League Table Ranking

We are a National Centre of Excellence in biomedical research. We also have an overall student satisfaction score of 91 per cent in the *National Student Survey 2015*.

Transfer to Medicine or Dentistry

Any student registered on a biomedical or biomolecular sciences degree at Newcastle may apply to transfer to the first year of our Medicine (A100) or Dentistry (A206) degree at the end of their first year. Both schemes:

- are competitive with a limited number of places available
- are 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/mbbs/admissions/biomedical.htm

There is also a graduate entry route into Medicine available at Newcastle University (see page 179).

Work Experience

We encourage you to spend at least four weeks of your summer vacation after your second year on work experience. We provide a number of opportunities to help you achieve this:

- 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)
- help and advice from our award-winning Careers Service

Some students choose to take a year out between their second and third years to gain more extensive work experience.

Study Abroad

UK and EU students may gain an international perspective on their subject by taking part in a study abroad exchange, either in Europe through Erasmus, or in Singapore or Australia through our non-EU exchange scheme.



Find more information on our degrees
www.ncl.ac.uk/undergraduate

Careers

There is a great demand for graduates in the biomedical and biomolecular sciences within the health services and industry, leading or working in research teams. Industries employing bioscientists for research and development include: pharmaceuticals; biotechnology; chemical; cosmetics and toiletries; and food and drink.

You could undertake medical, veterinary and agricultural research in universities and research institutes. Hospital and public health laboratories also employ a large number of bioscientists.

Many of our graduates take an MSc or PhD before embarking on permanent employment. Also, each year a number of our students use our degrees as a route for graduate entry into medicine or dentistry.

Apart from laboratory work, there are many other ways to use your degree. Some of our graduates choose to enter the legal side of the subject, using their scientific knowledge to advise on patenting, whilst others opt for careers such as scientific journalism. Our graduates also embark on careers unrelated to the biomedical sciences, in management, accountancy and IT, for example.

What You Will Study

We divide our degrees into Stages (one academic year) with two semesters in each Stage. We have also designed our degrees so that all of our students, regardless of which degree you apply for, study the same core modules at the start of their degree (excluding Exercise Biomedicine, see page 80).

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. It also means you are able to transfer to a different degree if you find your interests change during this time. Our degrees are divided into two Phases and you can transfer between any of our degrees at the end of Phase 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. It culminates in a final-year research semester for BSc students 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
- a project with a local school or college
- an IT-based project

We have tailor-made a range of optional modules for you to enhance your employability skills 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

Integrated Masters' (MSci) degrees: Our Integrated Masters' (MSci) degrees are designed to give students 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. During the third year you will undertake the BSc programme research module Experimental Design and the Process of Research before completing the degree with a year-long research project in Stage 4.

Go to www.ncl.ac.uk/biomed/study and click on any of our degrees to find out more about what you will study, including 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 to humans. You also 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. This is why graduates with expertise in biochemistry are increasingly in demand.

You explore recent advances in the field of biochemistry through topics such as: advanced protein analysis; biochemistry of chronic diseases; the molecular basis of cancer; protein–DNA interactions; structural and molecular biology in biotechnology; plant and animal biotechnology; and genetic disease and development.

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

I particularly enjoyed the practical side where I put what I had learnt into practice. In my third year I took on a research project for 12 weeks, where I was based in a laboratory and had to design experiments and use my knowledge I had gained over the past two years to discover what unknown sample protein was in my test tube. This was very interesting!

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 control development, and how mutations and changes can lead to a wide range of diseases.

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

Some examples of the final-year research projects studied 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 | 

With Industrial Placement Year

BSc Honours | B942 | 4 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 subjects such as anatomy, biochemistry, genetics, immunology, microbiology, neuroscience, pharmacology and physiology. You'll graduate with an understanding of the functioning of the human body in health and disease, and the scientific, experimental and critical skills valued in many graduate careers. This multidisciplinary approach helps us understand disease processes and find new treatments for diseases such as cancer, Alzheimer's disease and TB.

During the subject-specific stage of the biomedical science programme, you will learn about: human anatomy; the nervous system and respiratory diseases; and clinical immunology and viral pathogens. You also choose modules offered by our research institutes, such as: chronic and nutritional-related disease; genetics of common diseases; cancer biology and therapy; diseases of the human nervous system; biology of ageing; and medical biotechnology.

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.

Students on our Industrial Placement degree (B942) spend a year in industry between Stages 2 and 3, gaining valuable work experience in the life science commercial sector. Placement examples include: research and development; clinical trial work; quality and assurance; marketing; and regulatory affairs.

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 involves the study of the action of biologically active components (drugs) on the body and vice versa. It is thanks to pharmacologists that you can take an aspirin when you get a headache or have an anesthetic 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, as well as the mechanisms of toxicity associated with their use. It provides you with a sound knowledge of pharmacology as well as the practical and core skills necessary for employment after graduation.

Specialist pharmacology topics enable you to develop your knowledge and understanding of drug disposition. We introduce you to the drugs that affect major systems of the body, including the central nervous and cardiovascular systems.

You also study topics concentrating on the most recent advances in pharmacology, with particular emphasis on experimental techniques. Topics include: clinical pharmacology and drug development; carcinogenesis and anti-cancer drugs; pharmacogenetics; neuropharmacology; toxicology; and pharmacological techniques.

Examples of Pharmacology final-year research projects include: drug screening using hepatocytes derived from pancreatic tissue; hepatic toxicity following self-administered constituents of e-cigarettes in rats; and HLA and other immune-related genotypes and risk of drug-induced liver injury.

Physiological Sciences

BSc Honours | B100 | 3 years | 

Physiological sciences is the study of how the human body functions in health and in diseases. The degree provides a thorough understanding of how cells, tissues and organs function and integrate to generate a healthy body. Physiology underpins many of the biomedical and clinical sciences. We place particular importance on introducing you to the most recent advances in the field of physiology from our research-active teaching staff.

The degree focuses learning on organs such as the heart, lungs and kidneys, as well as molecular, reproductive and developmental physiology.

You continue to study the most recent advances in physiology in your final year, covering areas such as the nervous system and gastrointestinal tract. Novel research projects undertaken by Physiological Sciences students include: how do lifestyle factors such as diet and exercise influence chronic inflammation; and ageing and identification of cardiovascular defects in transgenic mice.

I enjoyed the wide range of learning opportunities in my first year, ranging from laboratory practicals to seminars and lectures. They engage each student in their own unique way as well as encouraging independent learning.



Sport and Exercise Science

BSc Honours | 3 years

Subject to full University approval

This degree aims to equip students with a strong scientific foundation in the sport and exercise-related sciences and how these relate to human performance and health.

Based in our Faculty of Medical Sciences, the degree draws on our expertise in exercise physiology, nutrition, sport and health psychology, and movement science.

Stage 1 will provide you with foundation knowledge and skills in the key discipline areas of sport and exercise science, including anatomy, physiology, biomechanics, sports psychology and bioenergetics.

Stage 2 will build on the knowledge and skills obtained in Stage 1 and develop your understanding of the application of sport and exercise science to human performance and exercise behaviours.

Stage 3 provides you with a greater in-depth knowledge and understanding of the subject. There is a focus on research relating to sport and exercise science and you will undertake a research project, giving you the chance to study, in depth, a sport or exercise topic that interests you.

You will have the opportunity to undertake optional, vocational modules in line with your career aspirations. You may also choose to take a work placement in the summer vacation leading into your final year to help you hone your career plans and boost your employability.

If you're interested in pursuing a sport alongside your studies, find out about our sports reputation and facilities on page 20.

As this is a new degree, the UCAS code was unavailable at the time of going to print (January 2016). Please visit www.ncl.ac.uk/undergraduate/degrees to find the full programme description and UCAS code for this degree.

Business Management

Business management degrees at Newcastle offer significant real-world business experience and outstanding work experience opportunities with globally recognised companies. We have strong links with companies such as IBM, Disney, Nissan, Microsoft, L'Oréal and Siemens. Combined with our academically rigorous curriculum, dedicated careers support and business engagement activities, we provide you with unrivalled opportunities to develop knowledge, expertise and contacts that will enable you to excel in your future career.

- ▶ **Enjoy modern teaching and learning facilities** – study in our £50 million Business School building in the heart of Newcastle's business district
- ▶ **Prepare for a successful career** – our degrees are aimed at future business leaders. Develop skills for a wide range of careers including consultancy, media, manufacturing, retail, finance and HR
- ▶ **Overcome business challenges** – engage with real-world issues and organisations and develop vital management skills
- ▶ **Learn from the experts** – we have a long history of innovative research, knowledge exchange and teaching. Enjoy research-led teaching from leading academic experts as well as guest speakers from business
- ▶ **Boost your CV** – build a year-long work placement into your degree with the support of our dedicated Placement Officer
- ▶ **Enjoy career planning support** – including our dedicated Careers Adviser and annual Career Development Week
- ▶ **Gain exposure to employers** – prizes for outstanding students, sponsored by major firms and professional bodies, give you exposure to future employers

London campus

We also offer an exciting opportunity to study International Business Management at our new campus, close to London's financial district. Find out more on page 85.

Degrees	Page
Newcastle campus	
Business Management BA Honours	84
International Business Management BSc Honours	84
International Business Management with Placement BSc Honours	84
London campus	
International Business Management BSc Honours	85
International Business Management with Placement BSc Honours	85
You may also be interested in...	
Accounting and Finance	
Agri-Business Management	
Combined Honours (Business, plus up to two other subjects)	
Economics and Business Management	
Marketing	
Mathematics with Management	
Modern Languages and Business Studies	

See page 232 for a full list of degrees by subject.

I chose Newcastle for its university ranking – there's no point choosing a degree that will not be recognised and will not make you stand out from the pack! I enjoyed being taught by very professional, enthusiastic and culturally diverse lecturers, and the fact we had some autonomy in choosing the modules we wanted to study.

Ang, Business Management BA Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Business Management BA Honours*

A levels: AAB excluding General Studies. See online for further information on preferred subjects. GCSE Mathematics and English (minimum grade B) required if not taken at A or AS level.

International Baccalaureate: 35 points. Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level.

International Business Management BSc Honours*

International Business Management with Placement BSc Honours*

International Business Management BSc Honours (London campus)*

International Business Management with Placement BSc Honours (London campus)*

A levels: AAB. Any subject combinations accepted excluding General Studies. Minimum grade B in GCSE Mathematics and English if not offered at A or AS level. There are different pathways through the degree depending on students' language level and needs. See online for further information on specific requirements.

International Baccalaureate: 35 points. Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level. There are different pathways through the degree depending on students' language level and needs. See online for further information on specific requirements.

International students: For information about university preparation courses see page 49.

*See online for additional information about GCSE (or equivalent) requirements.

Professional Accreditation

Our Business Management BA Honours degree is professionally accredited by the Chartered Management Institute (CMI). Graduates benefit from guaranteed membership of the Institute on successful completion of the degree.

Work Placement

Students at both campuses can take an optional year-long commercial placement, which offers invaluable business experience.

Newcastle-based students benefit from 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. Current Newcastle University interns are mainly acting as retail managers, project managers and account managers. Many work within large multinational corporations, undertaking projects that include:

- assisting with the planning and co-ordination of fashion and beauty events, for example, London Fashion Week at L'Oréal
- managing the sales orders for a major supermarket chain at P&G
- working on a change management project at Unilever
- training to be a retail manager and looking after a section of the shop floor at John Lewis
- providing business and sales support to a National Account Manager at Warner Bros

Previous host companies also include: IBM, Disney, Nissan, Marks & Spencer, Accenture, Cummins, GSK and Microsoft.

International Business Management students at our London campus also have the option of spending a year on a work placement. With a third of global companies headquartered in London, this is an excellent opportunity to gain insight into how businesses operate internationally. The Newcastle University London Student Services team will help students organise their year in work.

Study Abroad

Newcastle-based students can study between Stages 2 and 3 at one of our partner universities in Europe through the Erasmus exchange scheme. We currently have partners in Denmark, Finland, France, Holland, Norway, Spain and Sweden.

DTUS Sponsorship

Our Business Management BA Honours degree (Newcastle) is approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

Careers

We provide an extensive range of opportunities to enable you to develop personal, employability and enterprise skills that give you a real edge in the employment market after you graduate.

The success of our graduates is reflected in the globally recognised companies within which a number have found employment, including: Ipsos Mori, L'Oréal, Accenture, Media Comm, Microsoft, Sainsbury's, Von Essen Hotels, Shell, and HSBC International.

The Careers Service works closely with the Business School to make sure that your employability is developed as a key part of your degree. The Careers Service runs skills-based workshops throughout the year and hosts many employer presentations on campus as well as job fairs and related events.

The Business School also hosts a Career Development Week every year, which is designed to help improve your employability skills, meet potential employers and explore possible careers.

Business Management

BA Honours | N200 | 3 or 4 years   

Our Business Management degree blends the academic study of management topics with an understanding of the strategic and operational context of businesses. We place a strong emphasis on gaining practical, real-world business experience, through the use of case study-led teaching and work experience opportunities with globally recognised companies. This builds your business awareness, as well as honing the practical skills you need to become highly employable and successful in a range of business environments and careers.

Stage 1: We introduce you 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; and quantitative techniques necessary for decision making.

Stage 2: We develop your understanding of effective leadership and management through core modules including: operations strategy and management; managing people in organisations; research skills; and understanding work and organisations. You also have a choice of topics including: interpreting company accounts; business enterprise; innovation and technology management; managing change; an innovative business game; career development; or foundation business Spanish.

Work placement/study abroad (optional):
See page 83 for more information.

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 including: international human resource management; understanding enterprise; electronic business; critical organisations studies; innovation and creativity; and management and organisation in popular culture.

International Business Management

BSc Honours | N121 | 3 years

With Placement

BSc Honours | N120 | 4 years  

Prosperous organisations throughout the world recognise the importance of operating in a global market, whilst adapting to the local cultural context.

This degree will develop your understanding of international business and provide you with the knowledge and skills to manage the challenges involved in operating across borders.

Designed for students who wish to pursue careers in international, multinational or global organisations and contexts, this degree will prepare you to excel in the world of international business.

Developing proficiency in a modern language is an integral part of the degree. The degree has three routes available:

- advanced English route (for non-native speakers)
- beginners' language route in either Chinese, French, German, or Spanish
- advanced language route in either French, German, or Spanish

Each language route is fundamentally the same but offers different language modules depending on your needs.

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; managing people and organisations; strategy for global markets; 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/study abroad: This is compulsory for students taking advanced French, German or Spanish; for all other students it is optional. 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. See page 83 for more information.

Stage 3: You study core 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. This will further develop your independent learning and research skills. Students who are non-native English speakers will study working intercultural settings.

International Business Management (London campus)

BSc Honours | N122 | 3 years 

With Placement

BSc Honours | N123 | 4 years  

Successful organisations throughout the world recognise the importance of operating in a global market, whilst adapting to the local cultural context. This degree develops your understanding of international business. It gives you the knowledge and skills to manage the challenges involved in operating across borders. You will be based at Newcastle University London, see page 24.

This degree is designed for students who wish to pursue careers in international, multinational or global organisations or contexts, and will take advantage of the campus location in London's financial district. You will extend your understanding of international business management from a global perspective in one of the world's best cities for business. 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; introduction to management and organisation; quantitative methods for international business management; 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; language and cross-cultural communication; operations management; and professional communication skills.

Work placement (N123): Between Stages 2 and 3, you have the opportunity to spend a full academic year on a work placement at an approved organisation. While on placement you complete two modules: international business management placement and reflective report.

Stage 3: You focus on the strategic aspects of international business management, covering: advanced global strategy; contemporary issues in international business management; international business diplomacy; and working in intercultural settings. You will then take a dissertation or research project on an international business management topic of your choice.

Chemical Engineering

Chemical engineers are responsible for the chemical and biochemical transformations behind thousands of everyday products, from the manufacture of medicines to freeze-drying food. We'll teach you the theory and practical application of chemical engineering, including how to use industrial apparatus in our very own pilot plant. You can also take advantage of our strong industry links with over 100 companies for work experience, guest lectures, plant visits and sponsorship opportunities. All this in a small and friendly School where you will enjoy a high level of interaction with teaching staff.

- ▶ **Gain an industry-recognised qualification** – our IChemE professionally accredited degrees meet high industry standards, meaning employers will recognise the quality of your degree (see opposite)
- ▶ **Fast-track your career** – choose an MEng degree to put yourself on the fast-track to Chartered Engineer status – one of the world's best recognised professional qualifications
- ▶ **Boost your CV with a work placement** – add a year-long paid industrial placement to your degree to gain valuable work experience. Choose our Chemical Engineering with Industry degree for an integrated placement as part of your degree
- ▶ **Enjoy flexibility and choice** – our degrees share the same early curriculum, meaning you have flexibility to transfer between our degrees should your interests change (see What You Will Study, page 88)
- ▶ **Enjoy state-of-the-art facilities** – get your career off to the best start by using our high-quality facilities and equipment, including an interactive video teaching system in our labs
- ▶ **Learn professional software** – get experience with industry-standard chemical engineering software in our two dedicated computing suites

Degrees	Page
Chemical Engineering BEng Honours	89
Chemical Engineering MEng Honours	89
Chemical Engineering with Bioprocess Engineering MEng Honours	89
Chemical Engineering with Industry MEng Honours	90
Chemical Engineering with Process Control MEng Honours	90
Chemical Engineering with Sustainable Engineering MEng Honours	90
You may also be interested in...	
Chemical Engineering with Foundation Year	
Chemistry	
Civil Engineering	
Electrical and Electronic Engineering	
Marine Technology	
Mechanical Engineering	

See page 232 for a full list of degrees by subject.

The lecturing staff have been fantastic and really supportive. The degree sets you up with the skills to become a successful engineer across a range of industries. The teaching quality is excellent and the lecturers are willing to help with any problems you might have.

Rebecca, Chemical Engineering MEng Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All Chemical Engineering MEng degrees, pages 89–90

A levels: AAA 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 in GCSE Physics or Dual Award Science required if Physics not offered at A level.

International Baccalaureate: 37 points 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.

All Chemical Engineering BEng Honours

A levels: AAA 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 in GCSE Physics or Dual Award Science required if Physics not offered at A level.

International Baccalaureate: 37 points 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.

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 50 for details.

Pre-Entry Mathematics Course

If you don't have the required mathematics qualifications for direct entry, you may be invited to take our Pre-Entry Mathematics Course. See page 50 for details.

League Table Ranking

At Newcastle you'll join a School of Chemical Engineering and Advanced Materials with a long-standing reputation for teaching quality and student support:

- Top 10 in the UK in *The Complete University Guide 2016*
- A 91 per cent overall student satisfaction score, ranking us in the top 10 in the *National Student Survey 2015*
- Chemical Engineering at Newcastle also ranks in the top 200 universities in the world in the *QS World University Rankings by Subject 2015*

Professional Accreditation

All our degrees are professionally accredited by the Institution of Chemical Engineers (IChemE), the Engineering Council 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, like an approved Master's degree.

Transfer from the BEng to one of our MEng degrees is possible. See What You Will Study, page 88.

Work Placement

On all of our degrees, you'll have the chance to gain work experience, developing valuable skills that will make you stand out in the graduate marketplace.

On our accredited Chemical Engineering with Industry degree (see page 90) you can take an assessed year in industry. This gives 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.

On our other degrees you can take a paid industry placement after your second year (BEng) or third year (MEng). This year is not assessed and does not count directly towards your final degree mark, but does give you valuable workplace experience and the chance to apply your skills. It extends the BEng degree to four years and an MEng to five years.

DTUS Sponsorship

Our chemical engineering degrees are approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

Study Abroad

With the agreement of the Degree Programme Director, UK and EU students can broaden their academic experience by taking part in a study abroad exchange. Due to our degrees being professionally accredited, the School will need to find an appropriate academic programme in the student's 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.

Singapore Study Option (International Students)

Working with the Singapore Institute of Technology, Newcastle University offers a full-time BEng Honours degree in Chemical Engineering in Singapore. www.ncl.ac.uk/singapore/study

Careers

Our graduates are targeted by prestigious and high-profile organisations. Employment sectors include: pharmaceuticals, chemicals, energy, oil and gas, water, the environment sector, biotechnology, and food and drink.

International opportunities are available for experienced graduates with an interest in working outside the UK. Examples of career paths of past graduates include: building and running plants in East Asia; operating water treatment processes in the Gulf; and developing catalysts in Chicago.

Chemical Engineering is a degree that is well respected in industry and commerce. The wide scope of the training and skills you receive in your degree is highly valued by many different organisations and opens up opportunities in careers ranging from groundbreaking research and consultancy to business and management.

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 School, 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 per cent average at the end of each Stage is required. For Chemical Engineering with Industry MEng Honours, 65 per cent is required.

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, whilst 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, opposite).

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.

I chose Newcastle University because it is one of the best universities for chemical engineering. Not only located in Newcastle, which is known to be a student city, but also a member of the Russell Group. Chemical engineering may sound difficult, but it is worth the hard work. Learning something new is always fun for me!

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, opposite).

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 88).

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 the School and Careers Service will provide 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 88).

In the third-year group plant design project you will 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 covering robust, digital, model-based and non-linear control. You also complete an individual design project and substantial research project.

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'll 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 88).

In the third-year group plant design project you will 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.

Chemistry

Chemistry at Newcastle offers you some of the highest-specification teaching laboratories in the country in which to begin your career in this exciting science. Learning from our research-active staff, you'll study at the cutting edge of this life-changing field and graduate with an industry-recognised, professionally accredited qualification. Enjoy the flexibility to study a degree that suits you: study chemistry by itself or combine it with medicinal chemistry for a degree highly valued in the pharmaceutical and medical fields. Boost your employability with a paid placement in industry or broaden your academic experience by studying in Europe, North America or Asia.

- ▶ **Gain an industry-recognised qualification** – all our degrees have met the Royal Society of Chemistry's accreditation requirements
- ▶ **Enjoy outstanding facilities** – learn in our state-of-the-art working environment with £3.9 million chemistry research laboratories, new teaching laboratories and specialist IT facilities
- ▶ **Boost your CV with an industrial placement** – spend a year gaining practical skills on a paid placement in the chemical industry
- ▶ **Get kitted out for your studies** – receive a starter pack worth about £200, including textbooks, calculator, lab coat, chemical drawing software and a molecular modelling kit
- ▶ **Gain research experience** – through a summer placement opportunity in the School of 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

The teaching quality on my course is good. I enjoy the practicals most in my course; the labs are a big step up from high school and the experiments are a lot more complicated.

Kahina, Chemistry with Industrial Training Year MChem Honours

Degrees	Page
Chemistry	
BSc Honours	94
MChem Honours	94
With Industrial Training Year BSc Honours	94
With Industrial Training Year MChem Honours	94
With Study Abroad MChem Honours	94
Chemistry with Medicinal Chemistry	
BSc Honours	94
MChem Honours	94
With Industrial Training Year BSc Honours	94
With Industrial Training Year MChem Honours	94
With Study Abroad MChem Honours	94
You may also be interested in...	
Biology and Zoology	
Biomedical and Biomolecular Sciences	
Chemical Engineering	
Dentistry	
Medicine	

See page 232 for a full list of degrees by subject.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All Chemistry and Medicinal Chemistry BSc Honours degrees, page 94

A levels: ABB 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 required if not offered at a higher level.

International Baccalaureate: 34 points including Higher Level Chemistry grade 6 or above. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

All Chemistry and Medicinal Chemistry MChem Honours degrees, page 94

A levels: AAB 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 required if not offered at a higher level.

International Baccalaureate: 35 points 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.

League Table Ranking

The quality of the Chemistry study experience at Newcastle is recognised with an overall student satisfaction score of 97 per cent in the *National Student Survey 2015*, ranking us 6th in the UK.

Royal Society of Chemistry Professional Accreditation

Our MChem degrees satisfy the Royal Society of Chemistry (RSC) requirements for professional accreditation.

Studying a professionally accredited degree satisfies the academic requirements for the award of Chartered Chemist (CChem) and leads, upon application, to full membership of the RSC on graduation.

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.

Our BSc degrees provide access to qualified membership of the RSC and form a basis for satisfying the academic requirements for the RSC's award of Chartered Chemist (CChem) through further study or continuing professional development.

Careers

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

Other key employment sectors include the food and drink industry, utilities and energy research, the health and medical sector, and research organisations and agencies.

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). A large number of our graduates follow such a career pattern, with both taught and research postgraduate degrees available at the University.

A small proportion of our graduates choose to enter very different career areas such as finance, marketing, sales and advertising, arts, design and sport, and social and welfare professions.

The industrial training year often plays a decisive role in choosing a career and provides an excellent opportunity to gain the practical skills and experience that employers value so highly.

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.

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 chemistry or medicinal chemistry topic. 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.

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

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, whilst furthering your knowledge of chemistry.

Industrial Training Year

Students on our degrees with Industrial Training Year spend a paid year in industry in the UK or abroad during the third year of their degree.

It is 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.

The School of Chemistry gives you extensive support to find a suitable placement. This includes helping to write your CV to send out to our extensive list of industrial contacts eg Akzo Nobel, AstraZeneca, BP, GlaxoSmithKline, Lubrizol and P&G, who have previously hosted our placement students.

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

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

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



Chemistry

BSc Honours | F100 | 3 years | 

MChem Honours | F103 | 4 years | 

With Industrial Training Year

BSc Honours | F102 | 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, page 93.

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.

Key transferable skills, aimed at developing graduate skills such as problem solving, teamworking, presentation and communication skills, 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 to make you more competitive in the job market after graduation. See Industrial Training Year, page 93.

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. In your fourth year you return to Newcastle for a final year of study. See Study Abroad, page 93.

Chemistry with Medicinal Chemistry

BSc Honours | F151 | 3 years | 

MChem Honours | F123 | 4 years | 

With Industrial Training Year

BSc Honours | F122 | 4 years |  

With Industrial Training Year

MChem Honours | F124 | 4 years |  

With Study Abroad

MChem Honours | F156 | 4 years |  

Subject to full University approval

All of our chemistry degrees share the same first year (Stage 1) and a high level of content in second year (Stage 2), providing you with a solid foundation in core chemistry topics. See What You Will Study, page 93.

In addition to providing a thorough understanding of organic, inorganic and physical chemistry, these degrees deal, in depth, with 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 to make you more competitive in the job market after graduation. See Industrial Training Year, page 93.

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. In your fourth year you return to Newcastle for a final year of study. See Study Abroad, page 93.

Civil Engineering

Civil engineers are creative problem solvers, responsible for the infrastructure that underpins our quality of life. Study at Newcastle and you will develop core civil engineering knowledge in areas such as water supply and sanitation, transportation and structures. You'll gain a new perspective on the world, including how society can prepare for, and meet, challenges such as climate change and population growth. Our degrees give you the flexibility and choice to undertake advanced studies in the aspect of civil engineering that interests you most. You can study abroad, spend a year in industry, and even complete a real engineering project overseas. Strong links with industry throughout your course mean you'll be well prepared for your future career.

- ▶ **Gain an industry-recognised qualification** – our professionally accredited degrees meet high industry standards, meaning employers will recognise the quality of your degree
- ▶ **Study a design-intensive degree** – you'll complete large sustainable engineering design projects at each Stage
- ▶ **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 as 'excellent' by professional accreditors, for structures, geotechnics, surveying, hydraulics, environmental engineering, and transport
- ▶ **Enjoy flexibility to pursue your own 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
- ▶ **Spend a year abroad** – gain an international perspective with a year studying abroad

Degrees	Page
Civil Engineering	
BEng Honours	97
MEng Honours	97
Civil and Structural Engineering	
BEng Honours	98
MEng Honours	98
Civil and Surveying Engineering	
BEng Honours	98
MEng Honours	98
You may also be interested in...	
Chemical Engineering	
Civil Engineering with Foundation Year	
Electrical and Electronic Engineering	
Marine Technology	
Mathematics and Statistics	
Mechanical Engineering	
Surveying and Mapping Science	

See page 232 for a full list of degrees by subject.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All degrees, pages 97–98

A levels: AAA 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) required if not offered at A or AS level.

International Baccalaureate: 37 points with Mathematics at Higher Level grade 6 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.

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 50 for details.

Pre-Entry Mathematics Course

If you don't have the required mathematics qualifications for direct entry, you may be invited to take our Pre-Entry Mathematics Course. See page 50 for details.

League Table Ranking

Civil and Structural Engineering at Newcastle is ranked:

- 2nd in the UK for research power (*Research Fortnight*)
- 90 per cent overall student satisfaction (*National Student Survey 2015*)
- World top 200 for Civil and Structural Engineering (*QS World University Rankings by Subject 2015*)

DTUS Sponsorship

Our civil engineering degrees are approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

Study Abroad

Civil Engineering MEng and Civil and Structural Engineering MEng UK and EU students can broaden their academic experience by taking part in an optional study abroad exchange in a range of countries including Hong Kong, Sweden, Singapore and the USA as a fully accredited part of their degree. Our study abroad options are taught in English so you don't need to know a second language.

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: the Institution of Civil Engineers; the Institution of Structural Engineers; the Chartered Institution of Highways and Transportation; and the Institute of Highway Engineers.

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

We offer two levels of accredited degree:

MEng Honours – Accredited CEng (full)

This degree is accredited as fully satisfying the educational base for a Chartered Engineer (CEng).

BEng Honours – Accredited CEng (partial)

This degree is accredited as fully satisfying the educational base for an Incorporated Engineer (IEng) and partially satisfying the educational base for 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 for further information and details of Further Learning programmes for CEng.

Our civil and surveying engineering degrees are relatively new. They are accredited by the Chartered Institution of Civil Engineering Surveyors (ICES) and will be going through the accreditation process with the JBM and 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.

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

Careers

Our civil engineering graduates are in high demand from industry and employment prospects are strong. Recent graduates have gone on to work for a range of leading organisations such as Atkins, Arup, Aecom, CH2M Hill, Mott MacDonald, MWH, Transport for London, and Balfour Beatty.

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

Although the majority of our graduates go on to engineering careers, our degrees will also equip you for careers in a wide variety of areas such as management, administration, banking, and insurance, with organisations such as HSBC and IBM. Some graduates take up commissions in the armed forces.

What You Will Study

Design, and more importantly designing sustainable solutions to infrastructure problems, is at the heart of Newcastle University Civil Engineering degree courses. In Years 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.

In addition 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 that you will use in your design projects
- **Environmental systems** explores our relationship with the environment around us, including water, land and air
- **Human and management systems** 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, and 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 | 

MEng Honours | H290 | 4 years |  

In Stages 1 and 2, you will study a broad range of modules from across all five of our study themes (see What You Will Study, left). These are designed to give you a firm foundation in core civil engineering knowledge and skills.

In Stage 3, MEng and BEng students from across all of our courses work alongside each other for the first half of the year undertaking 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.

 Continued overleaf.

In Stage 4, MEng students can choose to study one of four specialisms, each with its own specialist laboratory and 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, which 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 new field of intelligent transport
- **Water resources engineering** explores a variety of issues, such as groundwater, pollution studies, and the role of climate change in flooding

MEng students also carry out a research project in Stage 4. 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 | ✓

MEng Honours | H242 | 4 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.

In Stages 1 and 2, you will study a broad range of modules from across all five of our study themes (see What You Will Study, page 97). These give you a firm foundation in core civil engineering skills before you specialise in later Stages.

In 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.

In Stage 4, MEng students advance their 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 | ✓

MEng Honours | H292 | 4 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.

In 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 97). Specialist modules from the surveying theme include a residential field course mapping a Lake District valley, digital surveying techniques, and 3D laser scanning.

In Stage 3, your study becomes more specialised, with advanced study in surveying including coordinate 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.

In Stage 4, MEng students advance their knowledge and skills with specialist topics such as geographical information systems and applied surveying, and can choose additional study modules from a broad range of civil engineering topics.

Classics and Ancient History

Studying Classics and Ancient History at Newcastle allows you to explore the worlds of ancient Greece and Rome from a variety of perspectives but also to uncover their legacy in our culture and their impact on the way we think today. You will join a close-knit group of staff and students in the study of a timeless subject, brought to life by our historically rich location. This makes Newcastle an exceptional place to engage with the world of antiquity while developing skills for a broad range of careers.

- ▶ **Enjoy topics inspired by our research expertise** – including: Greek and Roman poetry; Greek and Roman history writing; ancient speeches; ancient 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 Persia
- ▶ **Develop professional research skills** – enjoy opportunities to develop your research skills including the Ancient History portfolio project and dissertation modules
- ▶ **Learn an ancient language from any level** – choose to study Greek or Latin with our ‘Language in Action’ classes, letting you engage in literary study of original Greek and Latin texts from beginners’ right up to advanced level. Enjoy a high level of interaction with teaching staff thanks to our small group teaching
- ▶ **See the classical world come to life** – enjoy extracurricular field trips, taking 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
- ▶ **Experience specialist facilities on campus** – explore our history in the University-led Great North Museum and benefit from the School’s own classical library collection

Degrees	Page
Ancient History BA Honours	100
Classical Studies BA Honours	100
Classical Studies and English BA Honours	101
Classics BA Honours	101
You may also be interested in...	
Ancient History and Archaeology	
Archaeology	
Combined Honours (Classics and Ancient History, plus up to two other subjects)	
History	

See page 232 for a full list of degrees by subject.

I think a particular draw that really makes Newcastle stand out is the teaching of Graeco-Roman music, which is offered in very few universities worldwide. We have an excellent student-lecturer ratio: not too small, but definitely not too large. Lecturers always treat you like equals and value your opinion.



Dominic
Classics BA Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Ancient History BA Honours Classical Studies BA Honours Classics BA Honours

A levels: AAB–ABB excluding General Studies.

International Baccalaureate: 32–35 points including three subjects at grade 5 or above at Higher Level.

Classical Studies and English BA Honours

A levels: AAB including English and excluding General Studies.

International Baccalaureate: A minimum of 35 points with English grade 6 at Higher Level.

League Table Ranking

Classics at Newcastle is highly regarded, achieving an impressive 93 per cent overall student satisfaction score in the *National Student Survey 2015*, ranking us 8th in the UK. We also rank in the top 10 UK universities for Classics and Ancient History in *The Times/Sunday Times University Guide 2016*.

Study Abroad

UK and EU students can take part in a study abroad exchange in Europe through the Erasmus scheme, particularly at the historic Italian University of Bologna.

Careers

You develop the ability to research and analyse different types of materials, including written documentation and statistics. You also learn to evaluate and interpret resources in order to formulate impartial and coherent arguments, which you can present competently through both the spoken and written word.

You'll be able to demonstrate your ability to work independently, manage your own workload, and work to strict deadlines. These abilities and attributes make for a very well-rounded individual with a balanced mix of practical, intellectual, theoretical and transferable skills that employers look for.

You might pursue a career linked directly to the subject, such as academia, teaching or the arts, or work in areas as varied as law, politics, local government, finance, tourism or marketing.

 Study abroad [see page 32]

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 special small group modules that introduce modern approaches to studying the Greek and Roman past. You choose your remaining modules from topics in Greek and Roman culture, Greek or Latin languages, archaeology or history.

Stage 2: You study historiography as well as key historical periods and optional cultural topics. You begin work on your portfolio – a project that gives you the chance to conduct research to a professional standard, 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 manifestations – literature, history, art, architecture, myth, religion, philosophy, science, medicine, and the classical tradition. You can combine this with the study of 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 also enjoy the University's outstanding collections at the Great North Museum.

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. Two specially designed Stage 2 modules train 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, as well as taking 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 combines study of the rich variety of texts written in English with study of the culture of the classical world, and explores the connections between the two. It also includes the opportunity to study Latin or Greek language at a variety of levels, including beginners'.

Stage 1: We introduce you to important texts and approaches to literature in English, along with 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: Central to Stages 2 and 3 are our specially designed independent study modules, in which 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 twentieth-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, while also having the opportunity to study a variety of aspects of the classical world. 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. Both Latin and Greek can be studied either from beginners' or advanced level to match your previous experience.

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, enabling a deeper 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: Alongside language modules in Greek and Latin at the appropriate level, you choose from options such as ancient history, art and architecture, philosophy, and literature in translation.

Stages 2 and 3: Continuing with language modules in Latin and Greek, you have the opportunity to 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, based on 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.



Find more information on our degrees
www.ncl.ac.uk/undergraduate

Combined Honours

Those who enjoy the challenge of studying and mastering more than one subject will find Combined Honours has plenty to offer. You have unrivalled flexibility to choose topics from a huge range of subjects, creating a unique pathway based on your own interests. The result is an intellectually demanding degree that lets you develop existing expertise or explore new areas of study, preparing you for careers in a wide variety of professions and equipping you with highly sought after interdisciplinary perspectives.

- ▶ **Choose from over 20 subjects** – choose from more than 20 different subjects, without committing to your final choice until Stage 2. Try new subjects without previous experience
- ▶ **Create a degree to suit you** – choose complementary subjects or unusual subject combinations to reflect your particular interests
- ▶ **Learn a language** – language learning opportunities for both beginners and those with previous language experience
- ▶ **Boost your CV** – take specialist career and graduate development modules, which recognise and reward you for extracurricular roles and experience
- ▶ **Develop interdisciplinary skills** – we'll introduce you to interdisciplinary thinking and you can combine your subjects through interdisciplinary projects
- ▶ **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

Degrees	Page
BA Combined Honours	103

See page 232 for a full list of degrees by subject.

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
- interdisciplinarity – synthesising multiple perspectives

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Combined Honours BA Honours

A levels: AAB. Specific subjects and grades may be required depending on the combination to be studied. See Subjects Available, page 104.

International Baccalaureate: A minimum of 35 points including at least two subjects at Higher Level grade 6 or above and one subject at Higher Level grade 5 or above.

League Table Ranking

Combined Honours at Newcastle achieved an impressive 97 per cent overall student satisfaction score in the *National Student Survey 2015*, ranking us 1st in the UK.

Combined Honours offers flexibility that suits me just perfectly. I get to choose most of my modules which means that I study something that I really enjoy. One thing that I have always been grateful for being a Combined Honours student is that I am supported by the wonderful Combined Honours staff.



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 Subjects Available, page 104).

In Stage 1, you study two or three subjects in equal proportions. Students studying three subjects can continue with all three in their second and third years or focus on just two of them for the remainder of their degree. You must continue with at least two subjects.

From second year (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.

Subject Combinations

A few of the subject combinations possible through Combined Honours may already exist as a Joint Honours degree at Newcastle – see our A–Z Degree Index on page 226. We may advise you to transfer your application to one of these named joint degrees if that appears a better match to your subject interests.

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.

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, opposite.

Classics and Ancient History: Covers modules in ancient history, classical world culture, Greek and Latin, delivered by the School of History, Classics and Archaeology. No prior knowledge is required and all sources of Greek and Latin are studied in translation.

Education: Studying education you will critically 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: 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, opposite.

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, opposite.

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 twentieth 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 (opposite).

Media and Communication: A rich and diverse area exploring mass media, communication theory and practice, and culture. You study how information is created, managed, promoted, circulated and consumed across contemporary society in a range of cultural industries.

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 (right).

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 (right).

Study Abroad / Work Placement

UK and EU students 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.

This could be substituting one semester of study at Newcastle for one semester studying abroad, or by adding an extra year to study abroad between Stages 2 and 3 (see page 32). Students studying a language beyond Stage 1 must spend a year abroad.

Alternatively, UK and EU students have the opportunity to undertake a year-long work placement in the UK or abroad between Stages 2 and 3, regardless of subject combination (see page 40).

I thoroughly recommend my course. It's been fantastic both in the range of modules available and the flexibility it offers. I've been able to pick and choose modules to tailor the degree to my interests.

Grace, Combined Honours BA Honours

Studying a Language

All language subjects available through Combined Honours provide modules both for beginners and those with previous language experience.

Please note:

- if you study a language beyond Stage 1, you must spend a year abroad between Stages 2 and 3, making your degree four years long
- you may study a maximum of two language subjects together in Stage 1, alongside a third subject – only one of these languages can be at beginners' level
- it is not normally possible to study Chinese and Japanese together

Careers

The flexibility of Combined Honours makes it an excellent choice whether you have a particular career in mind or you want to maintain a breadth of expertise to keep your options open.

The flexible nature of a Combined Honours degree has enabled our graduates to 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
- positions in large international financial companies

The ability to draw on knowledge and skills gained from different subject combinations has enabled many of our graduates to pursue an academic career in a diverse range of disciplines.

Studying Combined Honours also helps you develop a set of personal and professional skills that are highly valued by graduate employers, including adaptability, self-motivation, and the ability to manage a varied workload and balance competing priorities.



Computer Science

We work closely with industry to design computer science degrees that help you develop the skills most in demand with graduate employers, and our internationally renowned research centres mean you study at the cutting edge of the discipline. Specialise in an area of computer science like game engineering or build your own broad-based degree, choosing topics that match your interests from across our specialisms. Enhance your experience with a paid year in industry or a year abroad.

- ▶ **Gain an industry-recognised qualification** – our degrees are professionally accredited by the British Computer Society
- ▶ **Enjoy research-led teaching from international experts** – study degrees based on our internationally recognised research
- ▶ **Explore the subject and identify your interests** – explore all our specialisms in your first few years and find out where your interests lie (transfer between degrees is available up to the end of the second year)
- ▶ **Boost your CV with a year in industry** – choose an optional paid placement in industry, hosted by companies like Waterstones, Accenture, IBM, P&G, Deloitte, British Airways and GSK
- ▶ **Showcase your skills** – industry-sponsored student prizes let you showcase your achievements to potential employers
- ▶ **Take your knowledge further** – study to an advanced level with an MComp degree that integrates a year of Master's-level study, enhancing your employability
- ▶ **Learn in specialist IT facilities** – including: PC clusters running Linux and Windows; an immersive virtual reality suite; motion capture; and 3D printing facilities

Degrees	Page
Computer Science	
BSc Honours	108
With Industrial Placement BSc Honours	108
MComp Honours	108
With Industrial Placement MComp Honours	108
With Study Abroad MComp Honours	108
Computer Science (Bio-Computing)	
BSc Honours	109
With Industrial Placement BSc Honours	109
MComp Honours	109
With Industrial Placement MComp Honours	109
Computer Science (Game Engineering)	
BSc Honours	109
With Industrial Placement BSc Honours	109
MComp Honours	109
With Industrial Placement MComp Honours	109
Computer Science (Human-Computer Interaction)	
BSc Honours	110
With Industrial Placement BSc Honours	110
Computer Science (Mobile and Distributed Systems)	
BSc Honours	110
With Industrial Placement BSc Honours	110
MComp Honours	110
With Industrial Placement MComp Honours	110
Computer Science (Security and Resilience)	
BSc Honours	111
With Industrial Placement BSc Honours	111
MComp Honours	111
With Industrial Placement MComp Honours	111
Computer Science (Software Engineering)	
BSc Honours	111
With Industrial Placement BSc Honours	111

See page 232 for a full list of degrees by subject.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All Computer Science BSc Honours degrees, pages 108–111

A levels: AAB–ABB/AAC (excluding General Studies and Critical Thinking). GCSE Mathematics grade B required.

International Baccalaureate: 34–35 points. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

All Computer Science MComp Honours degrees, pages 108–111

A levels: AAB (excluding General Studies and Critical Thinking). GCSE Mathematics grade B required.

International Baccalaureate: 35 points. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

League Table Ranking

We rank in the top 20 UK universities for Computer Science in *The Times/Sunday Times University Guide 2016*, *The Guardian University Guide 2016* and *The Complete University Guide 2016*.

Professional Accreditation

We have a policy of seeking British Computer Society (BCS) accreditation for all of 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 professional membership of the BCS on graduation and is the first step on the pathway to becoming a chartered IT professional.

BSc or MComp?

We offer computer science degrees at two levels:

- Bachelor of Science (BSc) – lasting three years, or four years with an industrial placement
- Master of Computing (MComp) – lasting four years, or five years with an industrial placement, with the final year taught at Master's level. The undergraduate fee still applies for this year, so you can gain an advanced qualification without needing to apply for funding for a separate postgraduate degree

Industrial Placement

Most of 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 from the School of Computing Science and the University's Careers Service 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.

DTUS Sponsorship

Many of our computer science degrees are approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation.

www.dsfc.ac.uk

Careers

Graduates of the School of Computing Science are highly sought after. Computer manufacturers and software houses, for example, recruit specialists to develop software solutions.

Organisations that use computers on a large scale – such as banks, insurance companies, the electronics industry, central and local government, and management in all areas of business – also offer employment opportunities to graduates with computer skills.

Companies such as Waterstones, Accenture, IBM, P&G, Deloitte, Microsoft, Sage and GSK regularly recruit our placement students and graduates.

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 gain an appreciation of what it is to be a professional working in the IT industry and develop your problem-solving skills.

Stage 2: You build on your knowledge, with further 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 real-world teamworking skills.

In later Stages you carry out an individual project and study modules that match your choice of degree.

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 fail to 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.

Choose one of these degrees and you will continue to study a broad range of computer science topics from across our specialist areas in Stage 3, and Stage 4 for MComp students, allowing you to keep 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 107 for more information about the work placement year.

I would say that this course is a really great choice for someone with almost no computer science-related knowledge, as well as for someone who has a lot of knowledge. It would suit anyone who is ready to learn. It includes a lot of practical work, which is pretty important in the IT sector and you gain valuable experience during the lectures, practicals and tutorials.

Kristina, 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'll develop an understanding of how to design, develop and implement biologically inspired algorithms to analyse large-volume data. You'll 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, 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 107 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'll 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'll 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 107 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'll develop your knowledge and understanding of the architectural concepts underpinning computer and networking hardware platforms.

You'll learn to apply relevant theory to the solution of practical problems and to the analysis of existing algorithms and techniques, and to recommend techniques and algorithms appropriate to specific circumstances in the areas of fundamental systems and major applications. You will also be able to appreciate, develop and evaluate new algorithms, techniques and other developments within the computing field.

In addition, you'll 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 on page 108.

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 107 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'll 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 on page 108.

In Stage 3, you study specialist topics in distributed systems, mobile computer systems development, Internet technology, and system and network technology, alongside a range of optional modules.

In Stage 4 MComp students study topics from our Internet Technologies and Enterprise 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 107 for more information about the work placement (for Industrial Placement students).

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 | ✓📄

You'll graduate with specialist knowledge and skills related to the development of dependable software systems. You'll understand 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 on page 108.

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 107 for more information about the work placement (for Industrial Placement students).

I really enjoy the opportunities I get to meet people working in industry who come in to give guest lectures about what they do. It gives a good insight into the computing science world, and allows us to see what opportunities are available to us after graduation.

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 on page 108.

In Stage 3, a range of specialist topics covers the skills required for managing large-scale software projects, as well as 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 107 for more information about the work placement (for Industrial Placement students).



Samuel
Computer Science BSc Honours

Dentistry

The School of Dental Sciences at Newcastle offers you some of the most modern and best-equipped facilities in the country in which to begin your dental education. Choose from two professional dental qualifications: an internationally recognised Bachelor in Dental Surgery degree preparing you for a career as a dentist; or our Oral and Dental Health Sciences BSc Honours degree, preparing you for a career as a dental hygienist therapist. Teaching is fully integrated, with plenty of support to progress from clinical simulation to real patient care and into the dental professions.

- ▶ **Learn from enthusiastic and committed staff** – our staff includes holders of national teaching fellowships and distinguished scientist awards
- ▶ **Study clinical skills in state-of-the-art facilities** – study in our high-tech Clinical Simulation Unit, where you'll train in a range of clinical skills, on phantom heads with plastic and natural teeth, with support from our full-time clinical teaching staff and dental nurses
- ▶ **Gain experience in a full range of dental procedures** – learn in clinics run by specialists in oral and maxillofacial surgery, oral medicine, paediatric dentistry, orthodontics and restorative dentistry
- ▶ **Obtain high levels of support** – the Dental School offers 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 students can study abroad, gain an intercalated degree and undertake elective study opportunities

Degrees	Page
Dental Surgery BDS Honours	115
Oral and Dental Health Sciences BSc Honours	116
You may also be interested in...	
Biomedical and Biomolecular Sciences	
Chemistry	
Medicine	

See page 232 for a full list of degrees by subject.

I've enjoyed the clinical aspect of the course the most – it's what you work towards! Getting to treat patients in the hospital allows you to learn by doing, which is really important in this field. It also allows you to apply knowledge and interpersonal skills to provide care, building up the transferable skills you need to be a good dentist.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Dental Surgery BDS Honours

A levels: AAA 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. Additional requirements apply, see below.

International Baccalaureate: A minimum of 37 points with Chemistry and Biology at grade 6 or above at Higher Level. Additional requirements apply, see below.

Graduate entry: See online for information about graduate entry to this degree: www.ncl.ac.uk/undergraduate/degrees

Oral and Dental Health Sciences BSc Honours

A levels: ABB including Biology, but excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A levels, we require a pass in the practical element.

International Baccalaureate: A minimum of 34 points including Biology at Higher Level grade 5 or above.

Graduate entry: See online for information about graduate entry to this degree: www.ncl.ac.uk/undergraduate/degrees

Other equivalent qualifications may be considered. Additional requirements apply, see below.

Additional Admissions Information

All Students

Disclosure and Barring Service (DBS) checks:

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.

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 follow 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 not only 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, but also to ensure that we provide any reasonable support necessary.

Interview: Candidates will be considered for interview on the basis of their application form. Students are generally not accepted without an interview.



Find more information on our degrees
www.ncl.ac.uk/undergraduate

BDS Students

In addition to the information on page 113, 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 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 for both degrees must undertake a minimum of two weeks' work experience prior to submitting their UCAS application. This should be carried out in a General Dental Practice but other types of dental work experience may be considered. 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

League Table Ranking

Dentistry at Newcastle is highly regarded, we rank 3rd in the UK in *The Complete University Guide 2016* and 4th in the UK in *The Times/Sunday Times University Guide 2016*. We also achieved a 97 per cent overall student satisfaction score in the *National Student Survey 2015*, ranking us 8th in the UK. We also rank in the top 25 per cent in the UK for world-class research (*Research Excellence Framework 2014*).

Professional Accreditation

Our BDS is professionally accredited by the General Dental Council (GDC), which means it meets the standards set by the dental regulator.

At the time of publication (January 2016), our Oral and Dental Health Sciences degree has been submitted for and is awaiting GDC accreditation. Please check online for the most up-to-date information:

www.ncl.ac.uk/undergraduate/degrees/a207

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. Please note that 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 113, please also note the following.

Skills and experience: Candidates are expected to show a range of skills including dexterity, communication and teamwork.

Some work experience in dentistry, particularly shadowing a dental hygienist or dental therapist, is required before completing the UCAS form. 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 and will have ideally undertaken two weeks' dental work or shadowing preferably in a General Dental Practice.

Applicants must demonstrate abilities and attitudes relevant to entering a caring profession, and have seen enough basic dentistry to make an informed career decision to train for the profession.

Intercalated Study (BDS Students Only)

Intercalated study is available for BDS students after completion of Stages 2, 3 or 4. Intercalated study is an opportunity for you to study for an additional degree by taking a year out from your dental studies and 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 77)
- undertaking our one-year Medical and Molecular Biosciences MRes programme after Stage 3 or Stage 4 (to gain an MRes qualification)

Careers

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. Advice to help you make the appropriate choice is available from your tutor as well as other members of staff, including the University's Careers Service.

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.

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.

I chose Newcastle as I felt it had the best facilities of all the dental schools I'd looked at and the atmosphere was really welcoming and friendly.

Alexandra, Dental Surgery BDS Honours



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 skillful 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.

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.

✓ Professional accreditation (see page 114)



Earth Science

If you are interested in the processes that shape the structure and development of the Earth, this subject could be for you. Earth science covers everything from the formation of rocks and minerals to the impact of human activity on the environment, and the sustainability of resources. It is key to tackling major challenges such as sustainable energy and environmental protection, and can lead to a range of rewarding careers. This degree provides you with an in-depth understanding of the Earth system through topics in geology, remote sensing, global imaging systems (GIS), chemistry and microbiology.

- ▶ **Develop in-demand skills for your future career** – you'll gain career-enhancing skills in laboratory techniques, field skills, remote sensing and global imaging systems
- ▶ **Get hands-on experience with high-tech kit** – enjoy learning with our advanced and industry-standard equipment and in high-spec labs
- ▶ **Gain practical experience** – build your field skills and experience through three residential field courses, national and international, as well as field days to the superb local geology of northern England
- ▶ **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 regarding the consequences of human activities
- ▶ **Study to an advanced level** – choose our MEarthSci degree and specialise in the final year in vocational or research skills, studying alongside MSc students

Degrees	Page
Earth Science BSc Honours	118
Earth Science MEarthSci Honours	118
You may also be interested in...	
Chemistry	
Civil Engineering	
Environmental and Rural Studies	
Geographic Information Science	
Geography	
Surveying and Mapping Science	

See page 232 for a full list of degrees by subject.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Earth Science BSc Honours Earth Science MEarthSci Honours

A levels: AAB including two from: Mathematics; Physics; Chemistry; Geology; Geography or Biology (or similar), but excluding General Studies and Critical Thinking. Preference will be given to applicants with mathematical, science-based or Geography A levels. For Biology, Physics and Chemistry A levels, we require a pass in the practical element. GCSE Mathematics and Dual Award Science (minimum grade B) required if not offered at A or AS level.

International Baccalaureate: A minimum of 35 points. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

Professional Accreditation

We have a policy of seeking relevant accreditation for our degrees so you can be assured that you will graduate with a degree that meets the standard set by the sector. Our Earth Science degrees will be submitted for accreditation by the Geological Society of London and the Royal Institution of Chartered Surveyors at the appropriate time.

Careers

Earth Science graduates are well qualified to enter a wide range of careers, and industry has a shortage of graduates with the skills taught on this course.

The geoscience skills you learn will enable you to enter the global geology, geochemistry, GIS and environment industries. Potential career areas include mining, oil, civil engineering, water supply, environmental and emerging green energy sectors.

The remote sensing and GIS skills you learn are in wide demand across all industry sectors, as new ways are found to collect, manage and display data.

You will also develop a portfolio of transferable graduate skills such as team working, data analysis and interpretation, and self-reliance. These skills are highly valued by a wide range of employers outside the earth science sector and can open the door to graduate entry programmes with major employers.

Earth Science

BSc Honours | F641 | 3 years
MEarthSci Honours | F640 | 4 years

Our degrees cover four distinct areas of study: geology; geochemistry; GIS and remote sensing; and Earth systems. This enables you to study 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. Regular field days and residential field courses enable you to experience the Earth in action, and develop the professional skills needed for your future career.

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 UK residential field course will enable you to put your newly developed skills into practice.

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 provides training in how to identify and map geological formations in the field.

Stage 3: At this stage you receive focused specialist training, developing your knowledge and skills to an advanced level. You are able to develop your ideas and implement research projects that help you gain a greater understanding of the subject. 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.

Economics

All of our degrees cover modern economic theory and policy in Britain, Europe and around the world, developing graduates who can address the economic problems facing society today. Get the best possible start on your career through a work placement or integrated study abroad experience. Optional topics in areas such as accounting and finance, human resource management and marketing, broaden your skill set and open the door to a wide range of careers.

- ▶ **Develop skills with real-world relevance** – we'll help you develop the core quantitative skills that employers look for, boosting your employability
- ▶ **Boost your CV with a work placement** – gain real-world business experience by building a year-long work placement into your degree, with the support of our dedicated Placement Officer (excluding GL11)
- ▶ **Study abroad for an international perspective** – experience university life in another country by studying abroad for a year (excluding GL11)
- ▶ **Enjoy career planning support** – including our dedicated Careers Adviser and annual Career Development Week, as well as help finding summer internships and part-time work
- ▶ **Benefit from modern teaching and learning facilities** – study in our £50 million Business School building in the heart of Newcastle's business district
- ▶ **Be part of a thriving global community** – enjoy our strong community spirit, with a dedicated Board of Students, year-round social programme and peer-mentoring scheme

Degrees	Page
Economics BSc Honours	121
Economics and Business Management BA Honours	121
Economics and Finance BSc Honours	122
Economics and Mathematics BSc Honours	122
You may also be interested in...	
Accounting and Finance	
Business Management	
Marketing	
Mathematics and Statistics	
Politics and Economics	

See page 232 for a full list of degrees by subject.

If you want to be challenged, discover your inner strengths, exhibit your abilities, and have a degree that will distinguish you as an individual and in the labour market – all achieved in a balanced and homely environment – then this is the place you have to be.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Economics BSc Honours*

Economics and Business

Management BA Honours*

Economics and Finance BSc Honours*

A levels: AAB excluding General Studies.

See online for further information on preferred A level subjects. GCSE Mathematics grade A and English grade B required if not taken at A or AS level.

International Baccalaureate: 35 points. Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level.

*See online for additional information about GCSE (or equivalent) requirements.

Economics and Mathematics BSc Honours

A levels: AAB–ABB including Mathematics at grade A and excluding General Studies. A/AS level Economics is desirable but not essential.

International Baccalaureate: A minimum of 35 points with Mathematics grade 6 at Higher Level.

I'm so happy I picked Newcastle University. The city is so much fun and the University is brilliant. I particularly like maths, so I like how my degree lets me apply maths to the working world.

James, Economics and Business Management BA Honours

League Table Ranking

Economics at Newcastle is highly regarded, achieving a 92 per cent overall student satisfaction score in the *National Student Survey 2015*.

Study Abroad

Where you see this icon, you can study in Europe between Stages 2 and 3 through the Erasmus exchange scheme. We currently have partner universities in Denmark, Finland, France, Holland, Norway, Spain and Sweden.

Groningen Study Abroad option: Economics (L100) and Economics and Finance (L161) students 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.

DTUS Sponsorship

Our Economics and Business Management degree is approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

Careers

Economics graduates are highly employable. Apart from your specific understanding of the subject, employers value the skills of numeracy and analysis, the ability to communicate and the capacity to grasp broad issues that our graduates acquire. Graduate destinations vary widely in terms of the range of roles and employers, but include regional, national and international organisations across many sectors.

Whilst only a few economics graduates may be expected to become professional economists, many find economics an excellent base for entry into a rewarding career in finance – including accounting, insurance, tax and banking, or management. Some graduates go on to undertake postgraduate studies, either in economics, research, teacher training or further qualifications in specialist areas.

The University's Careers Service runs skills-based workshops throughout the year and hosts many employer presentations on campus as well as job fairs and related events. Newcastle University Business School also hosts a Career Development Week each year, which is designed to help you to improve your employability skills, meet potential employers and explore possible careers.

Economics

BSc Honours | L100 | 3 or 4 years

This degree focuses on the fundamental concepts, analytical tools and quantitative techniques that are essential to an understanding of modern economics. It is available with an optional work placement or study abroad year.

Stage 1: We introduce you to the main economic issues that confront the British, European and world economies as well as core economics topics, such as micro- and macroeconomics and mathematical and statistical techniques in economic analysis. We also introduce you to 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 acquired at Stage 1 with modules in macroeconomics, microeconomics and empirical economics, giving you a deeper insight into the methods used by economists to analyse the workings of the modern economy.

Further modules in applied economics engage you in group work and develop 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, the economics of European integration and environmental economics.

Alternatively, you may spend Stage 2 studying economics at the University of Groningen in the Netherlands – see opposite.

Work placement/study abroad (optional): You may choose to spend a year between Stages 2 and 3 gaining business experience on an industrial or commercial work placement. Newcastle University Business School has a dedicated Placement Officer who works closely with the University's Careers Service to help you make the most of your skills and to find the best placement opportunities. Alternatively you may choose to spend the year studying abroad (see opposite).

Stage 3: You specialise in the areas of economics that interest you the most. Two compulsory modules in advanced economic theory are complemented by a wide choice of optional topics including: labour economics; behavioural economics; econometric analysis; public economics; financial economics; industrial economics; and health economics. You may also complete a dissertation, giving you the chance to undertake original research and apply your economic knowledge to a topic of particular interest.

Economics and Business Management

BA Honours | LN12 | 3 or 4 years

This degree combines study of the key concepts, tools and techniques of economics with a thorough understanding of business. It is available with an optional work placement or study abroad year.

Stage 1: We lay the foundations in the key disciplines of economics, business management and marketing, and provide you with an understanding of 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): You may choose to spend a year between Stages 2 and 3 gaining business experience on an industrial or commercial work placement. Newcastle University Business School has a dedicated Placement Officer who works closely with the University's Careers Service to help you make the most of your skills and to find the best placement opportunities. Alternatively you may choose to spend the year studying abroad (see opposite).

Stage 3: You take compulsory modules in industrial economics and advanced microeconomic theory. Students who complete 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 then choose from a range of optional modules. In economics, topics include advanced macroeconomics, economics of risk and uncertainty, health economics, behavioural economics, financial economics and public economics. In business management and marketing, modules include international human resource management, innovation and creativity, and advertising.

Economics and Finance

BSc Honours | L161 | 3 or 4 years

This degree emphasises economic concepts and tools that are relevant to an understanding of modern economics and the analysis of financial markets. It is available with an optional work placement or study abroad year.

Stage 1: We provide you with an understanding of the principles of accounting, as well as core economics topics, such as micro- and macroeconomics. We introduce you to mathematical and statistical techniques in economic analysis, and a variety of IT and quantitative skills.

Stage 2: Modules in microeconomics and macroeconomics give you a deeper insight into the methods used by economists to understand the workings of the modern economy, and into the relationship between government and the financial and business sectors. The empirical economic analysis module equips you with the ability to interpret and evaluate applied research in economics. You also study topics 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, the economics of European integration, financial accounting and management accounting.

Alternatively, you may spend Stage 2 studying economics at the University of Groningen in the Netherlands – see page 120.

Work placement/study abroad (optional): You may choose to spend a year between Stages 2 and 3 gaining business experience on an industrial or commercial work placement. Newcastle University Business School has a dedicated Placement Officer who works closely with the University's Careers Service to help you make the most of your skills and to find the best placement opportunities. Alternatively you may choose to spend the year studying abroad (see page 120).

Stage 3: You take modules in advanced micro- and macroeconomic theory, financial economics and international financial management. These develop your understanding of the financial markets and financial decision making, as well as issues that are of importance to a financial manager operating in a global market. Your remaining modules are optional and cover a financial and economics topics such as: financial accounting; management accounting; taxation; risk and uncertainty; economics of banking; and labour economics. You may also choose to complete a dissertation, which gives you the opportunity to pursue a topic of original research.

Economics and Mathematics

BSc Honours | GL11 | 3 years

Employers will value the combination of economic theory and mathematical skills you gain on this degree, which is part of our Joint Honours in Science scheme. 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 in two Schools and receive outstanding support to help you settle into both.

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 also 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 also continue to develop your understanding of core mathematical topics, including: vector calculus; methods for solving differential equations; number systems; the foundations of analysis; foundations of probability; and regression and modelling.

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 development economics, health economics, labour economics and econometric analysis. In mathematics, the range of topics available is also research-led, including areas such as stochastic financial modelling, time series forecasting, and statistical inference. In addition, you are able to select optional modules to develop your own project topic or focus on your own career development.

Education

What is meant by 'education' and what is its purpose? What form should it take and who benefits? Who should decide? What role is played by social or cultural factors? What might the future of teaching and learning look like? Our degree explores questions such as these. There have been educationalists at Newcastle for over 100 years, so you will be joining a leading university with a long history of teaching and research in this area, including teacher education, educational psychology, and education for international development.

- Study a stimulating, interdisciplinary curriculum** – engage in rigorous academic study of education with a special emphasis on the philosophy, 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 a range of professional expertise as teachers in a variety of educational settings
- Boost your CV with work placements** – benefit from work experience and placements including student tutoring, volunteering opportunities, and 'learning from work' options
- Develop transferable skills** – we'll help you develop transferable skills for your future career, including the opportunity in the 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

Degrees	Page
Education BA Honours	124
You may also be interested in...	
Combined Honours (Education, plus up to two other subjects)	

See page 232 for a full list of degrees by subject.

It's a great course that studies education in depth. It really expands your mind and you get to study a wide range of modules. You also have the chance to take a modern language as an extra module so I am currently studying Japanese.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Education BA Honours

A levels: ABB–BBB. No specific subjects are required.

International Baccalaureate: 30–32 points including three subjects at grade 5 or above at Higher Level.

Careers

This degree will appeal to those who are interested in a rigorous and academic study of education that will develop you as an individual and provide you with the essential skills necessary for work in a range of contexts.

These include a possible career in primary teaching (graduates would need to undertake a primary PGCE) as well as in other fields such as: public service; community and social work; education management; heritage, museum, theatre and library education; or information management (eg e-learning).

You will also have the opportunity for further postgraduate study in education, cross-cultural communication or international development here at Newcastle.

Education

BA Honours | X390 | 3 years

The study of education is essential in order 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 history, 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.

Electrical and Electronic Engineering

Electrical and electronic engineers invent and create the technology that underpins much of modern society. A degree in electrical and electronic engineering prepares you to work in the vast range of engineering sectors, including aerospace, automotive, energy, information technology and telecommunications. Our degrees empower students through practical project work, designed with leading companies, to ensure that you develop the cutting-edge skills and knowledge to forge a successful electrical engineering career.

- ▶ **Graduate with an industry-recognised qualification** – our degrees are professionally accredited by the Institution of Engineering and Technology (IET)
- ▶ **Benefit from cutting-edge research** – we are in the top 10 for world-leading research in the UK with 90 per cent of our research classed as world-leading or internationally excellent (REF 2014)
- ▶ **Become a graduate in demand** – our close relationship with leading UK businesses provides valuable exposure to future employers
- ▶ **Enjoy sponsorship and scholarship opportunities** – our membership of the E3 Academy and the UK Electronics Skills Foundation gives you access to funding
- ▶ **Boost your CV with industry experience** – our students have worked with a range of organisations such as BT, Deloitte and Touche and Rolls-Royce
- ▶ **Learn industry-standard IT systems** – our computing facilities, software and hardware are reviewed regularly to make sure you are always working with the most up-to-date equipment available
- ▶ **Access outstanding facilities** – including the UK's largest state-of-the-art electrical power laboratories for developing the electrical technologies of the future, such as high-performance and high-efficiency electric vehicles and solar-powered aircraft
- ▶ **Receive free student membership of the IET** – offering access to networking opportunities with the local IET branch and other resources

Degrees	Page
Automation and Control	
BEng Honours	127
With Industrial Project MEng Honours	127
Digital Electronics	
BEng Honours	128
With Industrial Project MEng Honours	128
Electrical and Electronic Engineering	
BEng Honours	128
With Industrial Project MEng Honours	128
Electrical Power Engineering	
BEng Honours	128
With Industrial Project MEng Honours	128
Electronic Communications	
BEng Honours	128
With Industrial Project MEng Honours	128
Electronics and Computer Engineering	
BEng Honours	129
With Industrial Project MEng Honours	129
Microelectronic Engineering	
BEng Honours	129
With Industrial Project MEng Honours	129
You may also be interested in...	
Computer Science	
Electrical and Electronic Engineering Foundation Year	
Physics	

See page 232 for a full list of degrees by subject.



Find more information on our degrees
www.ncl.ac.uk/undergraduate

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All Electrical and Electronic Engineering BEng Honours degrees, pages 127–129

A levels: AAB 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. If Physics is not offered at A or AS level, a minimum of grade B Physics or Dual Award Science GCSE is required.

International Baccalaureate: A minimum of 35 points with 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.

All Electrical and Electronic Engineering MEng Honours degrees, pages 127–129

A levels: AAA 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. If Physics is not offered at A or AS level, a minimum of grade B Physics or Dual Award Science GCSE is required.

International Baccalaureate: 37 points with 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.

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 50 for details.

Pre-Entry Mathematics Course

If you don't have the required mathematics qualifications for direct entry, you may be invited to take our Pre-Entry Mathematics Course. See page 50 for details.

League Table Ranking

Electrical Engineering at Newcastle achieved an impressive 90 per cent overall student satisfaction score in the *National Student Survey 2015*, ranking us in the top 20 in the UK.

Professional Accreditation

Our degrees are professionally accredited by the Institution of Engineering and Technology (IET) and 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.

DTUS Sponsorship

Our electrical and electronic engineering degrees are approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

Singapore Study Option (International Students)

Working with the Singapore Institute of Technology, we offer a full-time BEng Honours degree in Electrical Power Engineering in Singapore. www.ncl.ac.uk/singapore/study

Careers

Many employers, in the UK and abroad, are actively seeking graduates with electrical and electronic engineering skills. Our recent Electrical and Electronic Engineering BEng and MEng graduates report earning between £25,000 and £28,000 per annum (Destinations of Leavers from Higher Education survey, 2013–14) and graduates can expect this to increase significantly over the course of their career.

Our graduates go on to work on the latest developments in hybrid vehicles, smartphone technology, and green energy, with companies such as Siemens, Sevcon, ARM and Jaguar Landrover.

As well as the technical and practical expertise that you will gain, our degrees also incorporate opportunities to learn and develop transferable skills, such as the ability to analyse and problem-solve, project working both as part of a team and on your own, communicating with others, planning and time management, and computer literacy, all of which are vital for the employment market.

A number of our graduates have gone on to work in roles within the commercial, financial, industrial and public sectors, often in management roles.

What You Will Study

We have designed our degrees so that all students study the same core modules for the first two years (excluding H652 and H654, as these are geared towards computer programming). 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.

We cover topics such as current flow in semiconductor devices, electromagnetism, analogue circuits 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 help you develop your computing skills and engineering mathematics knowledge, with topics covering extended C and assembly language programming techniques, 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, a radio transmitter and receiver and, in the second year, a racing car that can find its own way round a track. This project culminates in a race held on the last day of term, where the teams go head-to-head in pursuit of a prize.

Industrial Project (MEng Only)

A major element of Stage 4 for MEng students is an industrial project. This gives you valuable experience of working on a real engineering project set by your host business, boosting your CV and giving you the chance to develop valuable industry contacts.

Many students choose to do this at a local company, but you may undertake the project anywhere in the UK or abroad. Recent participating companies include Tridonic, Dyson, Siemens and Imagination Technologies. Recent projects have included satellite electronic communication systems for mobile phones and navigation, protocols for electronic drive control, an electric bike, and underwater autonomous vehicle control.

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, before allowing you to specialise in electrical automation and control systems, their constituents 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.

In Stages 1 and 2 you study a broad curriculum that equips you with essential knowledge and skills. See What You Will Study, left.

In Stage 3 (BEng and MEng) and Stage 4 (MEng only) typical fields of study include electromagnetism, robotics and linear control theory.

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 above). You will investigate topics such as adaptive and distributed control systems.



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 for the first two years (see What You Will Study, page 127), before allowing you to 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.

In Stage 3 (BEng and MEng) and Stage 4 (MEng only) typical fields of study include digital systems design and mobile and cellular communications.

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 127). You will investigate topics such as mobile and cellular communications.

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 127), before giving you the chance to specialise or continue with a broad choice of topics in the later Stages of your degree.

In Stage 3 (BEng and MEng) and Stage 4 (MEng only) you cover everything from the operation and integration of nanoelectronic devices, to national-scale electricity networks. You also explore areas such as the 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.

✓ **Professional accreditation** (see page 126)

MEng students further develop their practical engineering skills through a group design project in Stage 4, alongside their industrial project (see Industrial Project, page 127). You will investigate areas such as electronic device fabrication 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 for the first two years (see What You Will Study, page 127), before allowing you to specialise in electrical power systems, their constituents and applications in the later Stages of your degree.

Electrical power engineering is concerned with the generation, transmission and distribution of electric power.

In Stage 3 (BEng and MEng) and Stage 4 (MEng only) typical fields of study include electrical machines and renewable energy.

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 127). 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 for the first two years (see What You Will Study, page 127), before allowing you to 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, as well as making information and entertainment resources readily available from the other side of the globe.

In Stage 3 (BEng and MEng) and Stage 4 (MEng only) 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.

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 127). You will develop specialist knowledge in fields such as power system operation and mobile and cellular communications.

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 127) 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 the School of 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.

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 127). 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 for the first two years (see What You Will Study, page 127), before allowing you to 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.

In Stage 3 (BEng and MEng) and Stage 4 (MEng only) 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 127). You will develop specialist skills in design capture, simulation and design synthesis techniques.

I like applying theory in practical applications in the University laboratories. My favourite module is electronics, as it delves into the construction and functions of many electronic circuits and then shows the practical applications in devices we use day to day.

Jessica, Electrical and Electronic Engineering BEng Honours

English Literature, Language and Linguistics

Studying in the School of English Literature, Language and Linguistics at Newcastle means following your interests, challenging yourself and studying subjects that span the centuries and the continents. All of our courses are taught by internationally renowned experts in their fields, with the success of our graduates proof of the excellence of our degrees.

- ▶ **Enjoy choice and flexibility** – our flexible degrees include 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** – enjoy high-quality library provision with over one million printed books, half a million e-books and 2,000 study spaces
- ▶ **Boost your CV through student media** – our award-winning student-run newspaper, and radio and TV stations, provide an excellent training ground for students with journalistic ambitions – see page 16
- ▶ **Access outstanding linguistic expertise** – our multi-school Centre for Research in Linguistics and Language Sciences (CRiLLS) 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

Degrees	Page
English Language BA Honours	132
English Language and Literature BA Honours	133
English Literature BA Honours	134
English Literature and History BA Honours	134
English Literature with Creative Writing BA Honours	135
Linguistics BA Honours	135
Linguistics with Chinese or Japanese BA Honours	136
Linguistics with French BA Honours	136
Linguistics with German BA Honours	136
Linguistics with Spanish BA Honours	136
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	

See page 232 for a full list of degrees by subject.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

English Language BA Honours*

A levels: AAB/ABB not including General Studies.

International Baccalaureate: 34–35 points.

English Literature and History BA Honours

A levels: AAA–AAB including English Literature or English Language and Literature at grade A and History at grade A or B, not including General Studies.

International Baccalaureate: 35–36 points with English A1 at Higher Level grade 6 and History A1 at Higher Level grade 5 or 6.

English Literature BA Honours

English Language and Literature BA Honours

English Literature with Creative Writing BA Honours

A levels: AAA–AAB including English Literature or English Language and Literature at grade A, not including General Studies.

International Baccalaureate: 35–36 points with English A1 at Higher Level, grade 6.

Linguistics BA Honours**

Linguistics with Chinese or Japanese BA Honours**

A levels: AAA–ABB not including General Studies.

International Baccalaureate: 34–36 points.

Linguistics with French, German or Spanish BA Honours**

A Levels: AAA–ABB 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.

International Baccalaureate: 34–36 points with grade 5 in French, German, or Spanish as appropriate at Higher Level.

*Candidates who have some background in mathematics and science may be interested in the cognitive/brain science and quantitative elements of this course. Candidates who prefer arts and humanities subjects 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.



One of the things I really enjoy about my course is the huge variety of different texts we've explored – Beowulf to Patrick Ness, epic poems to Gothic novels to Spielberg films. As you enter your second and third year there are so many modules to choose from and each sounds great!



Find more information on our degrees
www.ncl.ac.uk/undergraduate

League Table Ranking

The quality of the English study experience at Newcastle is recognised with a top 10 UK ranking in *The Times/Sunday Times University Guide 2016* and *The Complete University Guide 2016*. We also achieved a very impressive 93 per cent overall student satisfaction score in the *National Student Survey 2015*. English Language and Literature at Newcastle ranks 3rd overall in the UK for research (*Research Excellence Framework 2014*) and in the top 150 universities in the world in the *QS World University Rankings by Subject 2015*.

Linguistics at Newcastle ranks in the top 10 UK universities in *The Times/Sunday Times University Guide 2016* and *The Complete University Guide 2016*. We also rank in the top 100 universities in the world by the *QS World University Rankings by Subject 2015*.

Study Abroad

All UK and EU students 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.

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 doing a combination of study and work. Students of Chinese and Japanese spend the year studying at one of our partner universities in China or Japan.

Careers

As you learn, you gain skills in analysis, the insight needed to communicate and argue effectively, and the ability to work independently and meet deadlines. You will also become confident in working collaboratively, methodical in your preparation, and skilled in the use of information technologies.

When you graduate you will be prepared for a range of different careers or postgraduate study. Your literary and/or linguistic training can be used in the legal profession as well as journalism, public service, marketing, advertising, management, librarianship, teaching, speech therapy and any field where communication is important (including science, finance, business, trade and international relations).

The skills you gain on our degree programmes will also be useful in the highly competitive creative industries, as well as those that rely on language for technology and engineering (such as Google, Apple and Microsoft).

English Language

BA Honours | Q302 | 3 years | 

This degree explores the English language as it has developed over time, as it is acquired as a first and second language, and as it is used to mark social, regional and stylistic distinctions. There is a strong element of linguistics (the scientific study of language) and you will 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 alongside others that explore 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 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, focusing 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 also look at 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; new words in English; 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 conducted by staff.

My course, English Language, allows me to take modules from other areas of English such as linguistics and literature as well as study modules from other subjects. This diversity makes the course interesting each day and allows me to gain an insight into the broad subject that is English.



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, so that you gain skills in both subjects. You study at least one third of your topics in each discipline at each Stage, and have the freedom to choose the remaining third from a wide selection of language, linguistics or literature modules, or topics outside the School of English Literature, Language and Linguistics.


Stage 1: We lay the foundations for the theoretical and historical study of language and literature, as well as introducing general topics on the nature of language and more specific ones such as the investigation of regional dialects.

Stages 2 and 3: We organise your language modules by topic to 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.

The structure of your literature modules echoes that of our English Literature degree, requiring you to take at least one pre-20th-century topic alongside a more contemporary one in both the second and the third years. A wide range of topics is always available, including: Renaissance literature; the Romantics; the Victorians; 20th-century British and American modernism; postwar 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. Beyond that, taking an independent study module or writing a 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, the degree combines a flexible approach and a wide range of option choices with extensive historical coverage. There are also opportunities to practise creative writing and theatre, to make films or join a work placement in one of the region's cultural industries, but 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 and are required to take at least two pre-20th-century topics alongside at least two contemporary ones. Film, theatre, poetry and prose are included in these option choices, as are American, postcolonial and children's 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 choose 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, as you continue to broaden and deepen your understanding of English literature. Current options include: Shakespeare; the Victorian novel; the child in contemporary performance; Romantic poetry; postwar British fiction; and 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 will learn the skills of close reading, literary analysis and working with concepts, 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 historiographical and literary-critical traditions relating to the study of 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 modules on 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, take the history of postwar Britain alongside a module on that period's representation in British films; or take the history of Victorian Britain with a module in the Victorian novel.

We also have two modules in the second and the third years which are jointly taught 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 and are 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 | 

Combining 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, and the activities of the Newcastle Centre for the Literary Arts.


Stage 1: In the first year, 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 will also explore different ways of approaching creative writing and 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: Shakespeare; the Victorian novel; the child in contemporary performance; Romantic poetry; postwar British fiction; and a work placement in the cultural industries.

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 semantics and pragmatics, 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, such as: 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 also 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 page 135), the main differences being that you concentrate on the same East Asian language at each Stage and you 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, while beginning 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 132). We have links with universities across both countries – see www.ncl.ac.uk/undergraduate/degrees/q1t4

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 study 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, currently including: 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, 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 page 135). Your language tuition in the School of Modern Languages involves two hours a week, taught by a native speaker and covering speaking, reading, writing and listening skills, plus a one-hour weekly grammar lesson. You complement this with modules aimed at helping you to understand better the culture and society of the language you're studying. 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 on page 132 for 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 study 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, currently including: 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

If you enjoy the outdoors, and want to combine your interest in the environment with skills that you can take into a wide range of careers, then Environmental and Rural Studies at Newcastle has plenty to offer. We cater for a huge spectrum of environmental and social science interests, with plenty of fieldwork opportunities in the study-rich region on our doorstep. You will also have the chance to develop career-enhancing skills in business and entrepreneurship, marketing, management, negotiation and co-operation, preparing you for careers in the environmental sector and beyond.

-  **Enjoy fantastic fieldwork experiences** – access stunning countryside for fieldwork, 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** – enjoy close interaction with active professionals in the environmental sector through our strong links with estate managers, local authorities, voluntary organisations, farms, and other land-based businesses, offering insights into different careers
-  **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** – graduate with the latest subject knowledge thanks to research-informed teaching that incorporates the latest discoveries from the University's Centre for Rural Economy and the Newcastle University Institute for Sustainability
-  **Study a diverse curriculum** – enjoy combining topics from biology, geography, business, law, ecology and agriculture

Degrees	Page
Countryside Management BSc Honours	139
Rural Studies BSc Honours	139
Environmental Science BSc Honours	140
Environmental Sciences (Agricultural and Environmental Science) MEnvSci Honours	140
Environmental Sciences (Clean Technology) MEnvSci Honours	140
Environmental Sciences (Ecosystem Management) MEnvSci Honours	140
Environmental Sciences (Environmental Geochemistry) MEnvSci Honours	140
You may also be interested in...	
Agri-Business Management	
Agriculture	
Animal Science	
Biology and Zoology	
Geography	
Marine Sciences	

See page 232 for a full list of degrees by subject.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Countryside Management BSc Honours Rural Studies BSc Honours

A levels: ABB–BBB. GCSE Mathematics (minimum grade C) required.

International Baccalaureate: 32–34 points with Mathematics or Mathematical Studies grade 4 at Standard Level if not offered at Higher Level.

Environmental Science BSc Honours Environmental Sciences MEnvSci Honours:

- Agricultural and Environmental Science
- Clean Technology
- Ecosystem Management
- Environmental Geochemistry

A levels: ABB preferably including two science subjects from: Mathematics, Chemistry, Biology, Geography, Environmental Science, Psychology and Physics. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Mathematics (minimum grade C) required if not offered at a higher level.

International Baccalaureate: A minimum of 34 points 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.

Stage 2 Direct Entry

Direct entry onto Stage 2 may be offered for students who have completed a Newcastle University-accredited foundation programme with Northumberland College – see page 51.

League Table Ranking

Environmental Sciences at Newcastle is highly regarded. We rank in the top 10 universities in the UK in *The Times/Sunday Times University Guide 2016*. We also achieved an impressive 98 per cent overall student satisfaction score in the *National Student Survey 2015*, ranking us 6th in the UK. Environmental Sciences at Newcastle ranks in the top 150 universities in the world in the *QS World University Rankings by Subject 2015*.

Careers

The environmental sector has grown rapidly over the last decade. Our graduates have gone on to work for a wide range of organisations including the European Parliament, the Meteorological Office and Oxfam. Many also find employment with: conservation bodies, such as Natural England; the Environment Agency; water companies; local government environmental health departments; and other environmental protection agencies, undertaking roles such as environmental consultancy and environmental engineering.

Our graduates most commonly progress to land-based and environmental careers. Examples include working as a chartered surveyor; a rights-of-way officer; or as part of a conservation team for local authorities, charities or pressure groups. Government organisations and private firms also provide openings for agricultural or environmental advisers.

Our graduates have also successfully pursued non-environmental careers such as teaching, accountancy, banking, retail, the armed forces, the police force, the civil service, journalism and publishing. Some graduates choose to undertake specialist postgraduate study to further develop their knowledge and employability in this field.

Study Abroad /Work Placement

Our Environmental Science BSc Honours degree includes an optional work placement between Stages 2 and 3. UK and EU students may choose to take this work placement abroad through the Erasmus scheme.

Our Environmental Sciences 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.

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, equine studies, 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 and gives you 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, ecology, law, research methods, communications skills and countryside heritage. You also have a choice of optional modules, which include topics such as: climate change, geology, agricultural production, equine studies, farm management and accounting. There is also a choice of Career Development Modules.

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: countryside volunteering; game management; countryside tourism; environmental education; habitat management; solar farms; and wildlife conservation. You also study countryside management, policy evaluation, and rural planning and politics, as well as choosing from topics such as environmental law, estate management, 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, study skills, environment and land use, marketing, and business management. Visits to various rural enterprises and sites introduce you to a range of countryside professionals and give you insights 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 agricultural production, farm management, social geographies, human resource management, and marketing. You can also take a Career Development Module designed specifically for those wishing to explore enterprise, entrepreneurship and employability.

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; rural homelessness; women in rural enterprise; and ecotourism. You also study topics in: countryside management; environmental policy evaluation; and rural planning, politics and society. Optional modules include enterprise and entrepreneurship, sustainable development, globalisation, estate management and environmental law.



Environmental Science

BSc Honours | F850 | 3 or 4 years |  

Environmental Sciences

Agricultural and Environmental Science

MEnvSci Honours | F8D4 | 4 years | 

Clean Technology

MEnvSci Honours | F8H8 | 4 years | 

Ecosystem Management

MEnvSci Honours | F8C1 | 4 years | 

Environmental Geochemistry

MEnvSci Honours | F8F6 | 4 years | 

Environmental science is the study of the whole environment. It involves 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.

These degrees follow the same programme for the first three years. Students who are planning for a career in the environmental sector or academia, or who may wish to study for a higher qualification such as a PhD, are encouraged to apply for one of our Integrated Masters' (MEnvSci) degrees. These provide a more in-depth study in a specialist area of environmental science. They also include 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.

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.

Optional work placement (F850 only): BSc students may choose to 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. Alternatively, MEnvSci students may choose to spend this Stage studying overseas on a linked Study Abroad or Erasmus programme.

Stage 4 (MEnvSci only): The fourth year of our MEnvSci degrees 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; or 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.

My course is incredibly varied, this is why it appealed to me. You can choose some optional modules to tailor your degree to your interests, and as such I've really enjoyed focusing on ecology and conservation, while still gaining the necessary skills in compulsory modules, putting me in great stead for job applications.

Maria, Environmental Science BSc Honours

Fine Art

Fine Art at Newcastle will develop your individual creative strengths and ambitions through a carefully structured course that combines studio practice with study in art history. Based in superb studios and with unlimited access to outstanding workshops and facilities, you will enjoy opportunities to exhibit your work and undertake live projects that will equip you with the practical, professional and intellectual skills you need to thrive in the contemporary art world and beyond. You will also become part of the city's vibrant arts culture, fuelled by a range of world-class art galleries on your doorstep.

- ▶ **Establish your creative identity** – experiment with a wide variety of media and methods, under the close guidance of our studio tutors
- ▶ **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 staff-student 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 a dynamic programme of 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 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 city

Degrees

Page

Fine Art BA Honours

143

You may also be interested in...

Combined Honours (History of Art, plus up to two other subjects)

See page 232 for a full list of degrees by subject.

Having the time to sit down and think about art has been a fantastic opportunity. The art history modules of the first two years have been very useful in providing a good grounding to my studio practice. It's a great course in a very welcoming department.



Martin

Fine Art BA Honours



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Fine Art BA Honours

A levels: AAB–BBB. 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.

International Baccalaureate: 32–35 points 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.

Selection process: A very important part of our selection process is an inspection of a portfolio of your work. 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

League Table Ranking

The quality of the Fine Art study experience at Newcastle is recognised with an impressive overall student satisfaction score of 98 per cent in the *National Student Survey 2015*, ranking us 5th in the UK. We are also ranked in the top 5 UK universities for Fine Art in *The Times/Sunday Times University Guide 2016* and *The Guardian University Guide 2016*.

This is a great course if you want to learn a lot of the technical skills associated with fine art. You are free to do anything from painting and sculpture to video art, and as a four-year course it's a great option if you want time to experiment and find out what you enjoy before focusing on your final-year degree show.

Julia, Fine Art BA Honours

Study Abroad

There are regular study trips abroad, supporting both the art history and studio components of the 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.

UK and EU students may spend a semester in their 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 Bratislava, Bergen, Bremen, Ghent, Istanbul, Krakow, Melbourne, Munich, Rotterdam, Tromsø, Vienna and Zurich.

Careers

A Fine Art degree is an excellent grounding for many careers in the creative industries. Many of 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: curating and running art galleries; advisers on art to public and private organisations; art teachers; art therapists; and arts specialists in the community.

Other students use their degree to gain entry to a wide range of graduate professions such as finance, marketing, journalism, publishing and management, where employers recognise the range of transferable skills and high level of self-motivation that our students develop.

Some of our graduates are working on a self-employed or freelance basis, using the independent learning skills they acquired while studying. We offer good support for this through our professional development programme, LifeWorkArt, which runs throughout your degree, and the Rise Up self-employment programme in the University's Careers Service.

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, preparing you for work in professional art practice, postgraduate study or employment in related fields through projects such as organising exhibitions, field trips, gallery placements or participating in public art projects. Your artistic development is supported through tutorials, critiques, peer review, workshops, gallery visits and our weekly Visiting Speakers' Programme of artists, critics and curators.

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. A four-week project in Semester 2 introduces you to studio practice that draws on different media, culminating in a self-initiated project in media of your choice.

Within LifeWorkArt, in Semester 1 you visit galleries, studios and arts projects, developing contacts with the people who run them. In Semester 2, you develop a group exhibition, gaining skills in curating, installation, marketing, fundraising and project planning. 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, from topics including postwar 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 the University.

In Stage 3 all students also write an art history dissertation on a topic of their choice, and you may increase the number of art history modules you take. You also have the option of doing an exchange or 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. A series of hands-on practical workshops and a conference, where you meet recent graduates, artists, curators and arts professionals, equips you with professional skills in presenting yourself and your work, as well as the opportunity to start building your network within the visual arts.



I chose to study at Newcastle University because the Fine Art course was one of the best in the country. It had the right balance between the studio aspect of the course and the art history side.

Geography

Develop into the geographer that you want to be with degrees that offer both variety and specialisation. Geography at Newcastle enjoys a near 90-year history and a leading international reputation for teaching and research. Engage with a huge choice of research-led topics with our expert staff and see your study come to life through fieldwork, with a huge range of exciting options abroad and in the UK. Graduate with a well-developed understanding of the changing world around us and the specialist skills to address the key societal, economic and environmental challenges that face us today.

- ▶ **Choose from a wide range of degrees** – whatever type of geography interests you, and whatever your career plans, we have a degree to suit you, ranging from geography to more specialist areas
- ▶ **Learn from leading experts** – graduate with the latest subject knowledge thanks to research-informed teaching that incorporates the latest discoveries of our research-active staff
- ▶ **Gain practical skills through fieldwork** – opportunities vary between degrees but include locations like Amsterdam, Berlin, Copenhagen, New York, Morocco, Iceland, the American Southwest and Ireland
- ▶ **Develop your own research project** – supported by staff members, you have the opportunity to design and undertake your own research project on a topic that you choose
- ▶ **Travel overseas on an expedition** – apply for funding for a student-led research expedition abroad
- ▶ **Choose a professionally accredited degree** – our Geographic Information Systems degree is professionally accredited, as is the first year of our Geography and Planning degree
- ▶ **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

Degrees	Page
Geography BA Honours	147
Geography BSc Honours	147
Physical Geography BSc Honours	147
Geography and Planning BA Honours	148
Geographic Information Science BSc Honours	148
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	

See page 232 for a full list of degrees by subject.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Geography BA Honours

A levels: AAB–ABB including Geography and excluding General Studies. GCSE Mathematics (minimum grade C) is also required.

International Baccalaureate: 32–35 points 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.

Geography BSc Honours

A levels: AAB–ABB including Geography and at least one science-related subject from Mathematics, Chemistry, Physics, Biology, Geology, Psychology, Sports Science, Economics. 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) is also required if not offered at a higher level.

International Baccalaureate: 32–35 points 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.

Physical Geography BSc Honours

A levels: ABB including Geography and at least one science-related subject from Mathematics, Chemistry, Physics, Biology, Geology, Psychology, Sports Science, Economics. General Studies is not accepted. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Mathematics is required (minimum grade C) if not offered at higher level.

International Baccalaureate: A minimum of 32 points with Geography at Higher Level grade 6. Standard Level Mathematics or Mathematical Studies at grade 4 required if not offered at Higher Level.

Geography and Planning BA Honours

A levels: ABB–BBB including Geography.

International Baccalaureate: 30–32 points. Geography at Higher Level is preferable.

Geographic Information Science BSc Honours

A levels: ABB 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 required if not offered at A or AS level.

International Baccalaureate: A minimum of 34 points. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

The multidisciplinary nature of Geography gives you the opportunity to study a wide range of topics. At Newcastle University we benefit from teaching from the Centre for Urban and Regional Development Studies (CURDS), which means we're being taught at the forefront of new academic research.



League Table Ranking

Geography at Newcastle is highly regarded. We rank in the top 10 universities in the UK in *The Times/Sunday Times University Guide 2016*. We also achieved a very impressive 96 per cent overall student satisfaction score, ranking us 6th in the UK in the *National Student Survey 2015*. Geography at Newcastle ranks 10th overall in the UK for research (*Research Excellence Framework 2014*) and in the top 50 universities in the world in the *QS World University Rankings by Subject 2015*.

Professional Accreditation

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 (CICES).

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.

Study Abroad

UK and EU students have the opportunity to gain an international perspective on their subject by taking part in a study abroad exchange – look out for the icon where this applies.

DTUS Sponsorship

Our Physical Geography degree, and our Geographic Information Sciences degree are approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation.

www.dsfc.ac.uk

Careers

Our graduates' excellent employment record is a sign of the flexibility and professionalism that you can develop by studying one of our geography degrees. Our degrees help you develop a wide range of transferable skills including: written and oral presentation; teamwork; problem-solving; numeracy; computing; graphics; mapping; survey methods; and research skills.

Geographers are adaptable, and their broad understanding and range of approaches to the world and its problems are relevant to many different jobs. Organisations that have recruited our graduates in recent years 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; and the Scottish Wildlife Trust.

The range of skills that geographers acquire is much sought after by diverse employers. Many of our graduates enter management roles with companies such as Unilever, Nissan and KPMG. Some become accountants, bankers, computer programmers, teachers or research assistants, whilst others take up careers in environmental consultancy.

Others specialise in particular areas of geography by taking an MSc or PhD, and an increasing number travel abroad, in some cases doing voluntary work, before seeking paid employment.

Graduates of our Geographic Information Science degree go on to careers that make use of their specialist skills. Recent graduates have become surveyors, consultants, and GIS and data analysts. In the last three years, 92 per cent of our graduates were in work or study within six months of graduating, and 100 per cent of those in employment were in professional or managerial roles.

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 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.

Stage 2: You have a choice of destinations for your Stage 2 residential field course, currently including the American Southwest, Hong Kong, Borneo, Berlin, Copenhagen, Iceland, Ireland and Morocco.

You study a module in advanced research techniques and choose a module in either key methods for human geographers or earth surface processes. Your remaining topics are optional, giving you the chance to engage with our cutting-edge research in areas such as: water science; political geography; social geography; glacial environments; economic geography; globalisation, culture and development; and climate and environmental change.

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: local and regional development; global water resources; international and historical perspectives on race; geopolitical thought and practice; polar environments; lakes and environmental change; the geographies of money; Caribbean societies; geographies of sustainability; 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).

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 measuring 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 (eg 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), before putting this training into practice during a residential field course to 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: earth surface processes; climate and environmental change; aquatic pollution; glacial environments; surveying; photogrammetry and laser scanning. An overseas residential field trip, preparing you for your final-year dissertation, is a key Stage 2 module. Current destinations include the American Southwest, Iceland, Morocco and Ireland.

Stage 3: You consolidate your physical geography learning and skills through optional modules and 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; lakes and environmental change; and geohazards.

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 which 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 217).

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 |

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. 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 214).

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 through to multinational oil and infrastructure companies. Our graduates work all over the world applying, analysing, managing and creating geographic data and products.

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.

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 the most recent 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.

History

Explore the diversity of human history through a wide choice of topics that spans continents and centuries. See history come to life around you in the historically rich city and region on your doorstep, from Hadrian's Wall to the post-industrial regeneration of the Quayside area, and enjoy all the benefits of being part of a close-knit community where you won't feel lost in the crowd.

- ▶ **Learn from experts** – choose from a wide range of modules shaped by the research discoveries of our expert staff, covering a wide range 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
- ▶ **Access fantastic resources** – including one of the best university library services in the country, with historical special collections
- ▶ **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 our campus museum** – the Great North Museum 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

Degrees	Page
History BA Honours	151
Politics and History BA Honours	151
You may also be interested in...	
Archaeology	
Classics and Ancient History	
Combined Honours (History, plus up to two other subjects)	
English Literature and History	

See page 232 for a full list of degrees by subject.

The teaching quality of my course is fantastic! Every time I have had any trouble with understanding a topic or if I have come across something while reading that I would like to know a little more about, my lecturers have always provided me with brilliant support and advice. In both one-to-one meetings and in seminars and lectures, they have helped me understand things a lot better, and engage with the topic more as a result.

Rachel, History BA Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

History BA Honours

A levels: AAA–AAB including A in History.

Applicants offering a modern language are welcomed. General Studies accepted.

International Baccalaureate: 35–37 points. History required at Higher Level, at grade 6 or above.

Politics and History BA Honours

A levels: AAA–AAB usually including History (AS level History required if not offered at A level). General Studies accepted.

International Baccalaureate: A minimum of 35 points preferably with grade 6 or above in History at Higher Level.

League Table Ranking

History at Newcastle ranks in the top 20 UK universities in *The Complete University Guide 2015*. We also achieved a 93 per cent overall student satisfaction score in the *National Student Survey 2015*.

Study Abroad

UK and EU students have the opportunity to gain an international perspective on their subject by taking part in a study abroad exchange.

Careers

As a history student you will learn to evaluate evidence, organise ideas and present a coherent argument. You will assess problems in the light of considerable amounts of (often conflicting) information and will present complex material accurately, clearly and convincingly, both orally and in writing.

Such skills are essential in a wide range of careers – including commercial management and administrative roles in the public, private and charitable sectors. As a result our graduates enter a variety of careers: finance; management; information; education; human resources; media; marketing; and legal services.

You can also make direct use of your knowledge of history in certain sectors including publishing, information management, archives and museums, or by engaging in further research.

The quality of the teaching really is outstanding. All of the lecturers are so approachable and happy to help. Being taught a specific topic by a leader in their field really is very inspiring. There is such a wide range of academic specialists here that, whatever your interests, there'll almost certainly be an expert in your chosen area.



Rich
History BA Honours

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, including 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 topics spanning centuries and continents, such as: the Dark Ages; slavery and antislavery in the Atlantic world; society and politics in colonial India; Russia under Lenin and Stalin; 20th-century Cuba; 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; the English Revolution; the American Civil War; China in Revolution; May 1968; civil rights in America; or Nazi Germany.

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; slavery and antislavery in the Atlantic world; Japan since 1868; Russia under Lenin and Stalin; 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; contemporary Chinese politics; 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 also write a dissertation in either politics or history, developing skills in critical analysis, communication and research.

Law

Newcastle Law School offers you the highest quality legal education in a supportive and friendly environment. Enjoy all the benefits of being part of a close-knit community, sharing lectures, seminars and our specialist Law Library under one roof. Enhance your employability with an optional study year in Europe, meet prospective employers at our annual law careers fair, and develop a portfolio of professional skills such as client interviewing, client negotiations and legal argument through our annual mooting competition.

- ▶ **Qualifying law degree** – providing the first step to a career as a solicitor or barrister
- ▶ **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** – giving you the chance to work on real-world legal cases



There is a plethora of ways to get involved in the Law School, whether it is through competitions, sport, the North East Law Review or through the Eldon Society. I have had the opportunity to make great friends and be taught by inspiring professors, who have helped me make most of my time at Newcastle University.

Degrees	Page
Law LLB Honours	153

See page 232 for a full list of degrees by subject.

Qualifying Law Degree ✓

Our degree is recognised as a qualifying law degree by the Solicitors Regulation Authority and The Bar Council. 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.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Law LLB Honours

A levels: AAA excluding General Studies.

International Baccalaureate: A minimum of 34 points, with three subjects at Higher Level grade 6 or above.

League Table Ranking

As the North East of England's longest established Law School, Newcastle is highly regarded for its teaching of law. We achieved an impressive overall student satisfaction score of 91 per cent in the *National Student Survey 2015*. We also rank in the top 20 universities in *The Times/Sunday Times University Guide 2016*, *The Guardian University Guide 2016*, and *The Complete University Guide 2016*.

Study Abroad ✈

Students can broaden their academic experience by applying to join our qualifying Law (European Legal Studies) degree at the end of their first year of the LLB Honours degree. This four-year degree involves spending your third year studying law at one of our European partner universities in Belgium, the Netherlands, Spain, Norway or Denmark. 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: Law LLB Honours (European Legal Studies). Places are available on a competitive basis.

Careers

Many of our graduates choose to pursue a legal career and you will receive plenty of support from Newcastle Law School and the University's Careers Service to prepare for this.

A law degree also provides you with skills and confidence to succeed in any career; skills such as a capacity for logical and critical thought, excellent communication, and the ability to make a persuasive argument. As a result, our graduates have also gone on to careers in areas including marketing, accountancy, sales and the civil service.

Law

Law LLB Honours | M101 | 3 or 4 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 pathway spend a year studying law at one of our European partner universities. See Study Abroad, left.

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 or complete your own research project.

Marine Sciences

Studying marine sciences at Newcastle equips you for a profession in a growing job sector. Climate change, sea-level rise, pollution and overexploitation are just some of the issues challenging our ability to manage our oceans sustainably. Newcastle University, being just 20 minutes from the North Sea coast, offers unrivalled opportunities to experience a range of coastal habitats, sea birds and marine mammals. Our degrees take you from marine microbes to whales as you gain a complete understanding of how marine life is affected by the physical and chemical environment.

- ▶ **Gain practical experience** – we put a strong emphasis on developing your practical skills through regular laboratory and field classes
- ▶ **Develop seagoing skills on our research vessel** – including taking plankton hauls, seabed surveys and experimenting with the latest oceanographic technology
- ▶ **Work in dedicated, specialist facilities** – our Dove Marine Laboratory (on the coast, 20 minutes from Newcastle city centre) has aquarium facilities, specialised laboratory space and easy access to a varied coastline
- ▶ **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 great whales
- ▶ **See marine management in action** – through our close links with industry and government agencies
- ▶ **Boost your CV with a work placement** – available as part of our unique marine-specific graduate employability skills module

Degrees	Page
Marine Biology BSc Honours	155
Marine Biology and Oceanography BSc Honours	156
Marine Zoology BSc Honours	156
You may also be interested in...	
Biology and Zoology	
Environmental and Rural Studies	
Marine Technology	

See page 232 for a full list of degrees by subject.

I love the options for travel to study the difference in marine life from around the world compared to the North Sea. Newcastle offers several field trips. Last year we went to the Millport Biological Station on the Isle of Cumbrae. This year I am on a field trip to Bermuda and conducting my dissertation in the Bahamas.



Emma
Marine Biology BSc Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Marine Biology BSc Honours Marine Biology and Oceanography BSc Honours Marine Zoology BSc Honours

A levels: AAB–ABB 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).

International Baccalaureate: 34–35 points 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.

League Table Ranking

Marine Sciences at Newcastle ranks in the top 200 universities in the world in the QS *World University Rankings by Subject 2015*.

Careers

The marine environment is a key part of the UK economy. It 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 with government agencies, like Natural England and the Joint Nature Conservation Committee; in coastal conservation and marine nature reserves; with the EU as scientific observers on fishing vessels; in environmental charities, raising awareness about marine issues, and more.

A significant area of employment is with environmental consultancy firms. The Natural Environment Research Council and Cefas are major employers of marine scientists wishing to pursue careers in research.

Our strong tropical expertise means we can support our graduates on the career ladder overseas in areas such as: helping developing countries grow tourism industries sustainably; coral reef conservation; and environmental education.

Marine Biology

BSc Honours | C161 | 3 years

This degree provides you with a comprehensive understanding of human interaction with the marine environment. It is the study of 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, and the plants, algae and cyanobacteria that provide the foundation of almost all marine food webs. You also 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 you 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 to 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 man-made structures into the marine environment. You gain practical experience through laboratory classes and fieldwork, including opportunities aboard the University's sea-going 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'll consider creatures of all types and sizes, from zooplankton to marine mammals and birds. The use of information technology and an appreciation of emerging issues in marine sciences are also important features of this year. You will also take up an internship with an outside organisation to gain practical experience.

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

We apply science and engineering principles in a marine context to study technologies operating on or in an ocean environment. You will study with a marine focus from the start, investigating a complete range of engineering subjects, which are applied to technologies including cargo ships, offshore platforms, cruise liners, racing yachts and offshore wind turbines. You will use our unique large-scale laboratories to help you learn and understand concepts taught in class. A marine technology degree gives you the first steps into a wide range of exciting career opportunities within the international maritime industry. You'll also gain international connections through our global community of staff and students.

- ▶ **Fast-track your career** – our professionally accredited degrees set you on the route to Chartered Engineer status – one of the world's best recognised professional qualifications
- ▶ **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 37-metre towing tank for ship model experiments
 - a wind-wave-current tank for simulating the complete marine environment
- ▶ **Network with professionals** – we offer networking opportunities through our close connections to industry and professional marine organisations
- ▶ **Join a vibrant global community** – we have staff and students representing over 50 nationalities, helping you to develop valuable international connections

Degrees	Page
Marine Technology with Marine Engineering	
BEng Honours	159
MEng Honours	159
Marine Technology with Naval Architecture	
BEng Honours	159
MEng Honours	159
Marine Technology with Offshore Engineering	
BEng Honours	160
MEng Honours	160
Marine Technology with Small Craft Technology	
BEng Honours	160
MEng Honours	160
You may also be interested in...	
Chemical Engineering	
Civil Engineering	
Electrical and Electronic Engineering	
Marine Sciences	
Marine Technology Foundation Year	
Mechanical Engineering	

See page 232 for a full list of degrees by subject.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All Marine Technology MEng degrees, pages 159–160

A levels: AAA 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.

International Baccalaureate: 37 points 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.

All Marine Technology BEng degrees, pages 159–160

A levels: AAB 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.

International Baccalaureate: 35 points 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.

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 50 for details.

Pre-Entry Mathematics Course

If you don't have the required mathematics qualifications for direct entry, you may be invited to take our Pre-Entry Mathematics Course. See page 50 for details.

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 (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, like an approved Master's degree.

Singapore Study Option (International Students)

Working with the Singapore Institute of Technology, Newcastle University offers full-time BEng Honours degrees in Marine Engineering, Offshore Engineering, and Naval Architecture in Singapore. www.ncl.ac.uk/singapore/study

DTUS Sponsorship

Our marine technology degrees are approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

Careers

With a marine technology degree from Newcastle University you are excellently placed to develop your career in an exciting direction either within the marine industry or in other disciplines such as mechanical engineering, finance and management.

A large proportion of marine technology graduates find employment in the ship and offshore construction industry or with shipping and offshore companies as engineering specialists or managers. There is a steady demand for highly 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 all aspects of marine technology 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.

We organise a marine careers fair every year, attracting large graduate recruiters such as Lloyd's Register, Babcock, BP, BAE Systems, and the Royal Navy, and have a dedicated website – www.onshoreandatsea.wordpress.com – with lots of information on work placements and graduate opportunities.

What You Will Study

All of our Marine Technology students study the same topics for the first two years (Stages 1 and 2), 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.

Core modules in Stage 3 and beyond are also shared by all of our Marine Technology students, together with specialist modules building on 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 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, opposite).

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 around the world safely and with minimum impact on the environment.

Continued overleaf.

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.

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 158).

Marine Technology with Offshore Engineering

BEng Honours | H355 | 3 years | [checkmark]

MEng Honours | H356 | 4 years | [checkmark]

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.

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 158).

Marine Technology with Small Craft Technology

BEng Honours | H520 | 3 years | [checkmark]

MEng Honours | H524 | 4 years | [checkmark]

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.

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 158).

Marketing

Marketing is a dynamic subject that is central to our lives in the 21st century. It embraces psychology and consumer behaviour, management and innovation, and enterprise and entrepreneurship. We work closely with industry to make sure our courses remain relevant in this fast-paced sector. You will gain significant real-world business experience through case study-led teaching and work placement opportunities, and enjoy the benefits of our strong links with globally recognised companies such as IBM, Disney, Nissan, Microsoft, L'Oréal and Siemens.

- ▶ Gain an industry-recognised degree – our degrees are professionally accredited so employers recognise the quality of your degree
- ▶ Develop skills with real-world relevance – learn in-depth theory, supported by case studies and project work, to help you understand its application in business
- ▶ Boost your CV with a work placement – gain real-world business experience by taking a year-long work placement in the UK or abroad, with the support of our dedicated Placement Officer
- ▶ Enjoy career planning support – including our dedicated Careers Adviser and annual Career Development Week, as well as support finding summer internships and part-time work
- ▶ Enjoy modern teaching and learning facilities – study in our £45 million Business School building in the heart of Newcastle's business district
- ▶ Be part of a thriving global community – enjoy our strong community spirit, with a dedicated Board of Students, year-round social programme and peer-mentoring scheme

London campus

We also offer an exciting opportunity to study International Marketing and Management at our new campus, close to London's financial district. Find out more on page 164.

Degrees	Page
Newcastle campus	
Marketing BSc Honours	163
Marketing and Management BA Honours	164
London campus	
International Marketing and Management BSc Honours	164
International Marketing and Management with Placement BSc Honours	164
You may also be interested in...	
Accounting and Finance	
Agri-Business Management	
Business Management	
Economics	
Food Marketing and Nutrition	
Modern Languages and Business Studies	

See page 232 for a full list of degrees by subject.

The great thing about studying marketing is that it opens up a number of career opportunities. I've represented Newcastle University in the finals of the Unilever Business Challenge and Ernst & Young used my video for promotional purposes. At the moment, I am seeking a placement in India to add an international dimension to my portfolio.

Bradley, Marketing BSc Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Marketing BSc Honours

Marketing and Management BA Honours International Marketing and Management BSc Honours (London campus) International Marketing and Management with Placement BSc Honours (London campus)

A levels: AAB. Any subject combinations accepted excluding General Studies. GCSE Mathematics and English (minimum grade B) required if not taken at A or AS level. See online for additional information about further GCSE (or equivalent) requirements.

International Baccalaureate: 35 points. Standard Level Mathematics or Mathematical Studies and English (Language and/or Literature) required at grade 5 if not offered at Higher Level. See online for additional information about further GCSE (or equivalent) requirements.

International students: For information about university preparation courses see page 49.

League Table Ranking

The quality of the marketing degrees at Newcastle is recognised with a top 5 ranking in *The Complete University Guide 2016*.

Professional Accreditation

Our Marketing BSc degree and Marketing and Management BA degree are professionally accredited by the Chartered Institute of Marketing (CIM) and meet the qualification entry criteria for the CIM's Chartered Postgraduate Diploma in Marketing.

Our Marketing BSc degree is also accredited by the Institute of Direct and Digital Marketing, conferring eligibility for our graduates to sit the examinations for the Certificate in Direct and Digital Marketing Principles.

Careers

We provide an extensive range of opportunities to help you develop personal, employability and enterprise skills that will give you a real edge in the employment market.

You may choose to:

- spend a year on a work placement in a UK business, gaining business experience (see opposite)
- study abroad, to add an international dimension to your degree (see opposite)
- take an optional Career Development Module, gaining academic credit for work in a local school, volunteering activities or a part-time job

We also host a Career Development Week every year, which is designed to help you improve your employability skills, meet potential employers and explore possible careers.

The success of our graduates is reflected in the globally recognised list of companies within which a number have found employment, including: Ipsos MORI, L'Oréal, Accenture, Media Comm, Microsoft, Sainsbury's, Von Essen Hotels, Shell, and HSBC Bank International.

Work Placement

Students at both campuses can take an optional year-long commercial placement, which offers invaluable business experience.

For our Newcastle-based students, an optional year-long commercial placement offers invaluable business experience. We have a 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.

Our current interns are mainly acting as marketing assistants or assistant brand managers, many within large multinational corporations, undertaking projects which include:

- developing the social media strategy for HP Enterprise Group
- assisting in the running of events in retail stores for Apple
- building the new corporate website for Dr. Oetker
- providing support to the PR team within Barbour
- forecasting and analysing sales orders for the women's training department of Nike

Previous host companies also include: IBM, Disney, P&G, Nissan, Marks & Spencer, Unilever, Accenture, Cummins, GSK and Microsoft.

Students on the International Marketing and Management degree at our London campus also have the option of spending a year on a work placement. With a third of global companies headquartered in London, this is an excellent opportunity to gain insight into how businesses operate internationally. The Student Services team will help students arrange their year in work.

Study Abroad

Students at the Newcastle campus can study at one of our partner universities in Europe through the Erasmus exchange scheme between Stages 2 and 3. We currently have partners in Denmark, Finland, France, Holland, Norway, Spain and Sweden.

Marketing

BSc Honours | N500 | 3 or 4 years

Marketing in the 21st century has become a dynamic and fast-paced activity that is constantly evolving. It is now an integral part of many organisations' strategies. Our degree reflects this evolution, and is constantly reviewed to make sure it remains relevant, offering a range of options.

Our degree is vocationally orientated: we cover the theory in depth and then apply it to the real world either by case studies that we research ourselves or through applied student projects.

Stage 1: We introduce you to core marketing and management knowledge and skills considered essential for a career in business. These include: consumer behaviour; management and organisation; quantitative techniques necessary for modern business decision making, as well as business emergence, development and growth in a globalised economy. This Stage is taught in conjunction with our Marketing and Management BA Honours degree.

Stage 2: Core topics include: market research methods; marketing communications; and strategic marketing. Optional topics cover areas such as: global marketing; services marketing; economics; statistics for marketing and management; enterprise and entrepreneurship; and business Spanish.

Work placement/study abroad (optional): You may choose to spend the year between Stages 2 and 3 working in the UK or studying outside the UK on a 12-month placement (see left).

Stage 3: Advanced modules include 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 they are currently experiencing. Options include advertising and integrated brand promotion, cultural and heritage marketing, direct and digital marketing, and business Spanish.



Marketing and Management

BA Honours | NN52 | 3 or 4 years |   

This degree provides a broad understanding of business concepts and contemporary marketing theory and practice. It is vocationally orientated, and gives you the chance to apply theory to practice through practical projects, consultancy, real-life business start-ups, as well as an optional work placement.

The marketing element will provide you with the relevant skills, knowledge and capabilities to become a professional marketer. The management element will provide you with the appropriate academic knowledge and practical skills to pursue a career in management or become an entrepreneur.

Stage 1: We introduce you to core marketing and management knowledge and skills. These include: consumer behaviour; management and organisation; quantitative techniques for modern business decision-making and business emergence, development and growth in a globalised economy.

Stage 2: Core topics include: operations and management; managing human resources; global marketing; and research methods. You can then choose from a portfolio of modules including: statistics for marketing and management; business enterprise; understanding work and organisations; marketing and communications; services marketing; strategic marketing; career development for second-year students; and business Spanish.

Work placement/study abroad (optional):

You may choose to spend the year between Stages 2 and 3 working in the UK or studying outside of the UK on a 12-month placement (see page 163).

Stage 3: You have a choice of completing a dissertation, exploring a management or marketing subject in depth, or undertaking a consultancy project, working with a real client to research and present recommendations to improve their business. Advanced modules cover topics such as management of creativity, design and innovation; direct and digital marketing; and advertising and integrated brand promotion.

You also have a wide range of optional modules such as: analytical techniques for marketing; cultural and heritage marketing; electronic business; management in practice; international human resource management; and career development for final-year students.

International Marketing and Management (London campus)

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.

You will be based at Newcastle University London – see page 24.

Students at the London campus, located in the central financial district, will benefit from exposure to a variety of global businesses, work placement opportunities and masterclasses delivered by industry professionals.

Stage 1: You're introduced to key concepts and methods. These include: critical perspectives on business growth; consumer behaviour; introduction to management and organisation; introduction to marketing; professional skills for marketing; and quantitative methods for 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 with an approved organisation. While on placement you will complete the following modules: international marketing and management placement and reflective report.

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 management or marketing dissertation or practical consultancy project.

Mathematics and Statistics

Study with the School of Mathematics and Statistics at Newcastle and enjoy flexibility, research-informed teaching and a state-of-the-art learning environment. Tailor the combination of pure mathematics, applied mathematics and statistics content to suit your interests. Explore new and exciting areas of study through topics that are closely linked to our research from quantum mechanics to biostatistics. Benefit from employment workshops, Career Development Modules and a strong emphasis on employability skills that will open the door to a wide range of careers.

- ▶ **Explore topics shaped by our research expertise** – enjoy research-informed teaching 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 School** – including a buddy scheme to help the transition to university, and small group teaching
- ▶ **See where your interests lie** – our integrated teaching programme allows transfer between our degrees if your interests change
- ▶ **Spend a year in industry** – gain valuable work experience with an optional year in industry (BSc degrees only)
- ▶ **Enhance your employability** – develop transferable employability skills including project management (group project), report writing and presentation skills, supported by employment workshops
- ▶ **Be part of a vibrant community** – our highly active student mathematics society (MathSoc) is sponsored by KPMG and the Institute of Mathematics and its Applications, and organises social and professional events
- ▶ **Access scholarships** – a range of subject scholarships and bursaries is available, based on A level performance (or equivalent)

Degrees	Page
Accounting and Mathematics BSc Honours	167
Economics and Mathematics BSc Honours	167
Mathematics BSc Honours	167
Mathematics MMath Honours	167
Mathematics and Psychology BSc Honours	168
Mathematics and Statistics BSc Honours	167
Mathematics and Statistics MMathStat Honours	167
Mathematics with Finance BSc Honours	168
Mathematics with Management BSc Honours	168
Statistics BSc Honours	167
You may also be interested in...	
Accounting and Finance	
Computer Science	
Economics	
Geographic Information Science	
Mathematical Sciences Foundation Year	
Physics	
Surveying and Mapping Science	

See page 232 for a full list of degrees by subject.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All Mathematics and Statistics BSc Honours degrees, pages 167–168*

A levels: AAB or A*BB or A*AC including at least grade A in Mathematics and excluding General Studies.

International Baccalaureate: 35–37 points with Mathematics grade 6 or above at Higher Level.

*Except Mathematics and Psychology BSc Honours (see below).

Mathematics MMath Honours/Mathematics and Statistics MMathStat Honours

A levels: AAA or A*AB including at least grade A in Mathematics and excluding General Studies.

International Baccalaureate: A minimum of 37 points with Mathematics grade 6 or above at Higher Level.

Mathematics and Psychology BSc Honours

A levels: AAB–ABB including grade A in Mathematics and excluding General Studies.

International Baccalaureate: 35–37 points with Mathematics grade 6 or above at Higher Level.

Foundation Year

If you do not have the right mathematics qualifications for direct entry you may be eligible to take our foundation year. See page 50.

League Table Ranking

Mathematics and Statistics at Newcastle achieved an impressive 95 per cent overall student satisfaction score in the *National Student Survey 2015*. We also rank 11th overall in the UK for research (*Research Excellence Framework 2014*).

Professional Accreditation

Our statistics degrees are professionally accredited by the Royal Statistical Society.

At the time of publication (January 2016), our Mathematics and Psychology BSc Honours degree has been submitted for accreditation by the British Psychological Society (BPS). Please check our website for up-to-date information: www.ncl.ac.uk/undergraduate/degrees

Study Abroad

UK and EU MMath and MMathStat students have the opportunity to gain an international perspective on the subject by taking part in a study abroad exchange.

BSc or MMath/MMathStat?

We offer our degrees at two levels:

- Bachelor of Science (BSc) – three years of study
- Master of Mathematics (MMath) or Master of Mathematics and Statistics (MMathStat) – four years of study – 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 at any time from the end of Stage 1 to the start of the Stage 3 Semester 2 exams, if 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.

DTUS Sponsorship

Several of our degrees (G100/GG13/GL11/G1N2) are approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

Careers

Mathematicians and statisticians have always been highly valued by employers for their analytical and problem-solving skills, and ability to think logically and quantitatively. In addition, our degrees equip you with key employment skills such as communication, teamwork, planning and organisation.

There are some careers for which a degree in mathematics is usually required: teaching mathematics; statistical work; actuarial work; some research and development; and some areas of computing.

Mathematics graduates are also strong candidates in sectors such as: management; finance; accountancy; information technology; logistics; and transportation. These degrees can also lead on to PhD, MSc and PGCE courses.

What You Will Study

Studying mathematics and statistics at university builds upon the knowledge that you have gained at school/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 degrees incorporate a common set of core modules for the first two years, covering pure mathematics, applied mathematics, algebra, probability and statistics. In Stage 1 these cover topics such as: analytical geometry; foundations of and modelling with differential equations; number systems; and linear algebra.

These core modules account for two thirds of Stage 1 modules for Single Honours students and students studying mathematics and statistics as a major subject. Joint Honours students study fewer mathematics and statistics modules, which gives them the chance to dedicate half of their time to topics in their complementary subject.

Core modules account for most of Stage 2 for most students and cover topics such as: 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 major subject, and Joint Honours students, study most of these topics, focusing on applied mathematics and statistics.

Accounting and Mathematics

BSc Honours | NG41 | 3 years

This degree is part of our Joint Honours in Science scheme. You can find a detailed description and entrance requirements in the Accounting and Finance section on page 54.

Economics and Mathematics

BSc Honours | GL11 | 3 years

This degree is part of our Joint Honours in Science scheme. You can find a detailed description and entrance requirements in the Economics section on page 119.

Mathematics

BSc Honours | G100 | 3 or 4 years | 

MMath Honours | G103 | 4 years | 

Mathematics and Statistics

BSc Honours | GG13 | 3 or 4 years | 

MMathStat Honours | GGC3 | 4 years | 

Statistics

BSc Honours | G300 | 3 or 4 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 turbulence, quantum mechanics, time series and forecasting, 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.

BSc students have the opportunity to spend a year in industry between Stages 2 and 3. There is also flexibility at each Stage to choose topics from other areas of the University, for example, accounting, music, a foreign language or another science.

168

M

Mathematics and Psychology

BSc Honours | CG81 | 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.

This degree is part of our Joint Honours in Science scheme. You benefit from expert teaching in two Schools and receive outstanding support to help you settle into both.

You study core topics in mathematics and statistics, see What You Will Study, page 167. This is complemented at each Stage with topics from our Single Honours degree in Psychology, see page 205.

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 develop your own project topic or focus on your own career development.

Mathematics with Finance

BSc Honours | G1N3 | 3 or 4 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 167.

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.

 **Work placement** (see page 40)

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.

You have the opportunity to spend a year in industry between Stages 2 and 3. 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.

Mathematics with Management

BSc Honours | G1N2 | 3 or 4 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 167.

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.

Mechanical Engineering

Mechanical engineers use science and mathematics to create new products, materials and manufacturing techniques. They're in high demand worldwide, so our degrees can lead to well-paid professional careers. Our degrees cover everything from robotics and railways to low-carbon transport and biomedical engineering. We work closely with industry to prepare you to meet the challenges of engineering in the real world and our research expertise is internationally recognised. So we're the perfect place to kick-start your career in this exciting field.

- ▶ **Fast-track your career** – choose an MEng degree to put yourself on the fast-track to chartered engineer status – one of the world's best recognised professional qualifications
- ▶ **Study at the cutting edge** – our internationally recognised research expertise feeds into your teaching. Our research centres include: NewRail for railway design; Design Unit Gear Technology Centre for gears and drive systems; UK National X-ray Photoelectron Spectroscopy Centre NEXUS for surface analysis; and the Sir Joseph Swan Centre for Energy Research, exploring alternative energy
- ▶ **Experience engineering in practice** – through study visits to factories 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** – work on industry-based projects to help solve real-world engineering problems and learn from lecturers with great industry insight
- ▶ **Enjoy state-of-the-art facilities** – get your career off to the best start using our high-quality facilities and equipment, including: 3D motion capture; artificial joint testing; nano-measurement; engine testing; robotics; microelectromechanical systems; railway systems; composite materials; fire testing; gear manufacture and testing; X-ray Photoelectron Spectroscopy; CAD; and rapid prototyping

Degrees	Page
Mechanical Engineering	
BEng Honours	172
MEng Honours	172
Mechanical Design and Manufacturing Engineering	
BEng Honours	172
MEng Honours	172
Mechanical and Low Carbon Transport Engineering	
MEng Honours	173
Mechanical Engineering with Biomedical Engineering	
MEng Honours	173
Mechanical Engineering with Mechatronics	
MEng Honours	173
You may also be interested in...	
Chemical Engineering	
Civil Engineering	
Electrical and Electronic Engineering	
Marine Technology	
Mechanical Engineering Foundation Year	
Physics	

See page 232 for a full list of degrees by subject.



Find more information on our degrees
www.ncl.ac.uk/undergraduate

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

All Mechanical Engineering MEng degrees, pages 172–173

A levels: AAA 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) required if not offered at A or AS level.

International Baccalaureate: 37 points 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.

All Mechanical Engineering BEng degrees, pages 172–173

A levels: AAB 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) required if not offered at A or AS level.

International Baccalaureate: 35 points 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.

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 50 for details.

Pre-Entry Mathematics Course

If you don't have the required mathematics qualifications for direct entry, you may be invited to take our Pre-Entry Mathematics Course. See page 50 for details.

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.

Professional Accreditation

Our degrees are professionally accredited by the Institution of Mechanical Engineers (IMechE) and 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, like 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.

Singapore Study Option (International Students)

Working with the Singapore Institute of Technology, Newcastle University offers a full-time BEng Honours degree in Mechanical Design and Manufacturing Engineering in Singapore. www.ncl.ac.uk/singapore/study



Students take part in the Formula Student competition.

Careers and employability

The majority of mechanical engineering 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 wide range of sectors, including: transport and logistics; health; defence; manufacturing; automotive; and renewable energy, amongst others.

We take particular care to introduce you to the engineering industry by using real examples, industrial projects, factory visits and even mock interviews. Perhaps because of this, our graduates have an excellent track record in securing well-paid jobs. For example, the starting salary for our recent Mechanical Engineering MEng Honours graduates was £27,000 (DLHE survey 2013–14). Some companies have been very disappointed to find that we simply had no more graduates available for their employment!

You develop advanced technical and practical expertise to prepare you for success as a mechanical engineer. However, all our degrees are also designed to help you develop key transferable skills that are attractive in any graduate career. These include: analytical skills; computer modelling and problem solving; project working, both as part of a team and on your own; communication with others; planning and time management; and computer literacy.

The excellent analytical and problem-solving skills our students develop make our graduates very attractive to employers in finance, business consultancy and public services.

DTUS Sponsorship

Our mechanical engineering degrees are approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

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 per cent); engineering design and manufacturing (20 per cent); engineering mathematics (18 per cent); and management and professional skills, such as computing and enterprise (12 per cent).

We place a strong emphasis on analytical engineering science and technical fundamentals, which require an ability to apply core mathematical skills.

Your timetable typically includes:

- 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.



Find more information on our degrees
www.ncl.ac.uk/undergraduate

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, page 171.

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

BEng Honours | HH73 | 3 years | ✓

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.

These degrees provide 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, page 171.

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, and design of improved rail vehicle suspension and of an auto-coupler remover.

I chose Newcastle University because it is in a vibrant city, with good industry links in engineering. It is also a multicultural city with really friendly people and great nightlife. My course offers industry-relevant modules and has a great support network – staff are prepared to go the extra mile.

Mechanical and Low Carbon Transport Engineering

MEng Honours | H390 | 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, page 171.

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.

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. Not only are new artificial joints being designed and others investigated, new materials to assist in the repair of the soft tissues are also under development as is the effectiveness of rehabilitation treatment.

This degree will equip you to work in a range of jobs in industries supporting the health sector, or in that sector itself.

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 171.

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 Mechatronics

MEng Honours | H3H6 | 4 years | ✓

Mechatronics represents a fusion of electrical and 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, from smartphones to car stability control, and from robots to T-shirt printing.

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 171.

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.

Media, Journalism and Film Practice

Study at Newcastle and you will gain an in-depth understanding of the diverse and changing ways in which ideas, ideologies and information are created, managed, promoted, circulated and consumed through a variety of media, be it the mass media, social media or film. The quality of our media provision is indicated by a number of independent ratings, including our top three ranking in *The Times/Sunday Times University Guide 2016* and our 96 per cent overall student satisfaction score in the *National Student Survey 2015*.

- ▶ **Immerse yourself in academic theory** – we offer an academically rigorous study of media, culture, journalism and film-making in all its forms
- ▶ **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 and more
- ▶ **Receive tuition from academic and industry experts** – learn from academics who are research active and internationally rated in their field, as well as industry professionals
- ▶ **Boost your CV through student media** – 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 in the past five years
 - student-run radio and television stations
- ▶ **Benefit from our media links** – we have excellent links with the local media and cultural industries. Newcastle has a vibrant emerging media industry in the city, fuelled by skilled graduates

Degrees	Page
Film and Media BA Honours	176
Film Practices BA Honours	176
Journalism, Media and Culture BA Honours	177
Media, Communication and Cultural Studies BA Honours	177
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	

See page 232 for a full list of degrees by subject.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Film and Media BA Honours Film Practices BA Honours

A levels: ABB.

International Baccalaureate:

A minimum of 32 points.

Journalism, Media and Culture BA Honours Media, Communication and Cultural Studies BA Honours

A levels: AAB.

International Baccalaureate:

A minimum of 34 points.

I chose my course as an alternative to studying journalism at other universities. 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

League Table Ranking

The quality of the Media experience at Newcastle is recognised by consistently high rankings in the major league tables. We are ranked 3rd in the UK in *The Times/Sunday Times University Guide 2016*. We also achieved a very impressive 96 per cent overall student satisfaction score in the *National Student Survey 2015*, ranking us 7th in the UK. Over 80 per cent of our research is 'world-leading' or 'internationally excellent' (*Research Excellence Framework 2014*).

Careers

Careers in communications, public relations, journalism, media planning, film-making, broadcasting and advertising are the most popular choices for media, journalism and film practice graduates. However, you will develop a variety of skills that will be beneficial to any organisation, such as: critical analysis; research; teamwork; flexibility; a creative and independent approach to tasks; familiarity with multimedia technology; and the ability to work to a brief and meet deadlines.

You will be exposed to a broad commercial and cultural awareness of the media and creative industries, both from academic staff and media practitioners. Some employers are actively involved in work-related course projects and modules. You will also have the chance to build up a portfolio of industry-relevant experience, which could provide a platform to careers in the media industry, through engagement with our student newspaper, radio or TV stations.

Film and Media

BA Honours | P303 | 3 years

If you're interested in developing the practical skills and academic knowledge to produce documentary film, this innovative degree is for you. You'll gain a firm academic foundation in the issues and current debates in media and cultural studies. You'll also learn to use digital technologies creatively, to develop your film-making experience, focusing on documentary and non-fiction genres. You will be taught by renowned scholar-film-makers and supported by excellent technicians in a new state-of-the-art facility, CultureLab.

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 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 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 film 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 film-making skills acquired in Stage 1 and undertake more complex and advanced film-making exercises to prepare you for Stage 3, where you will make two films: a self-shot short documentary film and a dissertation documentary film. You also learn about other aspects of independent documentary film production, such as distribution and dissemination.

The film practice elements will be complemented by a continuing engagement with the history of documentary cinema, all underpinned by regular film screenings. The integration of film theory and practice will be a key feature of the degree. You will also be able to take modules that will contextualise your film practice within the broader media and creative industries.

Film Practices

BA Honours | P313 | 3 years

If you're interested in developing the practical skills and academic knowledge to produce documentary and short fiction films, this innovative degree is for you. You'll gain a firm academic foundation in the issues and current debates in world cinema and film history. You'll also learn to use digital technologies creatively, to develop your film-making experience. While the focus of our Film and Media degree is documentary film-making, set within a critical study of media, culture and society, our Film Practices degree extends beyond documentary, with an additional focus on short fiction and experimental film-making and set within a study of the film industries.

You will be taught by renowned scholar-film-makers and supported by excellent technicians in a new state-of-the-art facility, CultureLab.

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 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 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 to prepare for Stage 3, where you will make two films: a self-shot short film and a dissertation film. You will 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 the history of world cinema and film theory, all underpinned by regular film screenings. The integration of film theory and practice will be 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.

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: You are introduced to the principles and practices of multiplatform journalism, focusing on the skills needed to master the 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 start learning 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 (print, magazine, online, and elements of broadcast), learn about regulation and legislation relevant to the media industries, and the ethical norms and practices for journalists.

At the end of the third year, a research dissertation and a complex multimedia package will integrate the knowledge and skills 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.

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 and 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; and globalisation of the media.



Medicine

Medicine at Newcastle is consistently one of the most highly regarded medical degrees in the UK. Our courses offer clinically focused teaching by highly trained staff and our integrated approach means you'll experience contact with patients from your very first year. We are a Regional Medical School – with partnerships with Durham University and the NHS within the Northern Region – so you'll have excellent clinical training opportunities. You'll experience diverse placements across the region-wide infrastructure of acute hospital and general practices, which supports 3.5 million patients. You'll graduate with eligibility for registration with the General Medical Council, and the knowledge, skills and professional attributes to begin your career as a junior doctor.

- ▶ **Choose innovation and excellence** – an innovative case-led curriculum, designed to meet the needs of tomorrow's doctors
- ▶ **Tailor your degree to your interests** – Student Selected Components introduce you to clinical research methods and allow in-depth study of topics and specialties of your choice
- ▶ **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 an extensive medical library and dedicated computer clusters
- ▶ **Conduct research at a Centre for Excellence** – we're a Centre of Excellence in translational (so-called 'bench-to-bedside') research for students interested in pursuing a period of research
- ▶ **Study abroad** – take an eight-week elective period, giving you the chance to study medicine almost anywhere in the world
- ▶ **Gain an additional qualification** – undertake an intercalated year and gain an additional qualification, such as a Master's degree
- ▶ **Join our supportive community** – you'll be partnered with a 'family' of more senior students who can offer advice and support

Degrees	Page
Medicine and Surgery MB BS	181
Medicine and Surgery (Accelerated Programme) MB BS	182
You may also be interested in...	
Biomedical and Biomolecular Sciences	
Chemistry	
Dentistry	
Nutrition and Food	
Psychology	
Speech and Language Sciences	

See page 232 for a full list of degrees by subject.

An aspect I really enjoy about the programme is the early clinical experience. We have GP visits, hospital visits, and projects with patients from the community which allow us to learn, early in our degree, how to interact with patients in a professional and respectful manner.

Danyal, Medicine and Surgery MB BS

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Medicine and Surgery MB BS

A levels: AAA excluding General Studies and Critical Thinking. If Chemistry and Biology are not offered at A level (grade A) then both subjects are required at AS level (grade A) or GCSE (grade A) in Chemistry and Biology or in Dual Award Science. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. 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 taken into account.

International Baccalaureate: A minimum of 38 points including a minimum of grade 5 in all subjects with Higher Level grade 6 in Chemistry or Biology. Combinations including two sciences, Mathematics and English are desirable.

Graduate entry: Graduate applicants must have achieved, or expect to achieve, at least an upper-second-class Honours degree in any discipline or an Integrated Master's degree.

Medicine and Surgery (Accelerated Programme) MB BS

Graduate entry: 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 right.

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 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

We would normally expect all applicants to have achieved their A levels on their first attempt. Those who wish resits to be considered must provide information on the extenuating circumstances they wish to be considered. Supporting evidence must be provided from your school or GP.

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 must provide proof of their immunisation status on entry. Immunity against the following is required: polio; tetanus; varicella (chicken pox); diphtheria; measles; mumps; rubella; 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. 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.



Find more information on our degrees
www.ncl.ac.uk/undergraduate

League Table Ranking

Medicine at Newcastle is consistently one of the most highly regarded medical degrees in the UK. We rank:

- among the best British universities for medicine in *The Times/Sunday Times University Guide 2016* and *The Complete University Guide 2016*
- in the top 10 in the UK for overall student satisfaction, with a score of 95 per cent in the *National Student Survey 2015*
- in the top 150 universities in the world in the *QS World University Rankings by Subject 2015*

The excellence of our programmes has been confirmed by the General Medical Council (GMC). Our research ranked 9th overall in the UK in the Clinical Medicine category (*Research Excellence Framework 2014*).

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).

Programme Organisation

A100 is a five-year degree and is appropriate for students post-A level or equivalent. There are 219 places available at Newcastle University and 99 places at Durham University (Queen's Campus, Stockton).

A101 is an accelerated four-year degree for applicants who already have a first degree or relevant experience (see Entry Requirements, page 179). There are 25 places available, all at Newcastle University.

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).

If you are allocated a place at Durham University (Queen's Campus, Stockton), you will be registered with Durham University for the first two years of your degree. This means you will be eligible for the support offered by Durham University, but will not be eligible for Newcastle University-specific financial support for the first two years.

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 2016.

A100 applicants may apply to Newcastle University and choose either the Newcastle or Durham option, or may use two choices to apply to both campuses. There are 219 places at Newcastle and 99 places at Durham.

- If you wish to be considered for study at Newcastle University indicate with N
- If you wish to be considered for years 1 and 2 study at Durham University (Queen's Campus, Stockton), please indicate with D

Please note that each will be considered as a separate choice. If a campus is over-subscribed we may offer you an opportunity to be considered at the alternative campus.

Both Newcastle University and Durham University are 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. Applicants applying with non-standard qualifications should contact mbbs.admissions@ncl.ac.uk for advice.

For further information on admissions to our medical programmes please see: www.ncl.ac.uk/mbbs/admissions

Teaching Style

At Newcastle, 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.

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 wish 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 BSc degrees in biomedical and biomolecular sciences (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.

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.

Careers

After completing your University degree, you are normally entitled to provisional registration with the 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. www.ncl.ac.uk/mbbs/admissions

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 (www.mmc.nhs.uk), 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.

International Students

You are currently permitted to undertake the full Foundation Programme, ie the first two years following graduation (see Careers, above), but you are normally required to return to your home country to complete further specialty training. For international students interested in opportunities to study at Newcastle University's NUMed Malaysia campus, visit www.ncl.ac.uk/numed

Medicine and Surgery

MB BS | 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. From 2017 entry, students will benefit from a course that has undergone extensive review. 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 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 in learning and teaching 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 are integrated into a single common pathway for the final three years of training.

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. You will not normally be attached to the same Base Unit for Year 3 as you are for Years 4 and 5. Base Units include primary, secondary and community-based organisations such as palliative care centres.

 Continued overleaf.

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 the 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. 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 between hospitals and community-based healthcare providers. 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 | A101 | 4 years | ✓

The 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 2016.

Year 1 spans 45 weeks with the course of study 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 page 180).

Years 2–4 of the Accelerated programme are identical to Years 3–5 of the five-year degree (see page 181).

The teaching quality is brilliant. The staff are very good at making themselves available if there are any difficulties. The Medical School offers us many opportunities to get out there and meet real patients.

Shayna, Medicine and Surgery MB BS

Modern Languages

Choose from an impressive range of East Asian, European and Latin American languages, countries and cultures at Newcastle, in flexible combinations to suit your interests. Develop your language skills through our expert teaching and high-tech facilities, including our state-of-the-art language laboratories and award-winning Language Resource Centre. Get your career off to the best possible start with opportunities such as our Student Ambassador Scheme and our wide range of year-abroad placements, and get experience of translating for local organisations through our Real Translation programme.

- ▶ **Enjoy quality teaching and research** – we've taught languages here for over a hundred years and our long history is testament to the quality of our teaching and research
- ▶ **Choose modules to suit you** – enjoy a broad choice of options about the modern cinema, history, politics, society, linguistics and literature of your chosen countries and cultures, underpinned by cutting-edge research
- ▶ **Boost your CV with work or study abroad** – spend a year studying or working abroad to develop near-native fluency – our academic and professional networks around the world provide excellent opportunities
- ▶ **Use our award-winning Language Resource Centre** – enjoy free access to computer, television and DVD resources in over 50 languages
- ▶ **Pair up with a native speaker** – develop your conversational skills through our Tandem Learning Scheme, which pairs you with a native speaker of your chosen language(s)
- ▶ **Settle in with fantastic support** – including a peer-mentoring scheme, personal tutor and student societies

For Single Honours
French or German, see Modern Languages BA Honours (page 186)

Degrees	Page
Modern Languages BA Honours	186
Modern Languages and Business Studies BA Honours	186
Modern Languages and Linguistics BA Honours	186
Modern Languages, Translation and Interpreting BA Honours	187
Chinese Studies or Japanese Studies BA Honours	187
French (see Modern Languages BA)	186
German (see Modern Languages BA)	186
Spanish, Portuguese and Latin American Studies BA Honours	187
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	

See page 232 for a full list of degrees by subject.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Chinese Studies or Japanese Studies BA Honours

A levels: ABB–BBB. GCSE grade B in any language required.

International Baccalaureate: 32 points including a foreign language at Standard Level (grade 5) if not offered at Higher Level.

Modern Languages BA Honours Modern Languages and Linguistics BA Honours

A levels: ABB–BBB including French, German or Spanish.

International Baccalaureate: 32 points with Higher Level French or German or Spanish at grade 6 or above.

Modern Languages, Translation and Interpreting BA Honours

A levels: ABB including French, German or Spanish at grade A.

International Baccalaureate: A minimum of 32 points with Higher Level French or German or Spanish at grade 6 or above.

Modern Languages and Business Studies BA Honours

A levels: ABB–BBB including French, German or Spanish with GCSE Mathematics (minimum grade B). Where a candidate wishes to study a single language from beginners' level and is not studying an A level in a language then B in a language at GCSE is required.

International Baccalaureate: 32 points with Higher Level French or German or Spanish at grade 6 or above. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level. Where a candidate wishes to study a single language from beginners' level and does not have a language at IB Higher Level then Grade 5 in a language at IB Standard Level is required.

Spanish, Portuguese and Latin American Studies BA Honours

A levels: ABB–BBB including Spanish.

International Baccalaureate: 32 points, with Spanish grade 6 or above at Higher Level.

League Table Ranking

Modern Languages at Newcastle is highly regarded, ranking in the top 10 in the UK for French, German and Spanish in *The Times/Sunday Times University Guide 2016*. We also rank 6th in the UK for research power (Research Excellence Framework 2014).

I feel I have made huge developments, personally and academically, being a Modern Languages student at Newcastle. The Language Resource Centre is invaluable and offers a wide range of resources for you to develop and practise your languages.

Clare, Modern Languages BA Honours

Careers

Language skills are highly valuable in many areas of employment – so a degree in modern languages can really help you stand out in the graduate market.

Our degrees and extracurricular opportunities also give you superior communication, presentation and time management skills, and prepare you to be an extremely versatile, flexible and adaptable employee – crucial in today's job market.

Your cross-cultural understanding and your communication skills will give you the ability to communicate across the world, and to become a valuable member of any internationally minded organisation. As business communication across Europe and the world grows, skills like these are ever more important, and can give you a real advantage when applying for a wide range of graduate jobs.

Year Abroad

All of our Modern Languages degrees include a compulsory year abroad.

Students studying a European language can: study at one of our partner universities; work as an English language assistant in a school (UK nationals only); do a work placement in a European business; or do a combination of these things (as long as they do not overlap).

Students of Chinese or Japanese spend the whole academic year studying at one of our partner universities in China or Japan.

If you're studying more than one language you usually divide the academic year between two countries where your chosen languages are spoken, although it may be possible to spend the whole year in one country. If you are studying three languages we encourage you to spend some time during the summer vacation in a country where your third language is spoken.

If Chinese or Japanese is one of your three languages, you will spend the academic year in China or Japan, and the School will subsidise an intensive language course in one or both of your additional languages during the preceding and/or the following summer vacation.

We offer lots of help to prepare you for your year abroad, including:

- Year Abroad briefings covering practicalities like insurance, visas and student safety
- a Tandem Learning Scheme, to practice conversation in your language(s)
- optional group sessions with a native speaker of your chosen language(s)
- free access to the Language Resource Centre for independent study
- a training course for language assistants

Our team of Year Abroad Officers will keep in close touch with you while you are abroad, and you will communicate regularly with your personal tutor via the web-based e-portfolio.

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, normally taught in our state-of-the-art language laboratories by a native or near-native speaker. You also complete grammar classes taught in English and independent study exercises, which you may carry out in the Language Resource Centre.

We help you become fully immersed in the cultures of the languages and countries you are studying. Alongside language teaching 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. Our lecturers are all engaged in research on the countries, continents and cultures they specialise in meaning 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 high fliers.

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.

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 choose one language at advanced level and one from beginners' level. Alternatively you can study a single language (this option is only available in French or German at present).

If you have two languages at A level, you can continue to study both languages at advanced level. Alternatively you can continue to study one language at advanced level and choose a second to study from beginners' level. Or you can 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; and 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 page 185.

Modern Languages and Business Studies

BA Honours | TN92 | 4 years |  

Graduates with this degree will be able to 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 relevant principles and practice of business management.

Your business management modules include topics such as organisational behaviour, marketing, human resource management, introductory economics, interpreting company accounts, and enterprise and entrepreneurship.

Your language choices are Chinese, French, German, Japanese, Portuguese and Spanish. Alongside language modules, you can choose optional modules in the culture and history of the countries where your chosen languages are spoken, or (for French, German and Spanish) the linguistics of your chosen language.

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). 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.

If you study two languages in your first year, you may reduce this to just one language for the remainder of your degree if you would like to.

For more information about what you will study each year and during your year abroad, see page 185.

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 page 185.

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 out of French, German and Spanish, then you follow pathways in Translation and Interpreting that will prepare you 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 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 page 185.

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).

Depending on your language experience on entry, you spend your third year at a university in China (Beijing, Shanghai, Chengdu, Hainan Island, Xiamen) or Japan (Tokyo, Akita, Osaka, Kyoto, Hiroshima, Sapporo or Fukuoka), where 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 page 185.

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 will also 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 at each Stage and during your year abroad, see page 185.

Music

Music at Newcastle recognises and celebrates the individuality of its students with degrees that offer a high level of flexibility and choice. The breadth of music we perform, compose, research and teach means you will have opportunities to study a range of topics and approaches including: analysis; composition (in its widest sense); cultural theory; ethnomusicology; historical studies; and performance, from medieval music through to contemporary music practices from the West and beyond.

- ▶ **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
- ▶ **Tailor your degree to suit your interests** – choose modules to suit your interests from across our suite of degrees, which spans a wide range of musical styles and approaches
- ▶ **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** – boost your skills and CV by helping organise our annual student-led Summer Music Festival

Degrees	Page
Contemporary and Popular Music BA Honours	190
Folk and Traditional Music BA Honours	190
Music BA Honours	191
Music BMus Honours	191
You may also be interested in...	
Combined Honours (Music, plus up to two other subjects)	

See page 232 for a full list of degrees by subject.

I was initially attracted to Newcastle due to the quality of the course and the teaching available. The course at Newcastle is extremely varied and allows you to specialise and experience lots of different types of music.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Folk and Traditional Music BA Honours

A levels: AAB–BBB ideally including Music (grade A in AS level Music may be considered but will depend on the combination of subjects/qualifications being studied).

International Baccalaureate: A minimum of 32–34 points with Music at Higher Level. Standard Level Music may be considered, but will depend on the combination of subjects being studied.

Additional Information: 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. Performance ability is a primary criterion for selection and applicants will need to produce appropriate evidence of performance skills achieved. All applicants who we consider to be suitable for the course will be interviewed and auditioned.

Music BA Honours

Music BMus Honours

A levels: ABB (for BA Honours) or AAB (for BMus Honours) including Music. Alternatively, for applicants with Grade 8 Associated Board or equivalent, BBB (for BA Honours) or ABB (for BMus Honours) including Music.

AS level Music may be considered, but will depend on the combination of subjects/qualifications being studied.

International Baccalaureate: A minimum of 32 points (for BA Honours) or 34 points (for BMus Honours) with Music at Higher Level. Standard Level Music may be considered (for BA Honours) but will depend on the combination of subjects being studied.

BTEC Level 3 Extended Diploma: In a music-related subject at overall DDD (for BA Honours) or D*DD (for BMus Honours) and ABRSM Grade 5 Theory in addition to the Diploma.

Additional Information: Applicants intending to take modules in performance should have passed Associated Board Grade 8 or the equivalent or be of a similar standard. Applicants may be invited to an interview and a short audition.

Contemporary and Popular Music BA Honours

A levels: ABB including Music, Music Technology, or another music-related subject or BBB plus Grade 8 Associated Board (Performance), Rock School or equivalent. Applicants should be practitioners in a type of contemporary or popular music.

International Baccalaureate: A minimum of 32 points 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.

Additional Information: Applicants may be invited to an interview and a short audition.

Study Abroad

If you want to add an international dimension to your studies, you can study abroad as part of your degree. We have links with a number of universities and conservatoires in Europe, North America, South America and Australia. For students on our four-year BMus degree, this is an integrated part of your degree programme.

Careers

Studying music at university is both intellectually and musically demanding. It requires you to engage in a broad range of practical and intellectual activities including performance, composition, improvisation, analysis, research and critical intellectual enquiry. We foster teamwork and initiative through participation in music ensembles, and communication skills through performance, presentations and written work. Music students require flexibility, self-discipline and good time management to attain high technical standards and to balance the demands of study, practice and performance.

Graduates who want to use their music degree in their work often progress to become self-employed musicians, performers, composers, teachers, academics, artistic managers, music therapists, studio managers or sound engineers. Other opportunities include arts administration, music production, specialist magazine journalism, music librarianship or music publishing.

The wide range of transferable skills that music graduates develop, however, means that they can easily move into the career or training pathways that are open to graduates of any discipline, for example, management, accountancy, law, events management, journalism and IT.

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 will study a fixed menu of modules that covers contemporary and popular cultural, theoretical and creative approaches. Our Stage 1 modules range across the 20th and into the 21st centuries, 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 such as contemporary composition, music enterprise, hip-hop, Indian music, and installation/art musics, alongside 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).

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 will 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'll 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 jazz through to iconic folk.

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.

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. We provide a range of optional modules in your final year linked to our world-leading research: tradition, learning and the community; black music; music in the Holocaust; composition; sound art; Indian music, and many others.

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 and sound art); performance; conducting studies; advanced harmony and counterpoint; our suite of practice-based modules in Indian, African, Caribbean and early music; and our vocationally oriented modules on teaching and enterprise.

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 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).

Stage 3 (BMus): BMus students spend a year abroad studying music at a partner institution with opportunities in Austria, Canada, Denmark, Finland, Germany, Ireland, Italy, Spain, Sweden and the USA. At present, we have links with a number of universities and conservatoires in Europe, 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).

Nutrition and Food

Our degrees incorporate the latest knowledge in diet and human health, consumer behaviour and marketing. They'll prepare you for a rewarding career in nutrition, where there is a sustained demand for graduates with specialist knowledge in areas such as food quality and safety, and the links between diet and health. Public interest in food, diet and health is at an all-time high, and the challenges and opportunities facing society and industry in this area make it a fascinating subject to study.

- ▶ **Learn in state-of-the-art specialist facilities** – including our Food and Consumer Research Facility (NU-Food) for practical classes, experiments and student research projects
- ▶ **Fast track your career with an industry recognised qualification** – our degrees are accredited by the Association for Nutrition for fast-track entry as a registered nutritionist (currently B4D6 and DB64 only)
- ▶ **Boost your employability with a work placement** – spend an optional year in industry, gaining valuable work experience to enhance your job prospects
- ▶ **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** – enjoy a wide-ranging curriculum that incorporates topics and expertise from across the University's Faculty of Science, Agriculture and Engineering, and Medical Sciences Faculty
- ▶ **Boost your CV with additional qualifications** – get recognised professional certification of your skills including a Food Hygiene Certificate and a City and Guilds of London Institute award

Initially I applied because Newcastle offers one of the only courses that combines nutrition and marketing modules, and has the opportunity to take a year out in industry. But I also fell in love with the city the first time I visited. It has a very friendly and safe atmosphere, with plenty to see and do, which definitely sparked my interest.

Degrees	Page
Food and Human Nutrition BSc Honours	194
Food Marketing and Nutrition BSc Honours	195
Nutrition and Psychology BSc Honours	195
You may also be interested in...	
Agri-Business Management	
Biology and Zoology	
Biomedical and Biomolecular Sciences	
Marketing	
Psychology	

See page 232 for a full list of degrees by subject.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Food and Human Nutrition BSc Honours

A levels: ABB–BBB normally including Biology and another science subject but excluding General Studies. Chemistry is preferred at A or AS level but is not essential. Home Economics/Food Technology will be considered instead of Biology at A Level. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Mathematics (minimum grade B) required if not offered at A or AS level.

International Baccalaureate: 32–34 points 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.

Food Marketing and Nutrition BSc Honours

A levels: ABB–BBB 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) if not offered at A/AS level.

International Baccalaureate: 32–34 points 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.

Nutrition and Psychology BSc Honours

A levels: AAB–ABB 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) are required.

International Baccalaureate: 35 points normally including Biology and two other subjects at Higher Level Grade 6 or above. Chemistry preferred at Higher Level but not essential. Mathematics or Mathematical Studies and Chemistry required at Standard Level grade 6 or above if not offered at Higher Level.

League Table Ranking

The Nutrition and Food degrees at Newcastle rank in the top 10 universities in the UK in *The Complete University Guide 2016* (in the Food Science category).

Professional Accreditation

Our Food and Human Nutrition (B4D6) and Food Marketing and Nutrition (DB64) degrees are professionally accredited by the Association for Nutrition. This means our graduates can apply for direct entry into the UK Voluntary Register of Nutritionists at Associate level and use the letters ARNutr after their name without undergoing further assessment. Our Food Marketing and Nutrition degree is also professionally accredited by The Chartered Institute for Marketing (CIM), which gives you the opportunity to gain professional qualifications through the CIM Graduate Gateway.

At the time of publication (January 2016), our Nutrition and Psychology BSc Honours degree has been submitted for accreditation by the Association for Nutrition (see above) and the British Psychological Society (BPS). Please check our website for up-to-date information.



Find more information on our degrees
www.ncl.ac.uk/undergraduate

Work Placement

All of our students may spend a placement year working in 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 work experience and life skills that will help you stand out from other food graduates in the marketplace.

The placement is a compulsory part of our Food and Human Nutrition degree and optional for the Food Marketing and Nutrition degree and the Nutrition and Psychology degree.

Our award-winning Careers Service and dedicated placement co-ordinator will provide you with training for preparing a CV, applying for jobs and undergoing an interview with your prospective placement host, as well as other support throughout the process.

There are placement opportunities in the UK and abroad. 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.

Your placement provides the basis for obtaining an award from the City and Guilds of London Institute (equivalent to NVQ Level 4) as evidence of the skills and experience gained on your placement.

Study Abroad

All Nutrition and Food students can spend a year between their second and third years taking part in a work placement. UK and EU students may choose to undertake this work placement abroad through the Erasmus scheme.

Careers

The demand for graduates with knowledge of nutrition and food provides a wide range of opportunities across the sector, as reflected in the increasing number of specialised degree programmes we offer in this area.

Typical careers include: product development; quality assurance or marketing in the food industry; as advisers in consumer groups in the food retail sector; with non-commercial bodies such as the Medical Research Council or the government; as advisers in the health sector; or in food and health journalism.

It's not only employers in the science sector that value the skills you learn at Newcastle; past graduates have forged careers in a wide range of areas including management, administration, accountancy, finance, teaching and the media.

Food and Human Nutrition

BSc Honours | B4D6 | 4 years |   

Scientific research has given us an excellent understanding of the fundamental aspects of nutrition, including what makes up a balanced diet, how our bodies use different foods, and how we can be confident that our food is safe to eat. 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 with modules in genetics, biochemistry, microbiology and physiology. You also explore current food and nutrition issues and the basics of food production and utilisation, including making visits to factories and kitchen outlets.

Stage 2: You continue to develop core knowledge of food science and human nutrition alongside some of the latest discoveries in nutrition through the experimental human nutrition module, in which you work in small teams to carry out investigations and produce a joint report. You will gain experience in how to design and carry out experiments involving people, and will also take part in a nutrition experiment yourself.

Work placement: You spend this year on a work placement in the UK or abroad. See left for details.

Stage 3: You consider nutrition and its relation to health and disease; the technologies used in the food industry; the significance of plants as food; and sports and exercise nutrition. 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. You also consolidate your research, report writing and presentation skills with seminars on current issues in food and nutrition.

Food Marketing and Nutrition

BSc Honours | DB64 | 3 or 4 years |   

This degree explores the application of food marketing and nutritional science to food markets, food consumers, diet, nutrition and health. Topics include: the structure of the food industry (which represents the largest manufacturing base in Europe); the links between diet and health; and the challenges of securing a globally sustainable, safe and nutritious food system. You also gain 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 food marketing and nutrition 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.

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 opposite.

Stage 3: The final year will challenge you to consider critically an array of contemporary food and nutrition issues and the technical, business, societal, ethical and regulatory factors that drive these debates. You study topics related to the procurement, manufacturing 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.

Nutrition and Psychology

BSc Honours | BC48 | 3 or 4 years |   

This degree is part of our Joint Honours in Science scheme. It allows you to specialise in these two complementary subjects, giving you breadth and depth in your study. There is considerable overlap between both subjects; 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.

We have an active system of student support in place with student buddies to guide you through the early weeks and a dedicated academic support team. Throughout your degree, you will also be individually supported by a personal tutor as well as advisers for both of your subject areas.

Stage 1: The first year provides the foundation for effective study throughout your degree. 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 will 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.

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 opposite.

Stage 3: You study advanced nutrition topics that build on what you have learned so far such as: sports and exercise nutrition; 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 develop your own project topic or focus on career development.



Philosophy

Philosophy, more than most subjects, opens up new ways of thinking and encourages openness and tolerance. It equips you with the skills to question, analyse and balance multiple – even opposing – points of view. Our degree is built around a solid core of philosophical thinkers and problems, but encourages flexibility through the opportunity to devote a third of your degree to other disciplines. Uniquely, students write an extended, context-based dissertation in each year bringing philosophy into dialogue with a personal topic of interest such as music, law or social issues. In the 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.

- ▶ **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, natural and social sciences, and the arts, giving you a rich and varied study experience
- ▶ **Develop your career plans** – we'll help you link your studies to your career plans and build a portfolio of relevant skills
- ▶ **Enjoy close interaction with teaching staff** – small group tutorials allow staff members to get to know you as an individual and help you shape your own learning agenda
- ▶ **Boost your CV with work experience** – gain academic credit for teaching in local schools or working in a local business
- ▶ **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

Degrees	Page
Philosophy BA Honours	197
You may also be interested in...	
Combined Honours (Philosophy, plus up to two other subjects)	

See page 232 for a full list of degrees by subject.

I went to look around several universities and various courses and as soon as I got off the train in Newcastle I knew it was the place for me. I love the people, they are super friendly and I felt so welcome here. The tutors on my course are superb and project work gives you the chance to be independent and creative.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Philosophy BA Honours

A levels: AAB–ABB. General Studies included.

International Baccalaureate: A minimum of 32 points, with three subjects at Higher Level grade 5 or above.

League Table Ranking

Philosophy at Newcastle is ranked in the top 10 universities in the UK in *The Times/Sunday Times University Guide 2016*. We also achieved a very impressive overall satisfaction score of 100 per cent in the *National Student Survey 2015*, ranking us 1st in the UK.

Careers

The study of philosophy helps you to develop a range of valuable transferable skills, including the ability to: analyse and construct sound arguments; think logically and critically about ideas and issues; communicate clearly and persuasively; and generate solutions to problems. You'll gain crucial employability skills sought by graduate employers such as: self-motivation and working independently; the ability to prioritise work and meet deadlines; flexibility and creativity; teamwork; and applications of information technology.

We encourage you to develop a personal portfolio of knowledge and skills in a field that best matches your interests and abilities. This will provide you with an opportunity to get acquainted with the work environment in an area of employment of interest to you. Our dissertation modules allow you to link your philosophical studies to a particular employment niche, such as publishing, advertising, law or education. This will help you stand out from other humanities graduates when looking for a job.

You also have the chance of gaining work experience as an accredited part of your studies – for example, teaching in local schools, and working in local businesses – and our students often use vacation periods to undertake internships.

Philosophy graduates have found work with almost every type of employer, including the NHS, civil service, law firms, charities, publishing and advertising. Some graduates also continue to postgraduate-level studies; popular choices include law, journalism and media.

Philosophy

BA Honours | V500 | 3 years |

Our degree gives you a thorough grounding in the main branches of philosophy in both the continental and analytic traditions, and also includes elements of non-western thought. You explore the relationship between philosophy and other areas of human endeavour, such as the arts, religion, and the 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 will cover topics in ethics, epistemology, the philosophy of religion, and existentialism, exploring issues such as the nature of freedom and the self, the existence of God, and the origin of our ethical values. You will 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.



Find more information on our degrees
www.ncl.ac.uk/undergraduate

Physics

Physics covers everything from the smallest particles to the entire cosmos, and includes fascinating topics such as the structure of the Universe, the Higgs Boson and the emergence of new materials. It is based on fundamental laws and concepts including elementary particles, fields, quantum theory, entropy and relativity. Our degrees provide theoretical study and practical lab work to ensure that you develop the scientific knowledge and highly regarded transferable skills to excel in whichever area you choose to work in. We aim to train the physicists of the future, ready to contribute to our understanding of the Universe and thrive in a wide range of careers.

- ▶ **Immerse yourself in fascinating topics** – engage with theories that address fundamental questions about the origin, development and future of our world
- ▶ **Enjoy fantastic facilities** – including fully refurbished physics laboratories, with high-performance scientific computing facilities
- ▶ **Get recognised** – 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** – we'll equip you with the practical and analytical skills required in a wide range of careers
- ▶ **Get industrial experience with international employers** – make the most of our links with companies like BAE Systems and Rolls-Royce
- ▶ **Become a physicist of the future** – learn the practical applications of physics in cutting-edge technologies and advanced engineering
- ▶ **Benefit from our interdisciplinary approach and the 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

Degrees	Page
Physics BSc Honours	199
Physics MPhys Honours	199
You may also be interested in...	
Chemistry	
Electrical and Electronic Engineering	
Mathematics and Statistics	
Mechanical Engineering	

See page 232 for a full list of degrees by subject.

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Physics BSc Honours

A levels: AAB including Mathematics and Physics but excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A levels, we require a pass in the practical element.

International Baccalaureate: 35–37 points with Mathematics and Physics at Higher Level grade 6 or above.

Physics MPhys Honours

A levels: AAA including Mathematics and Physics but excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A levels, we require a pass in the practical element.

International Baccalaureate: 37 points with Mathematics and Physics at Higher Level grade 6 or above.

Careers

A wide range of career destinations is available to our graduates, including finance, engineering, electronics, education, nanotechnology, renewable energy, telecommunications and the environment.

Research from the Institute of Physics indicates that physics graduates are more likely to find employment and earn more than other graduates (The Career Paths of Physics Graduates, Institute of Physics, May 2012). Nationally, physics graduates report earning between £18,000 and £28,000 per annum (Destinations of Leavers from Higher Education survey, 2013–14) and graduates can expect this to increase significantly over the course of their career.

Further study, including postgraduate courses for secondary school teaching and PhD courses, are options available to physics graduates.

DTUS Sponsorship

Our Physics degrees have been submitted for approval by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

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. You'll also learn about the physics that underpin emerging technologies, preparing you to contribute to the technological advances of modern society.

Stages 1 and 2: In Stage 1 you cover topics in: classical dynamics; quantum mechanics; astrophysics; mathematical methods and problem solving; electromagnetism; states of matter and materials; vibrations, waves and AC circuits; and laboratory physics.

During 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 continue studying core subjects in quantum mechanics, classical dynamics, materials and solid-state physics, and electromagnetism to an advanced level. Modules in advanced astrophysics, relativity and cosmology, electronic devices and fluid mechanics are also offered.

Students on both degrees take part in a group project, allowing you to build on your team working 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.

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 will be available, for example: astrophysics and cosmology, quantum theory (pure or applied), photonics, materials science, biophysics, medical physics, 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. 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.

Politics

Politics at Newcastle takes you behind and beyond the headlines to explore how the world is, how it should be and how political change actually takes place. Join a vibrant community to study one of the most exciting, diverse and dynamic disciplines available. Choose from topics spanning issues and ideologies, countries and continents, with the freedom to tailor your course to your own interests. Add a further international dimension to your degree with opportunities to work and study abroad.

- ▶ **Enjoy outstanding innovative teaching** – our teaching is consistently rated as exceptional and we achieved a very impressive 90 per cent student satisfaction score in the *National Student Survey 2015*
- ▶ **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 a wide range of modules and shape your degree to suit your personal interests and aspirations
- ▶ **Boost your CV with work or study abroad** – study or work abroad and immerse yourself in the politics and society of another country
- ▶ **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
- ▶ **Prepare for success** – our graduates work in a variety of careers in business, political research, media and more

Throughout my time here, I have never encountered a professor unwilling to help, if at any time you find yourself struggling. This, alongside interesting modules that cover a breadth of knowledge and teach you political research skills, have contributed to a great academic experience.

Degrees	Page
Politics BA Honours	201
Politics and Economics BA Honours	202
Government and European Union Studies BA Honours	202
You may also be interested in...	
Combined Honours (Politics, plus up to two other subjects)	
Economics	
History	
Politics and History	
Politics and Sociology	
Sociology	

See page 232 for a full list of degrees by subject.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Politics BA Honours

A levels: AAA–ABB including General Studies. At least one A level from a social science or humanities subject such as History, Government and Politics, Geography, English or Philosophy is preferred but not required. Combinations are assessed on a case-by-case basis.

International Baccalaureate: 32–34 points with three subjects at Higher Level grade 5 or above.

Politics and Economics BA Honours

A levels: AAA–ABB including General Studies. A or AS level Mathematics is desirable but not essential. GCSE Mathematics (minimum grade A) 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, English or Philosophy is preferred but not essential. Combinations are assessed on a case-by-case basis.

International Baccalaureate: 32–34 points. 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.

Government and European Union Studies BA Honours

A levels: AAA–ABB including General Studies. GCSE grade B 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, English or Philosophy is preferred but not required. Combinations are assessed on a case-by-case basis.

International Baccalaureate: 32–34 points required. 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.

League Table Ranking

Politics at Newcastle achieved a very impressive 90 per cent overall student satisfaction score in the *National Student Survey 2015*.

Work or Study Abroad

UK and EU students 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. Alternatively, you may work abroad in an approved organisation.

Work/study in another EU country is a compulsory part of the Government and European Union Studies degree (see page 202).

Careers

Politics students go on to a range of careers and further study in politics-related fields and beyond. Some students use their politics degree as a foundation for careers in national and local government, journalism, and global/national non-governmental organisations (such as Amnesty International, Oxfam and Save the Children). Many other politics graduates choose careers in management, business and finance, marketing and advertising. Some go on to study vocational courses in law, marketing or teaching, or continue with postgraduate study in areas such as politics, business and finance.

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.

▶ Continued overleaf.

Stage 1: We lay the foundation for your study of politics with modules in international politics, European and UK political systems, and political theory, as well as a module focused on developing your analytical and learning skills. You also 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 or research project.

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 and project modules provide an excellent opportunity for you to conduct your own research into an area of politics that interests you.

Government and European Union Studies

BA Honours | L241 | 4 years |  

This degree combines the study of the politics and culture of the European Union and its member states with 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 also spend a year abroad studying at one of our partner universities in Europe.







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 by native speakers, and involve small-group learning, 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 dramatically improve your language skills and gain direct experience of the politics, society and culture of another country.

Stage 3: You get the opportunity to simulate how the European Union actually works in a module requiring you to act as a representative of a European Union member state, and simulate how they make decisions at the European Union level. You complete a dissertation or a research project in politics. You also choose optional topics from the wide selection available in politics, languages and from other related subject areas.

Psychology

Psychology is a science that explores why people and animals think and behave as they do. You will take part in experiments, and run projects testing your own theories and hypotheses. You can also gain even more practical research experience through our vacation scholarships scheme and certified research apprenticeship scheme. You can study psychology on its own in our British Psychological Society-accredited degree or combine it with biology, mathematics or nutrition as part of the Joint Honours in Science scheme.

-  **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
-  **Spend a year on professional placement** – gain invaluable work experience with an optional year on work placement, developing your skills and building professional contacts (C800 only)
-  **Boost your CV with practical experience** – get involved in University experiments, undertake your own independent research, and apply for a Research Scholarship to work alongside researchers on vacation projects
-  **Develop transferable professional skills** – develop professional skills in quantitative and qualitative data analysis, computing, report writing and presentation, 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

Degrees	Page
Psychology BSc Honours	205
Biology and Psychology BSc Honours	204
Mathematics and Psychology BSc Honours	204
Nutrition and Psychology BSc Honours	204
You may also be interested in...	
Biology	
Biomedical and Biomolecular Sciences	

See page 232 for a full list of degrees by subject.

I chose Newcastle over other universities because it was ranked very highly and is renowned for its research. The lecturers are successful in their field and this really comes across in the way they teach our course.

Rebecca, Psychology BSc Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Psychology BSc Honours

A levels: AAA–AAB. One science A level is required, two are preferred. We include Psychology, Biology, Chemistry, Physics, Economics, Statistics and Mathematics as science A levels. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Mathematics plus a science (both minimum grade B) required.

International Baccalaureate: A minimum of 35 points. 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.

League Table Ranking

Psychology at Newcastle is highly regarded, achieving a 97 per cent overall student satisfaction score and ranking us 4th in the UK in the *National Student Survey 2015*. We also rank in the top 10 UK universities in *The Times/Sunday Times University Guide 2016*. In the *QS World University Rankings by Subject 2015* we rank in the top 200 universities in the world.

Professional Accreditation

Our Single Honours Psychology degree is accredited by the British Psychological Society.

Careers

If you wish 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.

Our Single Honours Psychology degree gives you the Graduate Basis for Chartered Membership with the British Psychological Society (BPS), 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.

Alternatively, many graduates choose a career where they can apply their skills of report writing, data analysis, computing and communication, such as: management and administration; HR; banking and finance; social work; teaching; the media; librarianship; and marketing.

Biology and Psychology

BSc Honours | CC18 | 3 years

This degree is part of our Joint Honours in Science scheme. Find out more in the Biology and Zoology section on page 71.

Mathematics and Psychology

BSc Honours | CG81 | 3 years

This degree is part of our Joint Honours in Science scheme. Find out more in the Mathematics and Statistics section on page 165.

Nutrition and Psychology

BSc Honours | BC48 | 3 or 4 years

This degree is part of our Joint Honours in Science scheme. Find out more in the Nutrition and Food section on page 192.

Psychology

BSc Honours | C800 | 3 years or 4 years

The first and second years (Stages 1 and 2) of this BPS-accredited degree consist of compulsory modules that set out the foundations of psychology and the associated life sciences. 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 carrying 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; visual perception; individual differences; biological psychology; comparative psychology; cognitive neuroscience; abnormal psychology; and statistics for experimental psychology.

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.

Work placement (optional): Once you have started your studies, you can apply to transfer onto our Psychology with Professional Placement degree, which incorporates a year on professional placement between Stages 2 and 3. 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. Your 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 professional and clinical skills
- gain demonstrable work experience to showcase your skills to future employers

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 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. Previous projects have explored topics such as: visual clues to judge health and attractiveness; use of humour in advertising; sleep deprivation and depression; sensation seeking and birth order; and sex differences in colour memory. In Stage 3 you also complete your professional skills module.



Sociology

Sociology examines social structures, relationships and identities and focuses on contemporary issues such as social divisions, sexuality, health and inequality. We offer a solid foundation in the subject, plenty of fascinating module options, and a supportive academic community that values each individual student. Our expert staff will help you to develop an invaluable understanding of the social processes that shape people's lives. You can also enhance your experience with study abroad or a work placement module, and develop the skills that will make you a versatile graduate for a changing world.

- ▶ **Tailor your degree to your interests with a wide choice of topics** – our research-informed modules cover areas such as: identities and memory; changing cultures in a globalising world; media and society; gender, class and ethnicity; the social shaping of bodies and sexualities; political activism and social transformations; and many more
- ▶ **Open the door to a range of careers** – develop skills that will appeal to a wide range of employers, such as critical thinking, analysing complex data, problem-solving and communication
- ▶ **Develop independent research skills** – research a topic of your choice in depth through your dissertation, with hands-on support from an experienced supervisor
- ▶ **See the world in a new light** – our degree will develop your 'sociological imagination', challenge you to widen your horizons and cultivate your intellectual, moral and creative capacities
- ▶ **Settle in with our support** – our approachable, enthusiastic staff create a supportive academic community and you'll have a peer mentor and personal tutor

Degrees	Page
Sociology BA Honours	207
Politics and Sociology BA Honours	208
You may also be interested in...	
Combined Honours (Sociology, plus up to two other subjects)	
History	
Politics	
Psychology	

See page 232 for a full list of degrees by subject.

I have gained excellent organisational, teamworking and communication skills through studying sociology. I also undertook the Career Development module that involved a 70-hour work placement, giving me practical experience of the world of work.



Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Sociology BA Honours Politics and Sociology BA Honours

A levels: ABB–BBB.

International Baccalaureate: 30–32 points.

League Table Ranking

Sociology at Newcastle ranks in the top 20 UK universities in *The Complete University Guide 2016*. In the *QS World University Rankings by Subject 2015* we rank in the top 200 universities in the world.

Study Abroad

UK and EU students have the opportunity to gain an international perspective on their 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.

Careers

Studying sociology equips you with skills that are relevant to many different work environments, such as critical thinking, the ability to analyse complex data and conduct social research, as well as communication, organisation and problem-solving skills.

Throughout your degree you will be encouraged to develop a diverse portfolio of knowledge and skills, and engage with issues and debates relevant to careers in many fields. Employers recognise that sociology graduates have independent research skills and often have an interest in working with people, which is reflected in the types of jobs sociology graduates do.

Our graduates can be found working across the public, private and not-for-profit sectors in areas including: the civil service; education; social work; charities; HR; PR and marketing. Some graduates will continue to postgraduate-level studies. Popular choices include Master's-level courses in teaching, social research, media studies and development studies.

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, gain a grounding in sociological and anthropological theories and research methods, and 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 lifestyle, the state and citizenship. The Understanding Everyday Life module encourages students to make sociological sense of ordinary situations, people and things through fieldwork as well as classroom teaching. You can also take optional modules 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: 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 hands-on support from an experienced supervisor.

Our students have generated fascinating research findings on a diverse range of topics, from gender roles in India to student occupations, from Fairtrade to fan communities, and from the medicalisation of dying to the 'selfie culture' in tourism.

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 Joint Honours degree, which introduces 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 called Truth, Lies and Politics, which equips you with research skills and the ability to present academic arguments, as well as introducing the critical and moral issues involved in the creation of social-scientific knowledge.

You also choose optional modules in both disciplines including: the sociological imagination; comparing cultures; foundations of political thought; and 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: global poverty and global politics; European, Asian and American politics; Britain and the EU; war and genocide; and world political thought. In sociology optional modules include: refugees and displacements; memory, identity and nation-building in Eastern Europe; society and the utopian imagination; politics of the arts, and many more. You write a dissertation based on your own research in either sociology or politics.

If you have strong opinions on issues that affect the world and the people within it, sociology is for you. During the course you will find explanations for a myriad of issues. The values you hold will greatly benefit you in discussions and writing assignments, just come equipped with an open mind!



Speech and Language Sciences

Speech and language therapists help both children and adults overcome communication disorders. Newcastle was the first UK university to offer a degree leading to a clinical qualification in speech and language therapy in 1959. Today, we continue to offer one of the UK's leading speech and language sciences degrees. We rank first in the UK for Speech and Language Sciences in *The Complete University Guide 2016* and second in the UK in *The Guardian University Guide 2016*.

- ▶ **Gain a recognised qualification** – graduate with a degree that is professionally accredited by the Royal College of Speech and Language Therapists and the Health and Care Professions Council (HCPC)
- ▶ **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 North East Aphasia Centre, the Literacy Clinic, and the Paediatric Speech and Language Clinic
- ▶ **Learn in specialist facilities** – we have state-of-the-art facilities for computerised linguistics and phonetic analysis, as well as audiovisual equipment for use in clinical teaching
- ▶ **Enjoy close interaction with professionals** – work alongside local therapists and professional practitioners in hospitals, schools and clinics

Degrees	Page
Speech and Language Sciences BSc Honours	211
You may also be interested in...	
English Literature, Language and Linguistics	
Medicine	
Psychology	

See page 232 for a full list of degrees by subject.

The lecturers follow a problem-based learning approach, which means the students can break off from a lecture to work in groups to solve a real life, clinical case. This active and practical method of learning provides us with the skills needed for our career as a speech and language therapist.

Chloe, Speech and Language Sciences BSc Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Speech and Language Sciences BSc Honours

A levels: AAB normally including Biology. Biology required at AS level grade B if not offered at A level. Desirable subjects at A level include (but are not exclusive to) Psychology, Biology, Maths, Chemistry, Physics, English Language, Modern Language(s), Geography, History. Please note that the following subjects are not acceptable in place of Biology: Health and Social Care, Physical Education, Nutrition and Food, Environmental Science or Applied Science. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Mathematics required (minimum grade B) if not offered at a higher level. General Studies not accepted as a full A level.

International Baccalaureate: A minimum of 35 points with three subjects grade 5 or above at Higher Level. Biology grade 6 and Mathematics or Mathematical Studies grade 5 required at Standard Level if not offered at Higher Level.

Other qualifications: We accept a wide range of other qualifications from students from all backgrounds. Please visit www.ncl.ac.uk/undergraduate/degrees/b620 for details.

Additional Admissions Information

NHS Constitution

We are seeking candidates who are personally attuned to NHS values as stated in the NHS constitution, which can be found at <https://hee.nhs.uk/about/nhs-constitution>

Disclosure and Barring Service (DBS) Check

Students undertaking the Speech and Language Sciences degree 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. The School of Education, Communication and Language Sciences reserves the right to discontinue the studies of any student for whom an unsatisfactory DBS disclosure is received.

Disabled Students

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.

Fees and Funding

At the time of going to print (February 2016), students on this degree are eligible for funding through The NHS Bursary Scheme. This means your tuition fees are usually paid in full, you will receive a £1,000 grant each year, and you can also apply for an income-assessed bursary.

Arrangements for students starting their studies in 2017 have not yet been announced. Please check www.nhsbsa.nhs.uk/students for up-to-date information.

League Table Ranking

Newcastle was the first UK university to offer a degree leading to a clinical qualification in speech and language therapy in 1959. Today, we continue to offer one of the UK's leading speech and language sciences degrees.

We are ranked 1st in the UK for Speech and Language Sciences in *The Complete University Guide 2016* and 2nd in the UK in *The Guardian University Guide 2016*. We are in the top 10 in the UK for overall student satisfaction in the *National Student Survey 2015*, with a score of 91 per cent (in the Aural and Oral Science category).

Professional Accreditation

Graduates of our Speech and Language Sciences degree will be eligible to apply for professional registration with the Health and Care Professions Council, and will be qualified to practise as a speech and language therapist without the need to take a postgraduate qualification. You can also become a full member of the Royal College of Speech and Language Therapists.

Careers

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.

Speech and Language Sciences

BSc Honours | B620 | 4 years |

Speech and language therapists (SLTs) are responsible for assessing and treating people of all ages who have difficulty communicating, whether it be a three-year-old learning to talk or an eight-year-old learning to read and write. SLTs also work with adults who have trouble expressing themselves as a result of a stroke and with people who have difficulty swallowing, using their voices, or speaking fluently.

This degree teaches 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 four Stages of your degree.

Stage 1: We lay the foundation for later work with topics including anatomy of speech and language, developmental psychology, child language and development, clinical education and research methods. We also introduce you to case-based problem solving.

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 a limited number of cases in University clinics: the Literacy Clinic, specialising in literacy and dyslexia, and the North East Aphasia Centre.

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 research methods and statistics. During Semester 1, you spend half a day each week on a placement in a community clinic, and in Semester 2 you undertake a six-week block placement.

Stage 4: You undertake a second six-week placement, as well as gaining supervised experience of evaluating a clinical service. You carry out in-depth studies of swallowing disorders. You also conduct a research project on any aspect of the discipline that interests you. This takes up a third of your time throughout the year.



Sarah

Speech and Language Sciences BSc Honours

I enjoy the massive variety of modules – from anatomy to linguistics, child development to clinical professionalism, psychology to phonetics. My favourite so far has been cases. Getting to look at real-life clients and learning about the process of assessment, intervention, and treatment, right through to discharge or referral has been the most rewarding and practical module.



Surveying and Mapping Science

If you're interested in the world around you, and would like to learn how to collect and analyse data about it, surveying and mapping could be the degree for you. You'll learn to use state-of-the-art technology and mathematics-based analysis to study the built and natural environments. The application of this data is huge – from using lasers to make 3D models of buildings for construction projects to using satellite positioning to model environmental changes – and can open the door to lots of exciting careers.

- ▶ **Enjoy outstanding career prospects** – graduates from our degree are highly sought after by industry, with high levels of graduate employment and excellent starting salaries (see opposite)
- ▶ **Boost your employability with our industry links** – our strong industry links and annual careers fair help you to find sponsorship opportunities, work placements and excellent graduate jobs
- ▶ **Gain a professionally accredited qualification** – our degree has unique dual accreditation, putting you on the fast track to qualification as a chartered surveyor (see opposite)
- ▶ **Enjoy high levels of practical work** – there's fieldwork at every Stage, using an exceptional pool of industry-standard instrumentation and computing software
- ▶ **Receive a starter pack of essential equipment** – we'll give you a first-year starter pack containing key textbooks and essential 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 supportive School** – we offer a friendly atmosphere, helped by our excellent student-staff ratio and team-building trip in your first week here

Degree	Page
Surveying and Mapping Science BSc Honours	214
You may also be interested in...	
Civil Engineering	
Computer Science	
Geographic Information Science	
Mathematics and Statistics	

See page 232 for a full list of degrees by subject.

The excellent reputation inspired me to choose Newcastle to continue my study when I finished my higher diploma in Hong Kong. The course consists of small groups of students, which allows me to work with other classmates easily. The teaching staff and my personal tutor always give me valuable feedback and I can get help from them quickly which I appreciate.

Tommy, Surveying and Mapping Science BSc

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Surveying and Mapping Science BSc Honours

A levels: ABB 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 required if not offered at A or AS level.

International Baccalaureate: A minimum of 34 points. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

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 (CICES), which means that when you graduate you are already on the pathway to becoming a chartered surveyor.

DTUS Sponsorship

Our Surveying and Mapping Science degree is approved by the Defence Technical Undergraduate Scheme. DTUS is a Ministry of Defence sponsorship programme for students who wish to enter the engineering or technical branches of the armed services or the MoD civil service after graduation. www.dsfc.ac.uk

Careers

Graduates of our degree are highly sought after by industry. 91 per cent of recent graduates entered work or further study. Of those in employment, 94 per cent were in graduate-level jobs and the average salary was £27,500 (DLHE Survey 2013–14).

Our graduates work in a range of organisations, including household names like BP and Shell. 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.

Surveying and mapping involves using technology in many different environments, from remote fieldwork to cutting-edge technology offices. Your qualification will also have international appeal and some of our recent graduates are now working in Australia and the USA.

Our annual careers fair allows you to meet companies and organisations from across the industry, chat with graduates from our course, and discover some of the latest industry and technology trends. You will also develop skills and attributes that are desirable in many other professions. Numeracy, literacy, data handling, communication, computing and research skills will stand you in good stead in a wide range of careers, such as computing, management consultancy, finance, teaching, or the armed forces.



214

S

Surveying and Mapping Science

BSc Honours | H244 | 3 years | ✓

This degree fuses 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.

This degree is more mathematically oriented than our Geographic Information Science degree (see page 148), which focuses on the computer systems and software used for analysing the geographic data that you will learn how to collect.

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 puts all your experience and theory into practice by mapping a Lake District valley.

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.

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 will develop your investigative, research and report presentation skills. You will also study advanced specialist modules in areas such as offshore surveying, geodesy and geohazards, and have a choice of topics that are linked to our cutting-edge research or employment sectors such as civil engineering.



I chose Newcastle University because it is great for graduate employment. Also this course isn't as well established at other universities. My degree offers lots of variety – there's something to suit everyone. It has the feeling of a family and we support each other – the staff are very willing to give their time to help you out – meaning learning here isn't a chore, it's a pleasure. Newcastle itself is a lovely place – a busy, lively city where there's always plenty to get involved in.

Urban Planning

Are you interested in your surroundings and curious about how places change? Are you concerned about how we create successful, sustainable and healthy places where people want to live? Do you want to understand how to conserve our historic buildings, protect the natural environment, and combat climate change, while embracing the future transformations of our towns and cities? If the answer is 'yes' to any of these questions, then a degree in planning could be for you.

- ▶ **Gain a professionally accredited qualification** – our degrees are accredited by the Royal Town Planning Institute, putting you on route to become a chartered town planner
- ▶ **Enjoy field trips to experience planning in action** – enjoy frequent projects and field trips in the UK (and Europe) to experience different examples of planning practice
- ▶ **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 the School's breadth of built environment expertise, spanning urban planning, architecture, landscape architecture, urban design and digital architecture
- ▶ **See where your interests lie** – transfer options between the Urban Planning BA and Master of Planning MPlan until the end of third year, giving you time to decide whether you want to pursue chartered town planner status

Degrees	Page
Urban Planning BA Honours	217
Master of Planning MPlan	217
You may also be interested in...	
Architecture	
Architecture and Urban Planning	
Civil Engineering	
Geography and Planning	

See page 232 for a full list of degrees by subject.

My degree offers theories, techniques and skills to study spaces and places. I've learned about types of regulations and planning systems around the world. It's been a great stepping stone for figuring out what I'd like to do in the building industry.

Jessie, Urban Planning BA Honours

Entrance Requirements

For detailed entrance requirements, including those for additional qualifications not listed here, see www.ncl.ac.uk/undergraduate/degrees

Urban Planning BA Honours Master of Planning MPlan

A levels: ABB–BBC.

International Baccalaureate: 28–32 points.

League Table Ranking

Newcastle is ranked 6th in the UK for planning in *The Times/Sunday Times University Guide 2016*.

Professional Accreditation

Both the BA and MPlan degrees are professionally accredited by the Royal Town Planning Institute (RTPI), which means they satisfy the standards set by the planning profession.

Our four-year MPlan degree leads to an undergraduate Master of Planning qualification, which satisfies the educational requirements of the RTPI. This means you do not need to sit any further exams to gain membership of the RTPI and chartered town planner status, though you do need to first complete two years' experience in a planning practice. Our Certificate in Planning Practice counts as one of these two years.

At the time of publication (January 2016), we are also in the process of applying for RICS accreditation for both degrees.

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. UK and EU MPlan students have the opportunity to gain an international perspective on their subject by taking part in the University's Erasmus programme in Stage 4.

Which Degree?

At Newcastle, you have time to decide on your career path. 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 Joint Honours degrees: Architecture and Urban Planning BA Honours (see page 70) or Geography and Planning BA Honours (see page 148).

Both of these Joint Honours degrees allow for potential transfer to our Single Honours courses at the end of Stage 1 should you decide you wish to pursue a career as a planner.

Careers

Almost all of our planning graduates choose to pursue accredited town planner status. Our unique focus on employability, and the option to take a year out in planning practice and gain an additional qualification, means our graduates are highly sought after by employers.

A planning-related degree can also open the door to other careers. Many employers welcome the broad range of study experienced by our graduates, such as gaining skills in problem solving, teamwork and IT, and your background in social and environmental issues, economics and law.

Recent graduates 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.

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'll 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.

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. You can also choose to take a European field trip.

Stage 3: You study modules concerned with strategic planning, as well as planning politics. A dissertation gives you the chance to study a topic of interest to you in depth, showcasing your knowledge and skills to future employers.

Master of Planning

MPlan | K400 | 4 years |

This degree follows the same programme as our Urban Planning BA Honours for the first three years (see opposite).

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 University to complete a final year of advanced specialist study.

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 opposite). 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. We also provide training during your second year of study 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.

Essential Information

Applications and Admissions.....	220
Working with Schools and Colleges.....	223
Maps and Travel.....	224
A-Z Degree Index.....	226
Degrees by Subject.....	232
General Index.....	237
Disclaimers.....	239
Visit Us.....	240

218

219

Essential Information



Applications and Admissions

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 then please contact Student Services, who will be happy to help (see back cover for details).

Applying to Newcastle University

Check online for the most up-to-date course and entry requirement information for your chosen degree at www.ncl.ac.uk/undergraduate

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 back cover 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/apply

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 that 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

We are committed to providing an accessible environment for disabled students and students with specific learning difficulties, and a range of support is available at the University.

We encourage you to contact us before you apply so that you can find out more about the University's provision for disabled students and make an informed decision about whether it is the right university for you.

If you notify us when booking on 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 with a member of the appropriate team.

Your application will receive an acknowledgement e-mail 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 back cover for details).



Find out more
www.ncl.ac.uk/students/wellbeing

Mature students

We welcome applications from all candidates, regardless of age or background. We find 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. 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 you have applied for.

Each year our Student Wellbeing team organises a Mature Student Orientation 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 back cover for details).

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 entrance 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 that 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

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

The General Regulations allow the University to exclude students who are found to have provided false or misleading information in support of their application.

Qualifications

All qualifications that are of a suitable academic level to constitute appropriate preparation for the degree concerned 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/AS levels and the International Baccalaureate (IB).

Our website (www.ncl.ac.uk/undergraduate) also lists typical entrance requirements for each degree for students studying the following qualifications:

- A/AS levels
- Scottish Advanced Higher/Highers
- International Baccalaureate
- Irish Leaving Certificate
- Access to HE Diplomas
- BTEC qualifications
- 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 back cover 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 2017, 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 admissions tutors wish to recognise the achievement of an AS level in a fourth subject within a conditional offer, they may adjust their level of typical offer to make allowance for the additional achievement. If you have not taken four subjects, however, you will not be disadvantaged in your application.

International qualifications

We welcome applications from international students and consider all applications on an individual basis. If you have a query about the acceptability of your qualifications for entry onto a particular degree, please visit www.ncl.ac.uk/international to find information relating to your country.

English language requirements

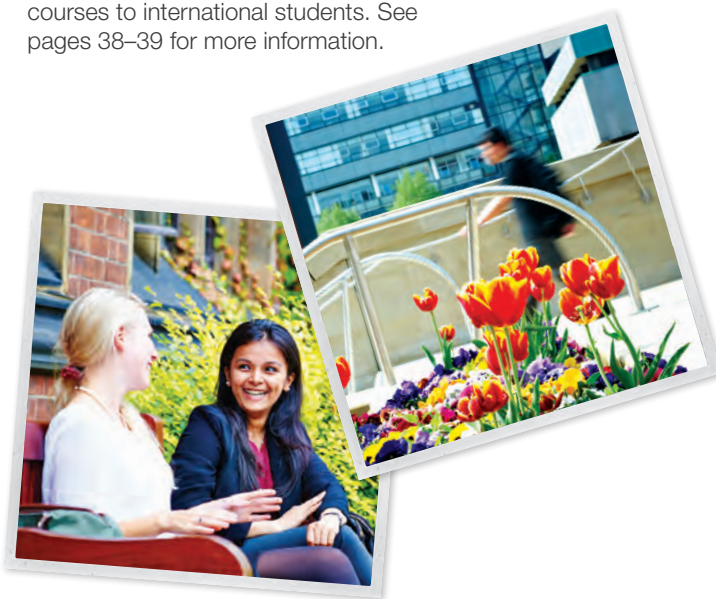
If you are not a native English speaker, you will need to show that you have an adequate knowledge of written and spoken English before you begin your studies at the University. We typically receive a score of IELTS 6.5 or equivalent for direct entry to the University.

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

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

We offer a range of English language support courses to international students. See pages 38–39 for more information.



Working with Schools and Colleges

Our extensive work with schools and colleges nationally aims to provide students with high-quality information, advice and events about higher education so that they can make informed decisions about university. As a university we are also committed to conducting 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 and progressive programme of subject-specific activities. Whether on-campus or in-school, all use our own students/graduates, who are able to offer a fresh, realistic and unique insight into university life. These activities can support schools and colleges with key skills development and with curriculum delivery. See 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/visit/he-fairs

We encourage schools and colleges to bring groups of students to our University Open Days. Our Friday event includes an update session for teachers and advisers. See 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 page 35 for more information.

Realising Opportunities – Newcastle University leads this award-winning national scheme, which aims to encourage talented students from across the UK to apply to research-intensive universities including Newcastle. Fifteen research-intensive universities are involved in the scheme, which builds upon their collective experience of widening participation.

North East Raising Aspirations Partnership – Newcastle University leads this scheme, which includes five universities in the North East and offers a programme of activities for younger pupils, teachers, advisers, parents, carers, and governors.

The Partnership is part of the National Networks for Collaborative Outreach (NNCO) and is officially recognised as the single point of contact for the region.

Teachers' Toolkit

Everything we offer for students, in one place – our innovative online Teachers' Toolkit brings together over 400 resources, activities and events for schools and colleges in one easy-to-use, searchable database, giving you access to a huge range of practical resources, over 95 per cent of which are free. See www.ncl.ac.uk/teacherstoolkit

- subject-based activities bringing our degrees and research to life for students of all ages (such as building a satellite or taking part in a mini medical school)
- events aimed at helping your students discover the benefits of university study, from student shadowing to residential summer schools
- resources from our award-winning Library including classroom-ready resources and student workshops designed to support students studying the Extended Project Qualification
- access to subject-specific careers information

Events

We offer free conferences for teachers and advisers to provide the latest information on issues relating to higher education and university admissions. We also run Continuing Professional Development sessions for teachers and headteachers providing information that will help you support staff and students alike, and introduce you to University senior managers and students to discuss current issues relating to student transition to university.

Maps and Travel

By car

Newcastle is easily accessible by road via the A1 (from the north and south) and the A69 (from the west). For SatNav users the postcode of our main campus is NE1 7RU.

You can find information about car parking on our website. However, as parking on campus is very limited, you may find it easier to visit us via public transport. We have excellent rail links with the rest of the UK. Alternatively, you can use the Metro to park-and-ride (see below).

By Metro

The Tyne and Wear Metro rail system serves Newcastle, Gateshead, Sunderland, and North and South Tyneside. Haymarket station is right next to campus, in the city centre. You can travel to Newcastle by car and park at one of the outlying Metro stations and use the park-and-ride facility. There are 10 park-and-ride car parks located next to Metro stations across the system. You can also use the Metro to travel to Haymarket from Newcastle's Central Railway Station and Newcastle International Airport. Students get great discounts on Metro travel – 30 per cent off the usual adult fare. www.nexus.org.uk/metro

By plane

Newcastle International Airport has flights to over 80 destinations worldwide. The Metro runs right to the airport terminal building. The journey to Haymarket Metro station opposite campus takes around 25 minutes and costs £3.40. Alternatively, via taxi, it takes 15 minutes and costs around £15.

By train

Newcastle is located on the East Coast Main Line with direct services to all major UK cities. Newcastle's railway station is 20 minutes' walk from our main 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

The city's coach station is run by National Express and offers daily coaches to UK destinations. It 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

Not able to visit?

-  Watch videos about life at Newcastle www.ncl.ac.uk/video
-  Tour our campus and city online www.ncl.ac.uk/tour
-  Explore our campus buildings online with Google Maps



1 King's Gate student services building



2 Old Quadrangle



3 Students' Union Building



4 Haymarket Metro Station



5 Northumberland Street (Newcastle's main shopping street)



6 Eldon Square Shopping Centre



7 St James' Park



8 Tyne Bridge



9 Quayside cafés, bars and restaurants



A-Z Degree Index

Please note: these are typical offers only and specific subjects or grades may be required. See the Entrance Requirements in your subject section for further details.

226

Degrees	UCAS	A Level	IB	Page
A				
Accounting and Finance BA	N400	AAB	35	56
Accounting and Finance (with Placement) BA	N401	AAB	35	56
Accounting and Finance BSc (London campus)	N402	AAB	35	56
Accounting and Finance with Placement BSc (London campus)	N404	AAB	35	56
Accounting and Mathematics BSc	NG41	AAB-ABB	35	57
Agri-Business Management BSc	N280	AAB-ABB	35	59
Agriculture BSc	D400	ABB-BBB	30-32	61
Agriculture with Agronomy BSc	D444	ABB-BBB	30-32	62
Agriculture with Animal Production Science BSc	D422	ABB-BBB	30-32	62
Agriculture with Farm Business Management BSc	D402	ABB-BBB	30-32	62
Ancient History BA	V110	AAB-ABB	32-35	100
Ancient History and Archaeology BA	VV14	ABB	32	67
Animal Science BSc	C305	ABB-BBB	32-35	64
Archaeology BA	V400	ABB-BBB	32	67
Architecture BA	K100	AAA	36	69
Architecture and Urban Planning BA	K190	ABB	32	70
Automation and Control BEng	H660	AAB	35	127
Automation and Control with Industrial Project MEng	H661	AAA	37	127
B				
Biochemistry BSc	C700	AAA-AAB	34-35	79
Biochemistry (Integrated Master's) MSci	C701	AAA-AAB	34-35	79
Biology BSc	C100	AAB-ABB	35	73
Biology MBiol	C103	AAA-AAB	35	73
Biology (Cellular and Molecular Biology) BSc	C1C7	AAB-ABB	35	73
Biology (Cellular and Molecular Biology) MBiol	C7C1	AAA-AAB	35	73
Biology (Ecology and Environmental Biology) BSc	C180	AAB-ABB	35	74
Biology (Ecology and Environmental Biology) MBiol	C181	AAA-AAB	35	74
Biology and Psychology BSc	CC18	AAB-ABB	35	75
Biomedical Genetics BSc	B901	AAA-AAB	34-35	79
Biomedical Genetics MSci	B903	AAA-AAB	34-35	79
Biomedical Sciences BSc	B940	AAA-AAB	34-35	80
Biomedical Sciences (Integrated Master's) MSci	B900	AAA-AAB	34-35	80
Biomedical Sciences with Industrial Placement Year BSc	B942	AAA	37	80
Business Accounting and Finance BA	NN14	AAB	35	57
Business Management BA	N200	AAB	35	84

Degrees	UCAS	A Level	IB	Page
C				
Chemical Engineering BEng	H810	AAA	37	89
Chemical Engineering MEng	H813	AAA	37	89
Chemical Engineering with Bioprocess Engineering MEng	H831	AAA	37	89
Chemical Engineering with Foundation Year BEng	H814	AAA-BBB	34-37	50
Chemical Engineering with Foundation Year MEng	H816	AAA-BBB	34-37	50
Chemical Engineering with Industry MEng	H815	AAA	37	90
Chemical Engineering with Process Control MEng	H830	AAA	37	90
Chemical Engineering with Sustainable Engineering MEng	HH82	AAA	37	90
Chemistry BSc	F100	ABB	34	94
Chemistry MChem	F103	AAB	35	94
Chemistry (with Industrial Training Year) BSc	F102	ABB	34	94
Chemistry (with Industrial Training Year) MChem	F106	AAB	35	94
Chemistry (with Study Abroad) MChem	F107	AAB	35	94
Chemistry with Medicinal Chemistry BSc	F151	ABB	34	94
Chemistry with Medicinal Chemistry MChem	F123	AAB	35	94
Chemistry with Medicinal Chemistry (with Industrial Training Year) BSc	F122	ABB	34	94
Chemistry with Medicinal Chemistry (with Industrial Training Year) MChem	F124	AAB	35	94
Chemistry with Medical Chemistry (with Study Abroad) MChem	TBC	AAB	35	94
Chinese Studies BA	TT12	ABB-BBB	32	187
Civil and Structural Engineering BEng	H210	AAA	37	98
Civil and Structural Engineering MEng	H242	AAA	37	98
Civil and Surveying Engineering BEng	H202	AAA	37	98
Civil and Surveying Engineering MEng	H292	AAA	37	98
Civil Engineering BEng	H200	AAA	37	97
Civil Engineering MEng	H290	AAA	37	97
Civil Engineering with Foundation Year BEng	H201	AAA-BBB	34-37	50
Civil Engineering with Foundation Year MEng	H291	AAA-BBB	34-37	50
Classical Studies BA	Q810	AAB-ABB	32-35	100
Classical Studies and English BA	QQ83	AAB	35	101
Classics BA	Q800	AAB-ABB	32-35	101
Combined Honours BA	Y001	AAB	35	103
Computer Science BSc	G400	AAB-ABB/AAC	34-35	108
Computer Science MComp	G405	AAB	35	108
Computer Science with Industrial Placement BSc	G401	AAB-ABB/AAC	34-35	108
Computer Science with Industrial Placement MComp	I100	AAB	35	108
Computer Science (Study Abroad) MComp	G406	AAB	35	108
Computer Science (Bio-Computing) BSc	I520	AAB-ABB/AAC	34-35	109
Computer Science (Bio-Computing) MComp	I522	AAB	35	109
Computer Science with Industrial Placement (Bio-Computing) BSc	I521	AAB-ABB/AAC	34-35	109
Computer Science with Industrial Placement (Bio-Computing) MComp	I524	AAB	35	109
Computer Science (Game Engineering) BSc	G450	AAB-ABB/AAC	34-35	109

227

A-Z Degree Index

Degrees	UCAS	A Level	IB	Page
C (continued)				
Computer Science (Game Engineering) MComp	I610	AAB	35	109
Computer Science with Industrial Placement (Game Engineering) BSc	G451	AAB-ABB/AAC	34-35	109
Computer Science with Industrial Placement (Game Engineering) MComp	I612	AAB	35	109
Computer Science (Human-Computer Interaction) BSc	I140	AAB-ABB/AAC	34-35	110
Computer Science with Industrial Placement (Human-Computer Interaction) BSc	I141	AAB-ABB/AAC	34-35	110
Computer Science (Mobile and Distributed Systems) BSc	G420	AAB-ABB/AAC	34-35	110
Computer Science (Mobile and Distributed Systems) MComp	I120	AAB	35	110
Computer Science with Industrial Placement (Mobile and Distributed Systems) BSc	G421	AAB-ABB/AAC	34-35	110
Computer Science with Industrial Placement (Mobile and Distributed Systems) MComp	I122	AAB	35	110
Computer Science (Security and Resilience) BSc	I190	AAB-ABB/AAC	34-35	111
Computer Science (Security and Resilience) MComp	I192	AAB	35	111
Computer Science with Industrial Placement (Security and Resilience) BSc	I191	AAB-ABB/AAC	34-35	111
Computer Science with Industrial Placement (Security and Resilience) MComp	I194	AAB	35	111
Computer Science (Software Engineering) BSc	G600	AAB-ABB/AAC	34-35	111
Computer Science with Industrial Placement (Software Engineering) BSc	G603	AAB-ABB/AAC	34-35	111
Contemporary and Popular Music BA	W301	ABB-BBB	32	190
Countryside Management BSc	D455	ABB-BBB	32-34	139
D				
Dental Surgery BDS	A206	AAA	37	115
Digital Electronics BEng	H990	AAB	35	128
Digital Electronics with Industrial Project MEng	H991	AAA	37	128
E				
Earth Science BSc	F641	AAB	35	118
Earth Science MEarthSci	F640	AAB	35	118
Economics BSc	L100	AAB	35	121
Economics and Business Management BA	LN12	AAB	35	121
Economics and Finance BSc	L161	AAB	35	122
Economics and Mathematics BSc	GL11	AAB-ABB	35	122
Education BA	X390	ABB-BBB	30-32	124
Electrical and Electronic Engineering BEng	H607	AAB	35	128
Electrical and Electronic Engineering with Foundation Year BEng	H604	AAA-BBB	34-37	50
Electrical and Electronic Engineering with Foundation Year MEng	H606	AAA-BBB	34-37	50
Electrical and Electronic Engineering with Industrial Project MEng	H605	AAA	37	128
Electrical Power Engineering BEng	H623	AAB	35	128
Electrical Power Engineering with Industrial Project MEng	H622	AAA	37	128
Electronic Communications BEng	H640	AAB	35	128
Electronic Communications with Industrial Project MEng	H621	AAA	37	128

Degrees	UCAS	A Level	IB	Page
E (continued)				
Electronics and Computer Engineering BEng	H652	AAB	35	129
Electronics and Computer Engineering with Industrial Project MEng	H654	AAA	37	129
Engineering with Foundation Year BEng	H101	AAA-BBB	34-37	50
Engineering with Foundation Year MEng	H103	AAA-BBB	34-37	50
English Language BA	Q302	AAB-ABB	34-35	132
English Language and Literature BA	Q300	AAA-AAB	35-36	133
English Literature BA	Q306	AAA-AAB	35-36	134
English Literature and History BA	QV31	AAA-AAB	35-36	134
English Literature with Creative Writing BA	QW38	AAA-AAB	35-36	135
Environmental Science BSc	F850	ABB	34	140
Environmental Sciences (Agricultural and Environmental Science) MEnvSci	F8D4	ABB	34	140
Environmental Sciences (Clean Technology) MEnvSci	F8H8	ABB	34	140
Environmental Sciences (Ecosystem Management) MEnvSci	F8C1	ABB	34	140
Environmental Sciences (Environmental Geochemistry) MEnvSci	F8F6	ABB	34	140
F				
Film and Media BA	P303	ABB	32	176
Film Practices BA	P313	ABB	32	176
Fine Art BA	W150	AAB-BBB	32-35	143
Folk and Traditional Music BA	W344	AAB-BBB	32-34	190
Food and Human Nutrition BSc	B4D6	ABB-BBB	32-34	194
Food Marketing and Nutrition BSc	DB64	ABB-BBB	32-34	195
French, see Modern Languages BA	T901	ABB-BBB	32	186
G				
Geographic Information Science BSc	F862	ABB	34	148
Geography BA	L701	AAB-ABB	32-35	147
Geography BSc	F800	AAB-ABB	32-35	147
Geography and Planning BA	LK74	ABB-BBB	30-32	148
German, see Modern Languages BA	T901	ABB-BBB	32	186
Government and European Union Studies BA	L241	AAA-ABB	32-34	202
H				
History BA	V100	AAA-AAB	35-37	151
History and Archaeology BA	VV41	ABB	32	67
I				
International Business Management BSc	N121	AAB	35	84
International Business Management with Placement BSc	N120	AAB	35	84
International Business Management BSc (London campus)	N122	AAB	35	85
International Business Management with Placement BSc (London campus)	N120	AAB	35	85
International Marketing and Management BSc (London campus)	N5N2	AAB	35	164
International Marketing and Management with Placement BSc (London campus)	N5N3	AAB	35	164

Degrees	UCAS	A Level	IB	Page
J				
Japanese Studies BA	TT12	ABB–BBB	32	187
Journalism, Media and Culture BA	P500	AAB	34	177
L				
Law LLB	M101	AAA	34	153
Linguistics BA	Q100	AAA–ABB	34–36	135
Linguistics with Chinese or Japanese BA	Q1T4	AAA–ABB	34–36	136
Linguistics with French BA	Q1R1	AAA–ABB	34–36	136
Linguistics with German BA	Q1R2	AAA–ABB	34–36	136
Linguistics with Spanish BA	Q1R4	AAA–ABB	34–36	136
M				
Marine Biology BSc	C161	AAB–ABB	34–35	155
Marine Biology and Oceanography BSc	CF17	AAB–ABB	34–35	156
Marine Technology with Foundation Year BEng	J615	AAA–BBB	34–37	50
Marine Technology with Foundation Year MEng	J616	AAA–BBB	34–37	50
Marine Technology with Marine Engineering BEng	H504	AAB	35	159
Marine Technology with Marine Engineering MEng	H501	AAA	37	159
Marine Technology with Naval Architecture BEng	H502	AAB	35	159
Marine Technology with Naval Architecture MEng	H503	AAA	37	159
Marine Technology with Offshore Engineering BEng	H355	AAB	35	160
Marine Technology with Offshore Engineering MEng	H356	AAA	37	160
Marine Technology with Small Craft Technology BEng	H520	AAB	35	160
Marine Technology with Small Craft Technology MEng	H524	AAA	37	160
Marine Zoology BSc	C350	AAB–ABB	34–35	156
Marketing BSc	N500	AAB	35	163
Marketing and Management BA	NN52	AAB	35	164
Mathematical Sciences with Foundation Year BSc	G101	N/A	N/A	49
Mathematics BSc	G100	AAB/A*BB/A*AC	35–37	167
Mathematics MMath	G103	AAA/A*AB	37	167
Mathematics and Psychology BSc	CG81	AAB–ABB	35–37	168
Mathematics and Statistics BSc	GG13	AAB/A*BB/A*AC	35–37	167
Mathematics and Statistics MMathStat	GGC3	AAA/A*AB	37	167
Mathematics with Finance BSc	G1N3	AAB/A*BB/A*AC	35–37	168
Mathematics with Management BSc	G1N2	AAB/A*BB/A*AC	35–37	168
Mechanical and Low Carbon Transport Engineering MEng	H390	AAA	37	173
Mechanical Design and Manufacturing Engineering BEng	HH73	AAB	35	172
Mechanical Design and Manufacturing Engineering MEng	HH37	AAA	37	172
Mechanical Engineering BEng	H300	AAB	35	172
Mechanical Engineering MEng	H301	AAA	37	172
Mechanical Engineering with Biomedical Engineering MEng	H3H8	AAA	37	173
Mechanical Engineering with Foundation Year BEng	H304	AAA–BBB	34–37	50
Mechanical Engineering with Foundation Year MEng	H305	AAA–BBB	34–37	50
Mechanical Engineering with Mechatronics MEng	H3H6	AAA	37	173
Media, Communication and Cultural Studies BA	PQL0	AAB	34	177
Medical Science (Deferred Choice) BSc	B902	AAA–AAB	34–35	80
Medicine and Surgery MB BS	A100	AAA	38	181

Degrees	UCAS	A Level	IB	Page
M (continued)				
Medicine and Surgery (Accelerated Programme) MB BS	A101	See page 179	N/A	182
Microelectronic Engineering BEng	H611	AAB	35	129
Microelectronic Engineering with Industrial Project MEng	H612	AAA	37	129
Modern Languages BA	T901	ABB–BBB	32	186
Modern Languages and Business Studies BA	TN92	ABB–BBB	32	186
Modern Languages and Linguistics BA	QT19	ABB–BBB	32	186
Modern Languages, Translation and Interpreting BA	R9Q9	ABB	32	187
Music BA	W300	ABB–BBB	32	191
Music BMus	W304	AAB–ABB	34	191
N				
Nutrition and Psychology BSc	BC48	AAB–ABB	35	195
O				
Oral and Dental Health Sciences BSc	A207	ABB	34	116
P				
Pharmacology BSc	B210	AAA–AAB	34–35	80
Philosophy BA	V500	AAB–ABB	32	197
Physical Geography BSc	FH82	ABB	32	147
Physics BSc	F300	AAB	35–37	199
Physics MPhys	F303	AAA	37	199
Physiological Sciences BSc	B100	AAA–AAB	34–35	81
Planning (Master of) MPlan	K400	ABB–BBC	28–32	217
Politics BA	L200	AAA–ABB	32–34	201
Politics and Economics BA	LL21	AAA–ABB	32–34	202
Politics and History BA	VL12	AAA–AAB	35	151
Politics and Sociology BA	LL32	ABB–BBB	30–32	208
Portuguese, see Spanish, Portuguese and Latin American Studies BA	RT47	ABB–BBB	32	187
Psychology BSc	C800	AAA–AAB	35	205
R				
Rural Studies BSc	D452	ABB–BBB	32–34	139
S				
Sociology BA	L300	ABB–BBB	30–32	207
Spanish, Portuguese and Latin American Studies BA	RT47	ABB–BBB	32	187
Speech and Language Sciences BSc	B620	AAB	35	211
Sport and Exercise Science BSc	TBC	AAA–AAB	34–35	81
Statistics BSc	G300	AAB/A*BB/A*AC	35–37	167
Surveying and Mapping Science BSc	H244	ABB	34	214
U				
Urban Planning BA	K421	ABB–BBC	28–32	217
Z				
Zoology BSc	C300	AAB–ABB	35	75
Zoology MBiol	C301	AAA–AAB	35	75

Degrees by Subject

Accounting		Biology (Continued)		Business Management		Civil Engineering	
Accounting and Finance BA	56	Biology (Ecology and Environmental Biology) BSc.....	74	Agri-Business Management BSc	59	Civil and Structural Engineering BEng and MEng	98
Accounting and Finance (with Placement) BA	56	Biology (Ecology and Environmental Biology) MBiol ..	74	Agriculture with Farm Business Management BSc.....	62	Civil and Surveying Engineering BEng and MEng.....	98
Accounting and Finance BSc (London campus).....	56	Biology and Psychology BSc.....	75	Business Management BA.....	84	Civil Engineering BEng and MEng.....	97
Accounting and Finance with Placement BSc (London campus)	56	Biomedical Genetics BSc	79	Combined Honours BA	103	Civil Engineering with Foundation Year BEng and MEng.....	50
Accounting and Mathematics BSc.....	57	Biomedical Genetics MSci.....	79	Economics and Business Management BA	121		
Business Accounting and Finance BA	57	Biomedical Sciences BSc	80	Food Marketing and Nutrition BSc.....	195	Classics	
Mathematics with Finance BSc.....	168	Biomedical Sciences (Integrated Master's) MSci	80	International Business Management BSc.....	84	Ancient History BA	100
		Biomedical Sciences with Industrial Placement Year BSc	80	International Business Management BSc (with Placement) BSc	84	Ancient History and Archaeology BA	67
Agriculture		Environmental Science BSc	140	International Business Management BSc (London campus)	85	Classical Studies BA.....	100
Agri-Business Management BSc	59	Environmental Sciences (Agricultural and Environmental Science) MEnvSci.....	140	International Business Management BSc (London campus)	85	Classical Studies and English BA.....	101
Agriculture BSc.....	61	Environmental Sciences (Clean Technology) MEnvSci.....	140	International Marketing and Management BSc (with Placement BSc (London campus).....	85	Classics BA	101
Agriculture with Agronomy BSc	62	Environmental Sciences (Ecosystem Management) MEnvSci	140	International Marketing and Management with Placement BSc (London campus).....	164	Combined Honours BA	103
Agriculture with Animal Production Science BSc.....	62	Environmental Sciences (Environmental Geochemistry) MEnvSci	140	International Marketing and Management with Placement BSc (London campus).....	164		
Agriculture with Farm Business Management BSc.....	62	Exercise Biomedicine BSc	80	Marketing and Management BA	164	Combined Honours	
Animal Science BSc	64	Food and Human Nutrition BSc.....	194	Mathematics with Management BSc	168	Combined Honours BA	103
Countryside Management BSc	139	Food Marketing and Nutrition BSc.....	195	Modern Languages and Business Studies BA	186		
Rural Studies BSc	139	Marine Biology BSc	155			Computing	
		Marine Biology and Oceanography BSc	156	Chemical Engineering		Computer Science BSc	108
Archaeology		Marine Zoology BSc	156	Chemical Engineering BEng and MEng.....	89	Computer Science MComp	108
Ancient History and Archaeology BA	67	Medical Science (Deferred Choice) BSc.....	80	Chemical Engineering with Bioprocess Engineering MEng	89	Computer Science with Industrial Placement BSc.....	108
Archaeology BA.....	67	Nutrition and Psychology BSc	195	Chemical Engineering with Foundation Year BEng and MEng	50	Computer Science with Industrial Placement MComp	108
Combined Honours BA	103	Pharmacology BSc.....	81	Chemical Engineering with Industry MEng	90	Computer Science (Study Abroad) MComp	108
History and Archaeology BA	67	Physiological Sciences BSc	81	Chemical Engineering with Process Control MEng.....	90	Computer Science (Bio-Computing) BSc.....	109
		Psychology BSc	205	Chemical Engineering with Sustainable Engineering MEng.....	90	Computer Science (Bio-Computing) MComp.....	109
Architecture		Zoology BSc.....	75			Computer Science with Industrial Placement (Bio-Computing) BSc	109
Architecture BA	69	Zoology MBiol	75	Chemistry		Computer Science with Industrial Placement (Bio-Computing) MComp.....	109
Architecture and Urban Planning BA.....	70			Biochemistry BSc	79	Computer Science with Industrial Placement (Game Engineering) BSc.....	109
Diploma in Architectural Practice and Management ..	70	Biomedical and Biomolecular Sciences		Biochemistry (Integrated Master's) MSci	79	Computer Science (Game Engineering) MComp.....	109
Graduate Certificate in Architectural Practice	70	Biochemistry BSc	79	Chemical Engineering BEng and MEng.....	89	Computer Science with Industrial Placement (Game Engineering) BSc	109
Master of Architecture MArch	70	Biochemistry (Integrated Master's) MSci	79	Chemical Engineering with Bioprocess Engineering MEng	89	Computer Science with Industrial Placement (Game Engineering) MComp	109
		Biomedical Genetics BSc	79	Chemical Engineering with Foundation Year MEng.....	50	Computer Science (Human-Computer Interaction) BSc.....	110
Art		Biomedical Genetics MSci.....	79	Chemical Engineering with Industry MEng	90	Computer Science with Industrial Placement (Human-Computer Interaction) BSc.....	110
Combined Honours BA	103	Biomedical Sciences BSc	80	Chemical Engineering with Process Control MEng.....	90	Computer Science (Mobile and Distributed Systems) BSc.....	110
Fine Art BA.....	143	Biomedical Sciences (Integrated Master's) MSci	80	Chemical Engineering with Sustainable Engineering MEng.....	90	Computer Science (Mobile and Distributed Systems) MComp.....	110
		Biomedical Sciences with Industrial Placement Year BSc	80	Chemistry BSc and MChem	94	Computer Science with Industrial Placement (Mobile and Distributed Systems) BSc.....	110
Biology		Medical Science (Deferred Choice) BSc.....	80	Chemistry (with Industrial Training Year) BSc and MChem	94	Computer Science with Industrial Placement (Mobile and Distributed Systems) MComp.....	110
Animal Science BSc	64	Pharmacology BSc.....	80	Chemistry (with Study Abroad) MChem	94	Computer Science (Security and Resilience) BSc.....	111
Biochemistry BSc	79	Physiological Sciences BSc	81	Chemistry with Medicinal Chemistry BSc and MChem	94	Computer Science (Security and Resilience) MComp	111
Biochemistry MSc	79	Sport and Exercise Science BSc	81	Chemistry with Medicinal Chemistry (with Industrial Training Year) BSc and MChem.....	94	Computer Science with Industrial Placement (Security and Resilience) BSc.....	111
Biology BSc.....	73			Chemistry with Medical Chemistry (with Study Abroad) MChem	94	Computer Science with Industrial Placement (Security and Resilience) MComp	111
Biology MBiol	73					Computer Science (Software Engineering) BSc.....	111
Biology (Cellular and Molecular Biology) BSc	73					Computer Science with Industrial Placement (Software Engineering) BSc.....	111
Biology (Cellular and Molecular Biology) MBiol	73						

Dentistry
Dental Surgery BDS.....115
Oral and Dental Health Sciences BSc.....116

Earth Science
Earth Science BSc.....118
Earth Science MEarthSci.....118

Economics
Economics BSc.....121
Economics and Business Management BA.....121
Economics and Finance BSc.....122
Economics and Mathematics BSc.....122
Mathematics with Finance BSc.....168
Politics and Economics BA.....202

Education
Combined Honours BA.....103
Education BA.....124

Electrical and Electronic Engineering
Automation and Control BEng.....127
Automation and Control with
Industrial Project MEng.....127
Digital Electronics BEng.....128
Digital Electronics with Industrial Project MEng.....128
Electrical and Electronic Engineering BEng.....128
Electrical and Electronic Engineering
with Foundation Year BEng and MEng.....50
Electrical and Electronic Engineering
with Industrial Project MEng.....128
Electrical Power Engineering BEng.....128
Electrical Power Engineering
with Industrial Project MEng.....128
Electronic Communications BEng.....128
Electronic Communications
with Industrial Project MEng.....128
Electronics and Computer Engineering BEng.....129
Electronics and Computer
Engineering with Industrial Project MEng.....129
Microelectronic Engineering BEng.....129
Microelectronic Engineering
with Industrial Project MEng.....129

Engineering
See Chemical Engineering, Civil Engineering, Electrical
and Electronic Engineering, Foundation Programmes,
Marine Technology, and Mechanical Engineering sections

English
Classical Studies and English BA.....101
Combined Honours BA.....103
English Language BA.....132
English Language and Literature BA.....133
English Literature BA.....134
English Literature and History BA.....134
English Literature with Creative Writing BA.....135
Linguistics BA.....135
Linguistics with Chinese or Japanese BA.....136
Linguistics with French, German or Spanish BA.....136
Modern Languages and Linguistics BA.....186

Environmental
Biology BSc.....73
Biology MBiol.....73
Biology (Ecology and Environmental Biology) BSc.....74
Biology (Ecology and Environmental Biology) MBiol.....74
Countryside Management BSc.....139
Earth Science BSc and MEarthSci.....118
Environmental Science BSc.....140
Environmental Sciences (Agricultural
and Environmental Science) MEnvSci.....140
Environmental Sciences
(Clean Technology) MEnvSci.....140
Environmental Sciences
(Ecosystem Management) MEnvSci.....140
Environmental Sciences
(Environmental Geochemistry) MEnvSci.....140
Geographic Information Science BSc.....148
Geography BA and BSc.....147
Geography and Planning BA.....148
Marine Biology BSc.....155
Marine Biology and Oceanography BSc.....156
Marine Zoology BSc.....156
Physical Geography BSc.....147
Rural Studies BSc.....139
Surveying and Mapping Science BSc.....214

Film Studies
Combined Honours BA.....103
Film and Media BA.....176
Film Practices BA.....176

Foundation Programmes
See pages 49–51 for our full range of
Foundation Programmes

Geography
Combined Honours BA.....103
Geographic Information Science BSc.....148
Geography BA and BSc.....147
Geography and Planning BA.....148
Physical Geography BSc.....147
Surveying and Mapping Science BSc.....214

History
Ancient History BA.....100
Ancient History and Archaeology BA.....67
Classical Studies BA.....100
Classical Studies and English BA.....101
Classics BA.....101
Combined Honours BA.....103
English Literature and History BA.....134
History BA.....151
History and Archaeology BA.....67
Politics and History BA.....151

History of Art
Combined Honours BA.....103
Fine Art BA.....143

Journalism
Combined Honours BA.....103
Journalism, Media and Culture BA.....177

Joint in Science
Accounting and Mathematics BSc.....57
Biology and Psychology BSc.....75
Economics and Mathematics BSc.....122
Mathematics and Psychology BSc.....168
Nutrition and Psychology BSc.....195

Languages (Classical)
See Classics and Ancient History section, page 99

Languages (East Asian)
Chinese Studies BA.....187
Combined Honours BA.....103
International Business Management BSc.....84
Japanese Studies BA.....187
Linguistics BA.....135
Linguistics with Chinese or Japanese BA.....136
Modern Languages BA.....186
Modern Languages and Business Studies BA.....186
Modern Languages and Linguistics BA.....186

Languages (Modern)
Combined Honours BA.....103
French, see Modern Languages BA.....186
German, see Modern Languages BA.....186
Government and European Union Studies BA.....202
International Business Management BSc.....84
Linguistics BA.....135
Linguistics with French, German or Spanish BA.....136
Modern Languages BA.....186
Modern Languages and Business Studies BA.....186
Modern Languages and Linguistics BA.....186
Modern Languages, Translation and Interpreting BA.....187
Spanish, Portuguese and
Latin American Studies BA.....187

Law
Law LLB.....153

Linguistics
Combined Honours BA.....103
English Language BA.....132
English Language and Literature BA.....133
Linguistics BA.....135
Linguistics with Chinese or Japanese BA.....136
Linguistics with French, German or Spanish BA.....136
Modern Languages and Linguistics BA.....186

Marine Science
Marine Biology BSc.....155
Marine Biology and Oceanography BSc.....156
Marine Zoology BSc.....156

Marine Technology
Marine Technology with Foundation Year
BEng and MEng.....50
Marine Technology with Marine Engineering
BEng and MEng.....159
Marine Technology with Naval Architecture
BEng and MEng.....159
Marine Technology with Offshore Engineering
BEng and MEng.....160
Marine Technology with Small Craft Technology
BEng and MEng.....160

Marketing
International Marketing and Management BSc
(London campus).....164
International Marketing and Management
with Placement BSc (London campus).....164
Marketing BSc.....163
Marketing and Management BA.....164

Mathematics and Statistics
Accounting and Mathematics BSc.....57
Economics and Mathematics BSc.....122
Mathematical Sciences with Foundation Year BSc.....49
Mathematics BSc and MMath.....167
Mathematics and Psychology BSc.....168
Mathematics and Statistics BSc and MMathStat.....167
Mathematics with Finance BSc.....168
Mathematics with Management BSc.....168
Statistics BSc.....167

Mechanical Engineering

Mechanical and Low Carbon
Transport Engineering MEng173

Mechanical Design and
Manufacturing Engineering BEng and MEng172

Mechanical Engineering BEng and MEng.....172

Mechanical Engineering with
Biomedical Engineering MEng.....173

Mechanical Engineering
with Foundation Year BEng and MEng50

Mechanical Engineering
with Mechatronics MEng.....173

Media

Combined Honours BA103

Film and Media BA176

Film Practices BA176

Journalism, Media and Culture BA.....177

Media, Communication and Cultural Studies BA.....177

Medicine

Medicine and Surgery MB BS.....181

Medicine and Surgery
(Accelerated Programme) MB BS.....182

Music

Combined Honours BA103

Contemporary and Popular Music BA.....190

Folk and Traditional Music BA.....190

Music BA and BMus.....191

Nutrition and Food

Food and Human Nutrition BSc.....194

Food Marketing and Nutrition BSc.....195

Nutrition and Psychology BSc195

Philosophy

Combined Honours BA103

Philosophy BA.....197

Physics

Physics BSc199

Physics MPhys199

Politics

Combined Honours BA103

Government and European Union Studies BA202

Politics BA.....201

Politics and Economics BA.....202

Politics and History BA151

Politics and Sociology BA.....208

Psychology

Biology and Psychology BSc.....75

Mathematics and Psychology BSc168

Nutrition and Psychology BSc195

Psychology BSc205

Science

See Biology, Chemistry and Physics sections

Sociology

Combined Honours BA103

Politics and Sociology BA208

Sociology BA.....207

Speech and Language Therapy

Speech and Language Sciences BSc.....211

Sport and Exercise

Sport and Exercise Science BSc81

Surveying and Mapping

Geographic Information Science BSc148

Physical Geography BSc147

Surveying and Mapping Science BSc214

Urban Planning

Architecture and Urban Planning BA.....70

Certificate in Planning Practice.....217

Geography and Planning BA.....148

Planning (Master of) MPlan217

Urban Planning BA217

London Campus

Accounting and Finance BSc.....56

Accounting and Finance with Placement BSc.....56

International Business Management BSc.....85

International Business Management
with Placement BSc.....85

International Marketing and Management BSc... 164

International Marketing and Management
with Placement BSc.....164

General Index

A

Academic excellence3, 24, 27, 28

Academic support28, 36–37

Accommodation22–23

Accommodation guarantee23

Advice and guidance36

Airport collection service.....38

Alternative formats.....239

Alumni45

Applications and admissions220

Arts and culture18–19

B

Bloggers.....7

British Universities and Colleges
Sports league (BUCS)20

Bursaries46

Business start-up44

Business, working with40, 42

C

Campus, London.....24

Campus, Newcastle14–15

Campus tours.....241

Campuses, international24–25

Care leavers34

Career Development Module42

Careers40–44

Cinema.....12

City, the8–13

Clubs and societies16

Comedy13

Computing facilities30

Cost of living.....9, 46–47

Counselling and mental health36

Countryside13, 31

Courier, The (student newspaper)16

Culture9, 12, 18–19

D

Deferred entry.....220

Disabled Students' Allowance (DSA).....36

Disability support36, 220

Disabled applicants36, 220

Disclaimers and acknowledgements.....228

Drama18

E

Eating out13

Emotional support36

Employability4–5, 40–44

Employers40–44

English language requirements38, 222

English language support38

Entrance requirements.....220–223

Entrepreneurs.....44

Equal opportunities policy239

Erasmus32

Extracurricular opportunities43

F

Facilities, academic30–31

Facilities, sport20

Farms31

Fees46–47

Finance46–47

Freshers' Week.....16

G

Gap year220

Give It A Go programme.....16

Global connections24–25

Go Play programme16, 20

Graduate success4–5, 40–44

Great North Museum.....18, 31

H

Hatton Gallery.....18, 31

HE fairs.....223, 241

How to apply (accommodation)23

How to apply (to study here)220–222

I

Immigration and visas.....38

Inclusive sport18

Industry, working with40–44

International Office.....32, 38

International qualifications222

International students38–39

INTO Newcastle University.....38–39, 52–53

IT facilities30

L

Laboratories	30–31
Language learning	30–31, 38
Language Resource Centre	30
Layar	6
Learning methods	29
Lecture recording system (ReCap)	30
Library	30
Living costs	9, 46–47
Loans	46
Location	10, 224
London campus	24
Loyola Centre	25

M

Maths-Aid	28
Mature applicants	221
Metro rail system	9, 224
Museums	18, 31
Music	12, 18

N

ncl+ Award	43
Newcastle, the city of	8–13
Newcastle Centre for the Literary Arts (NCLA)	18
Newcastle Student Radio (NSR)	16
Newcastle University International Singapore (NUIS)	25
Newcastle University London	24
Newcastle University Students' Union (NUSU)	16–17
Newcastle University Theatre Society (NUTS)	18
Newspaper, Student	16
Nightlife	9, 11, 12, 16
NUMed Malaysia	25

O

Open Days	241
-----------------	-----

P

PARTNERS	35, 223
Part-time work	42, 46
Peer mentoring	36
Performance sport	20
Personal tutor	36
Philip Robinson Library	30
Photo credits	239
Post-application Visit Days	241
Professional accreditation	42
Public lectures	18

R

Radio (Newcastle Student Radio)	16
ReCap (lecture recording service)	30
Recruitment fairs	40
Research	2–3, 26–27
Research Excellence Framework	26–27
Research vessel	31
Russell Group	27

S

Scholarships and grants	20, 46–47
Schools and colleges, Working with	223
Settling in	36, 38
Shopping	9, 11
Social life	9–12, 16–17
Societies and clubs	16–17, 20
Sport at the University	20–21
Sport in the city	10
Sports scholarships	20
Student Advice Centre	16, 36
Student loans	46–47
Student media	16
Student satisfaction	37
Students' Union	16–17
Study abroad	32–33
Support	34–37

T

Taster events	223
Teachers' Toolkit	223
Teaching and learning	26–27, 28–29
Theatre	12, 18
Travel instructions	224
Tuition fees	46–47

U

UCAS	220–223, 241
------------	--------------

V

Videos	7
Virtual learning environment	30
Visit us	240–241
Volunteering	16, 27, 43

W

Walton Medical and Dental Library	30
Wellbeing	36, 222
WiFi	30
Work abroad	32
Work experience	36, 43
Work placements	40–42
World faiths	36
Writing Development Centre	28

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 2017 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 2016. The most up-to-date and detailed source of information at any time is the undergraduate website at www.ncl.ac.uk/undergraduate

The matters covered by this publication are naturally 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

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) and whose addresses are given in this publication.

Equal Opportunities

The University's Single Equality Scheme 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

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

Acknowledgements

Edited by: Marketing and Student Recruitment Directorate.

Designed by: The Roundhouse Design Consultants, Newcastle upon Tyne.

Printed by: Sterling.

Typeset in: Bariol, Din and Helvetica

Photography by: D Bell; C Bishop; D Bolam; D Cazow; J Cheng; A Cook; C Davison; J Donoghue; J Fish; J Fisher; High Level Photography and Filming; M Horne; iStock Photo; P Jones; J McAdam; MH Kamaruzzamen; R Kenworthy; Newcastle Gateshead Initiative; Newcastle Portraits; Newcastle University Students' Union; Nexus; Northern Horizons Photography; D Passmore; G Peacock; Print Services, Robinson Library; N Pugh; P Roughley; I Roozbayani; L Scott-Robinson; S Tindle; Transport for London; S Veit-Wilson; A Wright; T Yong.

Thank you to all the staff and students in the academic schools around the University who have provided photographs or taken part in photoshoots for this Prospectus.

This Prospectus is printed on Amadeus 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 carbon emissions from the manufacture and distribution of the paper have been Carbon Balanced or Offset through the Carbon Neutral Company. This publication can be recycled to further enhance its sustainability.

© Newcastle University, 2016.

The University of Newcastle upon Tyne trading as Newcastle University.



Open Days

Want to know more before you make your decision? There is no better way to get a feel for Newcastle than to visit us. Book onto an Open Day now.

- Explore our beautiful campus and city
- Experience our world-famous welcome
- Get insider info from our current students
- Meet our staff and inspirational academics
- Check out our accommodation sites

Our Open Days attract over 35,000 visitors a year. 95 per cent of our visitors in 2015 said they were more likely or as likely to apply after visiting us! www.ncl.ac.uk/openday

1 July
2 July
17 September
2016

Can't make it to an Open Day?

There are other ways to visit throughout the year, or to meet our staff at events near you.

- **Post-application Visit Days** – after you've applied, you may be invited to a Post-application Visit Day, to learn more about the course and school facilities, and meet students and staff
- **Student-led campus tours** – book onto a student-led walking tour of campus and see our libraries, Students' Union, sports facilities and more. Running fortnightly from May to November
- **Self-guided tour** – our campus is open to the public, so grab a *Self-guided Campus Tour* leaflet and enjoy exploring!
- **UCAS HE Fairs** – we attend the majority of UCAS fairs between March and July. So if you have any questions, pop in and meet us!
- **Make a virtual visit** – explore the campus and city online with our virtual tours and videos. Or search 'Newcastle University' in Google Maps and see inside our buildings
- **International visitors** – contact our International Office to arrange individual or small group visits to campus, or check www.ncl.ac.uk/international to see when we're visiting your country



Find out more
www.ncl.ac.uk/visit



Student Services

Newcastle University, King's Gate
Newcastle upon Tyne NE1 7RU
United Kingdom

Further information

Telephone: 0191 208 3333 (+44 191 208 3333)
Enquire online: www.ncl.ac.uk/enquiries

For the most up-to-date and
detailed information, visit:

www.ncl.ac.uk

This publication is intended as advance publicity
for information and guidance purposes only,
and does not constitute a contract (see page 239).
Details included are correct at the time of going
to press in January 2016.

When you have finished with
this publication please recycle it



**FSC
LOGO**



CarbonNeutral.com

DIP - POR330532