Newcastle University

Undergraduate Prospectus 2018 Entry

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Times Higher Education Top 200 global university*

For the most detailed and up-to-date information Check Online www.ncl.ac.uk/undergraduate

Times Higher Education World University Rankings 2015–16

Welcome to Newcastle

Newcastle University is a world-class university with a proud tradition, committed to 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 graduate success is supported by our strong graduate employability record.

As a university we are committed to diversity and are proud of our international outlook, with a student community that includes students from throughout the UK and 135 countries worldwide.

We look forward to welcoming you here.

Professor Chris Day, Vice-Chancellor and President

We welcome 6,000 international students from 135 countries

Top 1% of world universities*

*QS World University Rankings 2016

Satisfied Students

In the 2016 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, 90% of our students are satisfied with their experience here.

% of students who agree or strongly agree to satisfaction in:	Newcastle	HE sector
Overall satisfaction	90%	86%
The teaching on my course	90%	87%
Assessment and feedback	73%	73%
Academic support	86%	82%
Organisation and management	87%	79%
Learning resources	91%	87%
Personal development	83%	83%
Students' Union	80%	69%

Graduates in Demand

Newcastle provides you with the opportunities to gain the professional, personal and entrepreneurial skills you need to succeed, whatever you choose to do after you graduate.

Our work 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 Land Rover*. 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, report from High Fliers Research, 2012–17
**Destinations of Leavers from Higher Education 2014–15
***QS Graduate Employability Rankings® 2017, ranked out of 2,300 world universities

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

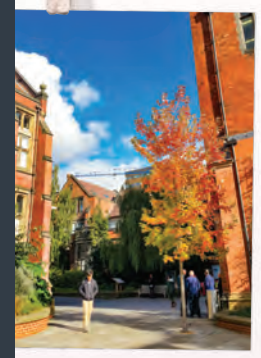
- Follow our student bloggers
- Read top tips
- Ask questions
- Watch live webinars

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

- **/newcastleuniversity**
- **/StudentsNCL**
- **/newcastleuni**
- **/newcastleUniOfficial**
- **newcastleuni**
- **search 'Newcastle University'**
- **weibo.com/UKNCL**
- **search 'NCL-UK'**



Maduka
Student blogger

Hannah
Student blogger

ON COURSE TO NCL
www.ncl.ac.uk/oncoursetoncl

Thanks to our current students for supplying the photographs used on this page!

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. Plus 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 are plenty of student-friendly deals to help you make the most of your time here.

Affordable and fun

Newcastle is the third most affordable UK city for students*, 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've been voted joint first for social life in the UK for the past two years**.

Famously friendly

There's a reason Newcastle has a reputation as one of the friendliest cities in the UK – it is! We're also proud to be the happiest city in the UK***. Newcastle is welcoming, multicultural and safe – you can't help but feel at home here.

Pretty city

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

Just the right size

Newcastle is a big city in a small space. We're big enough that there's always something to do, and small enough that you're never far from the action. Most places in the city are just a short walk from 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!

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/undergraduate/newcastle

*Royal Bank of Scotland Student Living Index 2016
** *Times Higher Education* Student Experience Survey 2015 and 2016
***Flash Eurobarometer survey, The European Commission, 2015

** *Times Higher Education* Student Experience Survey 2015 and 2016

About the City

No matter what your interests and passions are, we're sure that Newcastle has something for you. With so much to see and do, we're proud of what our city has to offer.

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 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, which welcomes over 50,000 runners to the city each year.

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. You'll find big brands on Northumberland Street, chic boutiques in High Bridge, designer names around the Monument, and bargains galore at Grainger Market. Eldon Square is one of the UK's largest city-centre malls with 150 outlets, and Metrocentre, Europe's largest shopping and leisure centre, is just 15 minutes away by bus.

Arts and culture

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

Cinema

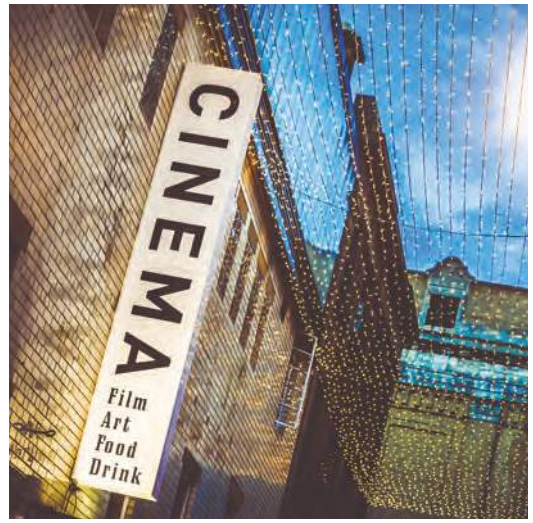
Grab your popcorn and 3D specs because Newcastle loves the movies. Screens in the city centre show everything from Hollywood blockbusters to international arthouse. The Tyneside Cinema is an art deco cinema showing cult classics and world films, and there's an IMAX at the nearby Metrocentre. There's also an annual Film & Comic Con.

> 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

Happiest UK city*

*Flash Eurobarometer survey, The European Commission, 2015



About the City (cont.)

Music

From international pop and rock acts like Olly Murs and Bastille performing at the Metro Radio Arena and O_2 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 the Arena... yet!

Comedy

Laid-back Geordies love to laugh and the city has a growing reputation for live comedy. Top names on the international circuit like Russell Howard and Josh Widdicombe fill major venues in 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.

Food and drink

From the 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. Chinatown has plenty of places to enjoy Asian cuisine, and there's a wide range of restaurants offering global flavours.

Coast and countryside

Don't let our city-centre attractions stop you exploring further afield. Just 25 minutes away by Metro, the coastal towns of Whitley Bay and Tynemouth are easily accessible, providing seaside delights including 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.

Well connected

We're just three hours from London by train or an hour by plane. The city is well connected to the rest of the UK via our city-centre coach and train stations. So it's easy to get around. Or why not use the city as a base to explore further afield? Low-cost flights from our international airport to destinations within the UK and Europe make city breaks temptingly close.

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. Thanks to multimillion-pound investments, it is always evolving to give you a great experience.

Central 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.

Fantastic facilities

Our campus is home to a wide range of facilities to support your studies (see page 28) but we also have some off-campus too. These are specialist facilities you can't get in the city centre, like our marine lab on the coast, and two working farms.

Explore our campus and buildings online with Google Maps

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

Red brick, green spaces

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 one of only 11 in the UK to have the DEFRA Green Flag Award for sustainability, cleanliness and conservation. We are also ranked as one of the greenest universities in the UK*.

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/undergraduate/visit**

*Eighth in the People & Planet University League, 2016

*Lloyds Bank Student Life Survey 2015

Students' Union

From Freshers' Week to your graduation, from a morning coffee to a friendly ear at Nightline, 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 life and is right at the heart of campus.

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

We offer

- Multi-*Guardian*-award-winning student newspaper *(The Courier)*
- Freshers' Week events and activities
- Over 200 clubs and societies to join
- Volunteering with Go Volunteer and Raising and Giving (RAG) Week
- 'Give it a Go' activity programme
- Hall Sport and Inclusive Sport
- Subway sandwiches, Starbucks and Domino's Pizza on site
- Student bar 'Mens Bar' providing food and drinks
- Students' Union shop – grab your must-have hoodie or a sandwich
- 1,500-capacity gig space
- Weekly club nights in Venue
- Quiz nights
- Student Advice Centre and confidential helpline (Nightline)
- Quiet and social study spaces in the Hub and NUSU Central, available 24 hours a day

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

Find out more
www.nusu.co.uk

/NewcastleSU **/newcastleSU**

Students' Union of the year*

*Educate North Awards (2016)

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: Hancock, which is one of the region's most popular attractions. The museum houses an impressive collection of 3,500 natural history, archaeological and ethnographic artefacts, and highlights include a replica T-Rex skeleton, ancient Egyptian mummies and a planetarium. **https://greatnorthmuseum.org.uk**

Lectures and literature

Our free public lectures series, *Insights*, welcomes internationally respected speakers to campus each term, such as Laura Bates (founder of the Everyday Sexism Project) and Paul Mason (former economics editor at Channel 4 News). **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 Jeannette Winterson, Ian McEwan and Kazuo Ishiguro. **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 Latino 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.

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.

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 in the King's Hall, offers performances by professional musicians, followed by Music student performances. The Newcastle University Symphony Orchestra performs twice a year and you can also attend interim recitals from final-year Music students. **www.ncl.ac.uk/events/live-music**

The Students' Union hosts gigs from top UK touring acts, which have included Kid Ink, George Ezra and Twin Atlantic. There are also regular lunchtime acoustic sets through our Coffee House Sessions. You can join or start a student music ensemble, such as our jazz or Symphony Orchestra, and meet like-minded students who share your musical tastes through groups like the Rock society.

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.

Sport

Newcastle is a top 10 university for sport*. Everyone has the opportunity to enjoy sport here, whatever their level. From taster sessions and exercise classes, to team sports and representing the University regionally and nationally, you're sure to find something to suit you.

Facilities

The University Sports Centre has a wide range of facilities for sport and physical recreation. It's open from 7am to 10pm** on weekdays, so you'll have plenty of time to make the most of our facilities even if your academic timetable and social calendar keep you busy. You can explore our Sports Centre online with Google Maps.

Facilities include:

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

We're investing in a sports facilities expansion programme to develop an eight-court sports hall, four squash courts, a strength and conditioning suite and two exercise studios to provide more opportunities for students to train and play.

Sport for all

We encourage students of all abilities to get involved in sport. We have an extensive range of recreational sports on offer through our campus sport programmes. These enable you to play sport regularly in a friendly, competitive environment **www.ncl.ac.uk/nclsport/campus**

There is a varied and vibrant range of exercise classes for you to try throughout the year.

The 'Give it a Go' taster programme provides opportunities to try out new sports in a fun and friendly environment where no commitment or experience are necessary **www.nusu.co.uk/getinvolved/giveitago**

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. Full details are available at **www.nusu.co.uk/getinvolved/sports/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 Universities and Colleges Sport (BUCS) league competing against other university teams throughout the UK.

We have over 60 clubs, from football, rugby and hockey to aikido, parachuting, windsurfing and snowboarding. Many clubs are supported by professional coaches. See full details at **www.nusu.co.uk/getinvolved/sml/a-z**

Sports 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 packages are designed to help promising students achieve great things in the sporting arena. Support comprises financial awards, professional coaching, sports science services and a sports tutor to help you achieve your full potential.

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/nclsport/performance/scholarships**

*British Universities and Colleges Sport league 2015–16 rankings
**Weekends 9am to 9pm term time and 9am to 5pm vacations

UK top 10 university for sport*

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

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. 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.

Types of accommodation

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

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

Visit our accommodation

You can tour a number of sites on our annual Open Days (see page 252) or during an accommodation tour where a resident will show you their room and facilities. **www.ncl.ac.uk/accommodation/new-students/tours**

*Correct at the time of going to print (January 2017)

What it costs

Costs vary depending on what type of accommodation you choose. In 2017, our accommodation costs ranged from £84.14 per week for a self-catered room with shared bathroom, to £167.09 for a catered room with *en suite* facilities. Prices include insurance, internet and utility bills, and you can spread the cost across the year. Prices for 2018 entry will be available on our website from March 2018.

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 2018. 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 2018, 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 2018
- apply online for accommodation by 30 June 2018

For international fee status students, this guarantee applies to the duration of your course. Find out more: **www.ncl.ac.uk/accommodation/new-students/guarantee/#covered**

360° Tour our accommodation online
www.ncl.ac.uk/accommodation/university/undergraduate

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

**The top 10 halls for 2015, National Student Housing Survey, Red Brick Research

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
- inspiring learning through self-organised learning environments
- helping cities adapt to the increasing demands of their population

Some recent examples of our students working alongside academics include:

- using biology to create a unique living lightbulb
- developing and launching a business news app
- uncovering a Roman villa in Somerset
- creating a stargazing community space in Kielder

> Lecturers are continually researching their particular fields and exploring new interests, so that I can be assured that what I'm being taught is the most up to date.

Daniel, History and Archaeology BA Honours

Investing in you...

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

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

We are a 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.

Get involved

You'll have plenty of opportunities to conduct your own research, making your own discoveries alongside our academic staff. All students will undertake a dissertation or research project. This 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
- become one of the next generation of researchers, innovators and entrepreneurs

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

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

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 your 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 and six million e-books, our multi-award-winning Library is a great place to start your journey of discovery. Plus, our international study opportunities mean your learning journey could take you anywhere in the world!

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. Most of our degrees offer the opportunity for you to incorporate a year-long work placement into your studies, whilst Career Development Modules let you gain academic credit for part-time work.

Celebrated teachers

You'll join an inspirational 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 (HEA) for excellent practice and outstanding achievement in teaching and learning, and the majority are HEA Fellows, recognised for their commitment to professionalism in learning and teaching. Our students also celebrate their teachers through the Students' Union-run Teaching Excellence Awards each year.
www.ncl.ac.uk/undergraduate/teaching

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. Covering 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 40). 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

81% of our 2015–16 graduates achieved a First or 2:1

95% satisfaction rate for expert lecturers*

*International Student Barometer Autumn 2015

Facilities and Resources

At Newcastle you'll have everything you need to succeed – award-winning library services, online learning and specialist facilities for your chosen subject. We continue to invest heavily in providing outstanding facilities and IT to support your learning.

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 Marjorie Robinson Library Rooms, with innovative digital learning spaces for individuals and groups. We have over one million print books, six million e-books, a range of specialist resources and knowledgeable librarians who can support students of all disciplines. **www.ncl.ac.uk/library/about**

IT facilities

Free WiFi, over 3,000 computers, plenty of printers, and helpful IT support staff are all available on campus. So whether you want to work on an essay in a computer cluster, surf the web in the sun, or just need IT support and advice, the University's IT Service is 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/sml/study/language-programme**

Revise and read online

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

*International Student Barometer Autumn 2015 (out of 159 participating world institutions)

Subject facilities

Our modern facilities help prepare you for life after Uni, so you can hit the ground running when you get that graduate job! You'll have access to specialist facilities related to your chosen subject, for example:

- an on-campus museum and art gallery
- a sea-going research vessel, coastal station and marine lab
- two commercial farms and a biological field station
- music studios and rehearsal spaces
- anatomy labs and clinical skills suite
- on-campus language clinics and analysis labs
- studios for architecture and art
- media studios, recording and editing equipment
- translation and interpreting suites
- smart grid lab and energy storage test bed

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

Work Placements

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

Boost your CV

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

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

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

How it works

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

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

The support continues once you're on placement. A member of staff will visit you at least once, to check how you're getting on***.

You'll also complete a placement learning report to help you reflect on the skills you've developed and understand how to communicate these effectively to future employers. Your placement extends your degree by a year. Like any job, placements are subject to availability and aren't guaranteed. Some terms and conditions apply, so visit our website to find out more.

Other opportunities

Don't want to take a placement? There are plenty of other opportunities to gain work experience:

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

Find out more: **www.ncl.ac.uk/careers/workexperience/placement**

*A small number of exceptions apply; check our website for information
**International students should contact the Visa Team to discuss the impact on their current UK visa
***Students on an international work placement will receive contact via Skype, not in person

Gain advantage in the jobs market with a year-long work placement

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 or 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?

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

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

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

Study abroad opportunities can last from a single semester to a full year. Usually you'll be studying at a university but there may also be opportunities to work abroad.

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

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

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

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 practice
- **Work abroad** – most of our degrees include a year-long work placement, which you can apply to take abroad (see page 30), or you could organise a 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 help
- **Take a study trip** – many of our degrees offer optional study trips and fieldwork in other countries

Study abroad at Newcastle University

Newcastle University is a great choice for students studying in their home country who want to study abroad as part of their degree. Students from our partner universities can spend a year or semester on exchange at Newcastle University. There are also one- or two-semester options available via the Study Abroad route (fee-paying) for students studying at any institution around the world.
www.ncl.ac.uk/mobility/newcastle

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

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

Student Profile

Caitlin's year abroad

I'm on my year abroad as an exchange student at Kyushu University in Japan. I study Japanese language, culture and sociology with 50 other exchange students from around the world. The exchange programme includes a lot of cultural opportunities too. We have host families that we meet up with and every few weeks there are trips to different places around Kyushu. We've been to harvest rice and have met sumo wrestlers!

Studying abroad is definitely an experience I would recommend, even if you're not studying a language. I had no idea what to expect from living in Japan but it's been amazing to experience something new every day and to get to know a new culture. It changed how I think about my future because I now know that I'd like to work abroad. Meeting people from all over the world has opened my eyes to so many new career options.

Caitlin, Combined Honours (Geography and Japanese) BA Honours

Our London and International Campuses

Newcastle University is an internationally recognised university with global geographic reach. We're in the top 100 most international universities in the world* and we have campuses in Newcastle, London, Singapore and Malaysia. Our international outlook, combined with our global reputation for academic excellence, mean we're a first-choice destination for students from around the world.

Newcastle University London

Through our location in the heart of the City of London, we have established partnerships with a range of national and international businesses headquartered in the city. This allows us to offer an industry-immersive education, enabling students to realise their potential and become tomorrow's business leaders. Our students benefit from regular exposure to the world of global business coupled with a Russell Group education.

For more information about undergraduate degrees and University preparation courses see pages 52–56 or visit: **www.ncl.ac.uk/london**

Newcastle University International Singapore (NUIS)

We deliver top-quality joint degrees in Singapore, through our long-established partnership with the Singapore Institute of Technology (SIT). **www.ncl.ac.uk/singapore**

Newcastle University Medicine Malaysia (NUMed)

We have a wholly-owned branch campus in Malaysia, offering Newcastle's medical and biomedical degrees from our high-spec, purpose-built facilities in EduCity, Johor. **www.ncl.ac.uk/numed**

Loyola Study Abroad Center

American students can study in Newcastle through our joint study abroad center, in partnership with Loyola University Maryland, USA. **www.loyola.edu/academics/newcastle/about**

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.

*88th most international university in the world, *Times Higher Education* World University Rankings 2015–16

Newcastle University Medicine Malaysia (NUMed)

Newcastle University London

Newcastle University International Singapore (NUIS)

International Students

Over 6,000 international students currently call Newcastle University home and have been warmly welcomed to our cosmopolitan city. To support your move to Newcastle and ensure your transition is as smooth as possible, 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.

Supportive community

We value our diverse student body and warmly welcome international students into the heart of our community. We also support the #WeAreInternational campaign, celebrating and supporting international students, staff and research in higher education. We are proud of our global network of over 180,000 graduates, working across all seven continents in the world.

Meeting us

Our international staff regularly travel abroad to meet new students, discuss the opportunities available and are on-hand to answer any questions you may have. We also work with a network of international education agents who can advise and support you through the application process. To find out more about our in-country visits or identify an educational agent near you, visit: **www.ncl.ac.uk/international**

Immigration and visa support

Students from outside the UK or EU will normally have to apply for a study visa under the Tier 4 points-based immigration system. We have a dedicated Visa Team who can provide advice and guidance on the process of securing a visa and other immigration issues. **www.ncl.ac.uk/students/progress/visa**

International Welcome

Our International Welcome programme gives you the opportunity to 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 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 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 an adequate level of English before you begin your studies.

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 during your time with us.

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

- free in-sessional 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

We also have courses available on campus through INTO Newcastle University, to prepare you for university study. See opposite and page 51.

A range of English language and academic preparation courses is also offered at our Newcastle University London campus. See page 56.

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

Our INTO Newcastle University Centre

INTO Newcastle University provides courses that prepare international students for university study. We can help you:

- study English in the UK, prior to making your application to a UK university
- study an academic course to prepare you to start a degree at Newcastle University
- improve your English language skills while studying at Newcastle University

Over the last eight years, we've helped over 7,500 students develop the high levels of academic knowledge and English language skills required for university.

Based in the heart of campus, and just minutes from the city centre, we offer state-of-the-art teaching and learning facilities and dedicated accommodation for up to 1,000 international students.

We provide university-standard learning spaces and use teaching methods including lectures, hands-on laboratory work, seminars, tutorials, and supported self-study and e-learning.

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

See page 51 for information about courses we offer.

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

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

Find out more
www.intostudy.com/newcastle

*International Student Barometer Autumn 2015, survey of Newcastle University students

**International Student Barometer Autumn 2015 (out of 49 participating UK institutions), survey of Newcastle University students

Supporting Your Application

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.

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 such as dyslexia/dyspraxia, Autistic Spectrum Disorder or AD(H)D, 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

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.

PARTNERS Programme – receive a lower offer

If you're less likely to go to university because of your family background, low income or school opportunities, our nationally recognised PARTNERS Programme can help. It is a supported entry route to help talented applicants overcome barriers to applying here. So far, we've supported over 3,500 students to enter the University who might otherwise not have done.

You'll complete a Summer School at the University in the July of Year 13/second year of college, which includes introductory sessions in the subject area of the course you have applied to, and sessions to develop key transitional skills necessary for success at university.

A PARTNERS offer will be lower than the typical offer from the University, usually up to two grades, and will include successful completion of the Summer School.

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.

Check if you're eligible to apply to PARTNERS and find out more at: www.ncl.ac.uk/schools/partners

MENTOR SUPPORT

Lower Offer

SUMMER SCHOOL

Student Profile

- Dan
- English Language BA Honours
- Completed PARTNERS in 2013

How did PARTNERS help you apply to university?

After my AS levels, I was still unsure about what I wanted to do. Being the first person from my family to go to university, I didn't know much about it. Newcastle University Ambassadors came to visit my school to talk about the PARTNERS Programme, which offered a place at Newcastle University with lower grades. I knew how fantastic Newcastle is as a city and this supported my decision.

What did you enjoy most about the Summer School?

The Summer School gave me experience of university life before starting for real. I made loads of friends, which was really helpful as it relieved my nerves about meeting new people. I also gained experience of the teaching style at Newcastle, and met some of the lecturers who would be teaching me on my course. I felt a step ahead of everyone else as a result of attending the Summer School.

Any advice for potential PARTNERS students?

I would definitely recommend PARTNERS! It really helped me to make the move to university. Even if university is not a firm option for you, it is a great experience and may just help you make the best decision for you.

PARTNERS.
www.ncl.ac.uk/schools/**partners**

Supporting Your Studies

Everyone needs some help from time to time – that's where our friendly advisers and therapists 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** – academic school induction events are designed to help you get to know staff and fellow students
- **International Welcome Week** – helps international students settle in quickly and make friends
- **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, 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 such as dyslexia/dyspraxia, Autistic Spectrum Disorder or AD(H)D. 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 help to support your academic success. Our professional therapists provide short-term counselling and therapeutic support if you need it. The service is available throughout the year and without charge. Also, the Students' Union runs a confidential helpline, Nightline.

World faiths

Chaplains of diverse faiths are based on campus, and can support students of any faith or none. There is a Muslim prayer room on campus, and student societies representing many of the major religions.
www.ncl.ac.uk/students/chaplaincy

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

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

Joint 1st
for student support in the UK*

Times Higher Education Student Experience Survey 2016

Student Finance

Tuition fees for UK, EU and international students entering the University in **2018** have not yet been confirmed at the time of going to print in January 2017. We will update our website as soon as this information becomes available at **www.ncl.ac.uk/undergraduate/finance**

UK students

For **2017–18** Newcastle University is charging a tuition fee of **£9,250** to new UK students. As a general principle, you should expect the tuition fee to increase in each subsequent academic year of your course, subject to government regulations on fee increases and in line with inflation.

Student fee loans will rise in line with the maximum fee allowed, to ensure that higher education remains affordable for all.

You can find out more about fee discounts, for example for placement years, at **www.ncl.ac.uk/undergraduate/degrees**

Good to know!

Current information for UK* students:

- You don't have to pay any tuition fees while you are studying
- You are entitled to a loan to cover the full cost of your tuition fees while you are at university
- You 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% of £4,000, which works out as £6.92 per week**

EU students

Newcastle University EU undergraduate tuition fees for **2017–18** will be **£9,250**.

Tuition fees for EU students entering the University in **2018** have not yet been confirmed. We will update our website as soon as this information becomes available at **www.ncl.ac.uk/undergraduate/finance**

International (non-EU) students

Tuition fees for international students entering the University in 2018 have not yet been confirmed. We will publish 2018 entry fees on our website as soon as this information becomes available at **www.ncl.ac.uk/undergraduate/finance**

The tuition fees for full-time international students are different depending on the degree that you choose to study.

3rd most affordable UK city for students***

*Loans information for UK students entering the University in 2018 has yet to be confirmed

**Student Finance England arrangements. Students from Scotland, Wales and Northern Ireland should refer to their own student finance body

***Royal Bank of Scotland Student Living Index 2016

Scholarships

Scholarships for UK/EU students

We invest millions of pounds in financial support for students who choose to come and study here. The range of scholarships on offer includes scholarships for particular subjects, sports scholarships and targeted support for UK students from lower income families. For more information, see **www.ncl.ac.uk/undergraduate/finance**

Scholarships and fee discounts for international students

Newcastle University offers a number of partial scholarships to international students. Check out our funding information online for the most up-to-date scholarships and fee discount information **www.ncl.ac.uk/undergraduate/finance/international**

Vice-Chancellor's International Scholarships – these are competitive awards for international students worth £3,000 for the first year of study (conditions apply).

International Family Discounts – a 10% 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).

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

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. Our Careers Service can also help you access part-time, temporary or vacation work at Newcastle University and businesses in the Newcastle area.

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 **ww.ncl.ac.uk/undergraduate/finance**

Award-winning Careers Support

A degree from Newcastle University can open the door to the world's leading employers. We have an outstanding reputation as one of the top producers of in-demand graduates. So studying with us is a sound investment in your professional future.

Your excellent career prospects

94% of our 2015 UK-domiciled graduates entered employment or further study within six months of graduating. This is above the national average of 93.2%*.

The Times and Sunday Times Good University Guide 2017 reports that 82.6% of our graduates in work, study or both are in professional jobs or graduate-level study.

We are 15th in the UK for graduate prospects** and rank among the top universities in the country.

Strong employer links

We're consistently in the top 20 most-targeted universities by *The Times* Top 100 Employers. This means that the companies that students most want to work for, rate Newcastle as one of the best universities to recruit from and companies like Jaguar Land Rover, Accenture, PwC and IBM come looking for you! 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.

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

Here's what employers say...

"Newcastle University stands out to us for fresh-thinking, well-researched students, who actively seek the knowledge to help them perform well in their graduate positions, but also during the recruitment process. We have had great success from graduates who have joined our Software Engineering and Client Delivery Schemes from Newcastle University and hope to continue this through our close engagement with the students."

Katrina Beadle, Internal Recruitment Specialist, Accenture

"Newcastle graduates have always been a great success at Unilever. We want to continue this tradition and carry on receiving these top-quality students into our placements and Unilever Future Leader Programmes."

Katie Westerby, UFLP Marketing, Unilever

*Destinations of Leavers from Higher Education Survey 2014–15
***The Times and Sunday Times Good University Guide 2017*
***Top 20 'most targeted' university by the UK's leading employers for the last five years, The Graduate Market report from High Fliers Research, 2012–17

Top 20
'most targeted' UK university***

15th
in UK for graduate prospects**

Start Your Own Business

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

Many of our students want to pursue their own business ideas and we provide a range of services to support entrepreneurship. You'll be supported by a dedicated team of business advisers, entrepreneurs, professional partners and a programme of workshops.

In the past 10 years, our outstanding support has helped hundreds of students launch their own businesses, including Radfan, Mediwikis, Stu Brew, and Beauty by the Geeks. Our ongoing support continues long after you graduate, with help available for up to three years.

Award-winning Careers Support (cont.)

Your degree has the potential to be a springboard to a dream career. But what happens if you don't know what you want to do or who to apply to? That's where our award-winning Careers Service comes in, to help you understand your skills, refine your career plans and write a winning application to get your dream job!

Our Careers Service

Our 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.

We support you to think about your future early in your studies. To help you, we provide:

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

We also give you opportunities to work around your studies to boost your CV and your confidence. You benefit from our:

- optional work placement year, which is open to all students (see page 30)*
- ncl+ initiative, which brings together a range of activities that you can get involved in outside of your degree
- links with regional businesses for work experience and graduate opportunities
- Career Development Modules that boost your skills whilst you study
- over 3,000 vacancies, work experience and placement opportunities that we advertise each year
- industry-relevant practical projects and professional input

What's more, you can access our services for up to three years after graduation, so you've got our support as you start out and progress in your new career.

The wide range of ways in which we develop your employability has been specially commended by the UK Quality Assurance Agency (QAA). Our degrees are relevant to the workplace and tailored content gives you the professional skills employers look for in graduate recruits. Many of our degrees are also accredited by professional organisations and have professional guest lectures.

Optional work placement year to enhance your employability

*A small number of exceptions apply; check our website for information

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

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

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 over 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 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**

Foundation Programmes

Our range of Foundation programmes provide pathways to our degrees for students who do not meet the entry requirements for Stage 1 entry.

Mathematics and Physics Foundation Programmes

Mathematical Sciences with Foundation Year

BSc Honours | G101 | 4 years

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 – see page 169.

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**

Physics with Foundation Year

BSc Honours | F304 | 4 years

MPhys Honours | F305 | 5 years

If you do not have the right mathematics or physics qualifications for direct entry to a physics degree at Newcastle, you might be eligible to take our Foundation Year.

This full-time programme covers core topics including foundation mathematics, foundation physics and an individual project, to prepare you to progress to an undergraduate physics degree.

Successful completion of the Foundation Year leads to progression to Stage 1 of one of our physics degrees – see page 207.

Entrance requirements

See online for specific requirements. Please note this programme is not aimed at students who already have good grade A levels in Mathematics or Physics.

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 mathematical sciences or physics at Newcastle University and you are only missing the required mathematics qualifications for direct entry to Stage 1, you may be invited to take our Pre-Entry Mathematics Course.

Passing this course will provide you with the requisite mathematical skills needed and allows direct entry to Stage 1 of your chosen mathematical sciences or physics degree.

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

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 cover a range of engineering and science topics and include a project, as well as laboratory work related to the engineering degree you wish to study.

Our programmes	UCAS code
Engineering with Foundation Year	
BEng Honours	H101
MEng Honours	H103
Leads to any of our Engineering degrees	
Chemical Engineering with Foundation Year	
BEng Honours	H814
MEng Honours	H816
Leads to one of our Chemical Engineering degrees – see page 89	
Civil Engineering with Foundation Year	
BEng Honours	H201
MEng Honours	H291
Leads to one of our Civil Engineering degrees – see page 98	
Electrical and Electronic Engineering with Foundation Year	
BEng Honours	H604
MEng Honours	H606
Leads to one of our Electrical and Electronic Engineering degrees – see page 131	
Marine Technology with Foundation Year	
BEng Honours	J615
MEng Honours	J616
Leads to one of our Marine Technology degrees – see page 162	
Mechanical Engineering with Foundation Year	
BEng Honours	H304
MEng Honours	H305
Leads to one of our Mechanical Engineering degrees – see page 173	

Entrance requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

A levels: Offers in the range of AAA–AAB depending on the degree chosen.

International Baccalaureate: Offers in the range of 35–37 points depending on the degree chosen.

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 take our Pre-Entry Mathematics Course.

Passing this course will provide you with the requisite mathematical skills needed and 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

Foundation Programmes (cont.)

Northumberland College Foundation Degree Programmes

In partnership with Northumberland College, we offer a number of Foundation Degree programmes related to animal- and land-based subjects. Successful completion of one of these programmes offers direct entry to Stage 2 of one of the range of degrees that we offer, subject to the achievement of specific grades.

Programmes available

Foundation Degree in Applied Animal Management

Leads to our Animal Science BSc Honours degree – see page 67

Foundation Degree in Equestrian Performance and Coaching

Leads to our Animal Science BSc Honours degree – see page 67

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

Foundation Degree in Rural Tourism and Enterprise Management

Leads to our Rural Studies BSc Honours degree – see page 145

Foundation Degree in Agriculture

Leads to one of our Agriculture degrees – see page 64

Foundation Degree in Environmental Conservation

Leads to our Countryside Management BSc Honours or Environmental Science BSc Honours degree – see page 144

Entrance requirements

A levels: A combination of A or A/S levels: 48 UCAS tariff points or above is required. For example two A levels at D grade would accrue 48 UCAS tariff points.

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

Level 3 Diploma series (City and Guilds/ BTEC) in a relevant subject. For example Subsidiary Diploma at Distinction/D or above, 90 Credit Diploma at Merit/MM or above, Diploma at Merit/MP or above, Extended Diploma at Pass/PPP or above accrued in no more than two consecutive years.

Additional requirements: Applicants are required to have achieved GCSEs at grade C or 4 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 Degree programme, you should apply to Northumberland College via UCAS. Once at Northumberland College, you will make a second UCAS application to apply for progression to Newcastle University.

Find out more at **www.northumberland.ac.uk** for details of information and enrolment sessions at Kirkley Hall Campus and for details of how to contact Kirkley Hall direct.

English Language and University Preparation Courses

We offer a wide range of English language and academic preparation courses through our INTO Newcastle University Centre. If you are an international or EU student thinking about studying at Newcastle University, we can help you prepare academically, gain the appropriate qualifications and meet the English language requirements of your chosen degree. For more information about INTO Newcastle University see page 37.

For details of English language requirements for our degrees see page 234 or check online: **www.ncl.ac.uk/international/courses/language**

English language courses

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. Gain extra credits for your home university or prepare for study in the UK.

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, this course provides intensive English language preparation for students to improve their English.

Start dates in June and July

University preparation courses

International Foundation

Preparing you to progress to the first year of an undergraduate degree.

Pathways available in:

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

Start dates in July, September and January

International Year One

Preparing you for direct entry to the second year of an undergraduate degree.

Pathways available in:

- Architecture
- Business

Start dates in July, September and January

How to apply

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

Visit: **www.intostudy.com/newcastle**
Apply online: **www.intostudy.com/en-gb/apply**
Enquiries: **ukadmissions@intoglobal.com**

London Campus

We support students to become global business leaders of the future, by connecting a Newcastle University education with an industry-immersive learning experience in the City of London. Our London campus works hand in hand with industry to help students develop the skills and knowledge that top employers demand. You'll benefit from the close-knit, supportive learning community, as well as our reputation as one of the UK's leading universities.

- **Boost your CV with work placements and internships** – take a one-year work placement as part of your degree, or a shorter placement sponsored by Santander
- **Engage in masterclasses and public debates** – top business leaders give weekly masterclasses to our students; previous speakers have included Roy Sandbach, a former senior Procter & Gamble executive. Free public debates also help you stay well-informed
- **Work on practical real-life projects** – opportunities include working on case reports for multinational and national companies, and taking part in our Spitalfields Market Challenge, becoming a market trader for two days to put your business acumen to the test
- **Join a friendly campus community** – as a small campus in a major world city, our London campus offers a friendly and supportive community to help you make the most of your lecturers and seminars. Our Students' Union helps you make the most of the UK's capital city
- **Get support from Newcastle University's Careers Service** – London students have full access to Newcastle University's award-winning Careers Service (see page 44 for more details), to give their career a head start

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International students may also be interested in...

For English language and university preparation courses at Newcastle University London, see page 56.

We also offer Accounting and Finance, Business Management and Marketing at Newcastle University. See page 57 for the list of subjects offered at the Newcastle campus.

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/london/courses/undergraduate**

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 or 7 in GCSE Mathematics and grade B or 6 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 56.

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 or 6 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 56.

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 or 6) 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 students: For information about university preparation courses see page 56.

Integrated Undergraduate Degrees for international students

Academic entry requirements: Completion of 12 years of schooling (or the local equivalent to meet the same standard) with good grades. For detailed information contact: **newcastlelondon@ncl.ac.uk**

English language requirements: IELTS 6.0 (with a minimum of 5.5 in all subskills) or equivalent. If you do not meet the minimum English language requirements you should apply for English for University Study (see page 56 for details). Please note that in addition to the UKVI IELTS, we can accept other English language qualifications. For more information contact: **newcastlelondon@ncl.ac.uk**

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

Professional Accreditation

Accounting and Finance: 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 London-based Accounting and Finance BSc Honours degree is professionally accredited by the Institute of Chartered Accountants in England and Wales (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 (CIMA).

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

Work Placement

You'll have the option to spend a year on a work placement. You'll receive support to apply for a suitable placement, including help to write your CV to send out to our wide range of industry contacts. You'll gain first-hand experience of working in the sector, putting your learning into practice and developing your professional expertise. Shorter placement options are also available. Contact **newcastlelondon@ncl.ac.uk** for further details.

Careers

Accounting and Finance: Our Accounting and Finance degrees provide you with the knowledge you need to pursue chartered accountant status should you wish to.

Business and Marketing: These degrees are designed for students who wish to pursue careers in international, multinational or global organisations and contexts.

Integrated Undergraduate Degrees for international students

Accounting and Finance with Foundation Year BSc Honours | N406 | 4 years |

International Business Management with Foundation Year BSc Honours | N124 | 4 years |

International Marketing and Management with Foundation Year BSc Honours | N5N5 | 4 years |

International students at Newcastle University London have the option of combining an International Foundation in Business with one of our three undergraduate degrees. This four-year programme (or five with a work placement) gives foundation students the convenient opportunity to complete their studies with us in a single programme.

The programme is designed to improve students' English language skills, increase their knowledge of academic theory and develop their research skills and understanding of key academic subjects before beginning undergraduate studies. With an integrated foundation year and undergraduate programme, you only need to apply for one visa for the duration of your studies with us.

For more information on the International Foundation in Business, contact **newcastlelondon@ncl.ac.uk**

Accounting and Finance (London campus)

BSc Honours | N402 | 3 years |

With Placement BSc Honours | N404 | 4 years |

This programme provides a firm foundation in accounting and finance. You'll learn a balance of academic theory and real-life problem-solving skills.

Stage 1: You are introduced to the subject area through core topics covering: introductory economics; introduction to financial accounting; introduction to management accounting and finance; and professional skills for accounting and finance. We balance this with a range of business disciplines, including an introduction to management and organisation, and an introduction to business law.

Stage 2: You begin to develop your skills in finance, financial accounting and management accounting through studying the following modules: corporate finance; financial control; intermediate financial accounting; managerial and business economics; auditing; and understanding company accounts.

Work placement (N404): Between Stages 2 and 3 you have the opportunity to spend a year on a work placement 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. While on placement you complete a personal learning record and reflective learning account.

Stage 3: You complete further compulsory modules covering: accounting, organisations and society; derivative markets; financial accounting; international financial management; management accounting; and taxation in accounting.

International Business Management (London campus)

BSc Honours | N122 | 3 years

With Placement BSc Honours | N123 | 4 years |

This degree is designed for students who wish to pursue careers in international, multinational or global organisations or contexts, and 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 and management; introduction to management and organisations; 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; and operations management.

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 a reflective learning report.

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

Native-English speakers and students with an IELTS score of 7.0 or higher have the option of studying a foreign language throughout their studies. Non-native English speakers with an IELTS score of 7.0 or lower will study business English and communication modules. For more information, contact **newcastlelondon@ncl.ac.uk**

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.

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; academic and professional skills; and quantitative methods for international business management.

Stage 2: You focus on: business enterprise (real business simulation over one year); global perspectives in managing people and organisations; global strategic marketing; marketing communications; operations management; and research methods for business and marketing.

Work placement (N5N3): Between Stages 2 and 3, students on the four-year degree with placement will have the option to spend a full academic year on a work placement with an approved organisation. While on placement you complete a reflective learning report and personal learning record.

Stage 3: You take modules in: advertising and integrated brand promotion; direct and digital marketing; electronic business; and management, creativity, design and innovation. You will also complete a dissertation or practical consultancy project.

Professional accreditation (see page 53)

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

London Campus (cont.)

English Language and University Preparation Courses

We offer a wide range of English language and academic preparation courses. If you are an international or EU student thinking about studying at Newcastle University London, we can help you prepare academically, gain the appropriate qualifications and meet the English language requirements of your chosen degree. For more information on Newcastle University London see page 52.

English language courses

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, this course provides intensive English language preparation for students to improve their English.

Start dates in June and July

University preparation courses

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 54)
- International Business Management (see page 55)
- International Marketing and Management (see page 55)

You will study the following modules: English for academic purposes; study skills and project; introduction to accounting; introduction to the study of business; and maths for business.

Start dates in July, September and January

The International Foundation in Business can also form part of our Integrated Undergraduate Degrees. See page 54 for more information.

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 55)
- International Marketing and Management (see page 55)

Start dates in July, September and January

How to apply

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

Visit: **www.ncl.ac.uk/london**
Apply online: **www.ncl.ac.uk/london/apply**
Enquiries: **newcastlelondon@ncl.ac.uk**

Subjects at Newcastle University

Not sure which subject your chosen degree comes under? See our A-Z Degree Index on pages 238–243 for a full list of all the degrees offered at Newcastle.

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QS STARS RATED FOR EXCELLENCE 2016 PLUS

QAA UK Quality Assured

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 on the teaching team and gain insight into industry with regular guest lecturers from leading accountancy firms and experts from a range of businesses. Graduate with an industry-recognised qualification and knowledge informed by academic research and practitioner insight.

- **Gain an industry-recognised degree** – our degrees are professionally accredited so employers will recognise the quality of your degree
- **Fast track your career** – our degrees are professionally accredited and offer a number of exemptions, putting you on the fast track to a career in accounting and finance
- **Work for PwC as part of your degree** – choose our Business Accounting and Finance BA Honours degree and benefit from built-in paid work placements at PwC
- **Boost your CV with a work placement** – spend a year on work placement; our dedicated Business School Placement Officer can help
- **Enjoy career planning support** – including our dedicated Careers Adviser and annual Career Development Week
- **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 52.

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Accounting and Finance at Newcastle University London	
Business Management	
Economics	
Marketing	
Mathematics and Statistics	

See page 244 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

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Accounting and Finance BA Honours*
Accounting and Finance with Placement BA Honours*

A levels: AAB excluding General Studies. See online for further information on preferred subjects. Minimum grade A or 7 in GCSE Mathematics and grade B or 6 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 51.

Accounting and Mathematics BSc Honours

A levels: AAB 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 or 7 and GCSE English grade B or 6 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 and English (Language and/or Literature) 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

We're ranked in the top 20 UK universities for Accounting and Finance in *The Times/Sunday Times University Guide 2017* and *The Complete University Guide 2017*. We also achieved a 93 per cent overall student satisfaction score in the National Student Survey 2016.

Professional Accreditation

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

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

- Association of Chartered Certified Accountants
- Association of International Accountants
- Chartered Institute of Public Finance and Accountancy
- Chartered Institute of Management Accountants
- Institute of Chartered Accountants in England and Wales (ICAEW)

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

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

DTUS Sponsorship

Our Accounting and Finance BA Honours 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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

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

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. The success of our graduates is reflected in the globally recognised list of companies within which a number have found employment, including: Ernst & Young; Deloitte; PwC; KPMG; Baker Tilly; Cummins Europe; National Audit Office; and Grant Thornton UK LLP.

Accounting and Finance

BA Honours | N400 | 3 years |

With Placement BA Honours | N401 | 4 years |

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

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

Stage 2: 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): You may choose to spend the year between Stages 2 and 3 on a 12-month placement working in a UK or overseas business, or studying abroad at one of our partner universities. 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.

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. These are linked to the research interests of our staff and include: taxation; behavioural finance; derivative markets; 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. Choose our career development module to boost your employability through work-related learning. You can also choose to complete a dissertation on a research topic that interests you.

Accounting and Mathematics

BSc Honours | NG41 | 3 years |

This degree allows you to combine accounting and financial management with core mathematical techniques. Many of the accountancy modules carry exemptions from accrediting bodies and are based on real case studies, preparing you for a professional career. You benefit from expert teaching and receive outstanding support to help you settle into your studies.

Stage 1: We introduce you to accounting and finance through modules in financial accounting, management accounting and business economics. You also study core topics in mathematics and statistics including: probability, algebra, differential equations and calculus. You develop your communication and study skills by working in small group tutorials.

Stage 2: In accounting, you develop skills in financial control, interpreting company accounts and financial accounting. Your core mathematical topics include vector calculus and statistical inference, as well as an introduction to computing and problem solving.

Work placement (optional): You may choose to spend the year between Stages 2 and 3 on a work placement in the UK or abroad. This will extend your degree to four years. See page 30.

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 |

This degree is delivered in collaboration with professional services firm PwC and the Institute of Chartered Accountants in England and Wales (ICAEW) and offers an innovative route into chartered accountancy. It combines the study of business, accounting and finance with guaranteed paid work placements at PwC, accelerating your progress to qualification as a chartered accountant.

Integrating academic study and business skills development with professional exams and over 200 days of paid work experience, you will get your career off to a flying start.

- 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

Work placements: This degree integrates over 200 days of qualifying technical work experience with PwC, divided across the second, third and fourth years. Your three work placements add up to approximately half of the approved technical work experience required by ICAEW in order to qualify as a chartered accountant.

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

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

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.

ICAEW PARTNER IN LEARNING

pwc

Agri-Business Management

The agri-food sector is one of the world's largest and most vital industries, responsible for the delivery of food and fibre to international markets. Our Agri-Business Management degree provides a multidisciplinary overview of this global industry and spans a range of disciplines, from agriculture and nutrition, to marketing and law. If you're interested in studying applied business, this degree will equip you with knowledge and practical skills to pursue a range of careers in the food and retail sectors. Our graduates work for grocery giants like Tesco and Sainsbury's as well as other household names like P&G and Unilever.

- **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, logistics 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** – through guest speakers and study visits to organisations representing the food supply chain, such as 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

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Food Business Management and Marketing BSc Honours	63
You may also be interested in...	
Agriculture	
Business Management	
Economics	
Environmental and Rural Studies	
Marketing	

See page 244 for a full list of degrees by subject.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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.

Athena SWAN Award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

Work placement (see page 30) **Study abroad** (see page 32)

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Agri-Business Management BSc Honours

A levels: AAB–ABB including General Studies. GCSE Mathematics (minimum grade B or 6) 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.

Careers

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. The specialist knowledge and skills gained during this degree also prepare you for a diverse range of popular career destinations in the food and retailing sector.

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.

Other graduates have progressed to careers in finance, investment banking, human resources and management in businesses such as consultancy, hospitality and logistics. Some choose to work in marketing and communications, using the skills they have developed through business simulations and marketing modules during the degree.

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.

Food Business Management and Marketing

BSc Honours | ND61 | 3 years |

This new degree was approved as the Prospectus went to print. It focuses on the production and consumption of food products and on the behaviour of people as consumers. For full details, including entrance requirements, go online **www.ncl.ac.uk/undergraduate**

Agri-Business Management

BSc Honours | N280 | 3 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, covering topics such as: farm management; managerial economics; agricultural marketing; livestock production, and UK arable crops. You may also choose modules from elsewhere in the University.

Work placement (optional): You may apply to spend the year between Stages 2 and 3 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. This extends your degree by a year.

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 such as farm management and food production systems or, if you are more interested in the management side of the agri-food chain, there is a choice of modules relevant to business management and consumer demand.

An independent research project will account for a quarter of your time in your final year. Recent projects include: the implications of agri-tourism for farm diversification; 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 equip you with 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 comprehensive subject expertise, including plant 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 to agricultural research institutes
- **Boost your CV with a work placement** – apply to take an optional work placement year to gain professional experience in the sector
- **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

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Agriculture with Animal Production Science BSc Honours	66
Agriculture with Farm Business Management BSc Honours	66
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 244 for a full list of degrees by subject.

League Table Ranking

We are ranked in the top 5 UK universities for Agriculture and Forestry in *The Complete University Guide 2017*. Agriculture also ranks in the top 100 universities in the world in the *QS World University Rankings by Subject 2016*.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Find out more on pages 30–31.

Athena SWAN Award

In 2014, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

Work placement (see page 30)

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All Agriculture BSc Honours

A levels: ABB–BBB excluding General Studies. A science A level is preferred. For Biology, Chemistry and Physics A levels, a pass in the practical element is required. GCSE Biology and Chemistry (or Dual Award Science) at grade C or 4 required if not offered at A or AS level.

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 50.

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.

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 pursue careers 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, Strutt & Parker, Agrovista, GrowHow, and Syngenta. Many of these employ our graduates in senior management positions and specifically target Newcastle University agriculture students during recruitment campaigns.

Agriculture

BSc Honours | D400 | 3 years |

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

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

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

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

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

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

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 65).

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

> 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.

Harry, Agriculture with Farm Business Management BSc Honours

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 65).

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 68) 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 65).

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.

Work placement (see page 30)

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 reflect 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, and input from professionals in the animal science industry. 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
- **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 a particular topic in animal science
- **Gain a high level of scientific knowledge** – your degree can be a springboard to a career in the animal sector, for example, to work as an animal nutritionist or welfare assessor

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You may also be interested in...	
Agriculture	
Biology and Zoology	
Environmental and Rural Studies	
Marine Sciences	
Psychology	

See page 244 for a full list of degrees by subject.

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.

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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 and Psychology. General Studies excluded. Chemistry is preferred at A/AS level but not essential. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Mathematics (minimum grade B or 6) required if not offered at A/AS level.

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 programme may be offered to students who have completed a Newcastle University-accredited foundation programme with Northumberland College – see page 50.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Find out more on pages 30–31.

Applied Plant Science

BSc Honours | C211 | 3 years |

This new degree was approved as the Prospectus went to print. It focuses on how plant species interact, both physiologically and ecologically, with each other as well as with animal species and their environment. For full details, including entrance requirements, go online **www.ncl.ac.uk/undergraduate**

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, the uses of domesticated animals in society, and animals 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 on animals from the latest scientific studies being undertaken around the world.

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

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

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

Work placement (see page 30)

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 archeological 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
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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Archaeology BA Honours	71
Ancient History and Archaeology BA Honours	71
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You may also be interested in...	
Classics and Ancient History	
Combined Honours (Archaeology, plus up to two other subjects)	
History	

See page 244 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

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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 2016*, ranking us 3rd in the UK. We also rank in the top 10 in the UK for Archaeology in *The Times/Sunday Times Good University Guide 2017* and *The Complete University Guide 2017*.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30-31.

Study Abroad

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

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 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

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

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

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, or in museums or 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.

Work placement (see page 30) **Study abroad** (see page 32)

Archaeology

BA Honours | V400 | 3 years |

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

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

Stages 2 and 3: We extend the geographical range of your studies to Europe and beyond, and offer modules from prehistory up to the present day. Your wide choice of optional modules includes topics such as 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 essential theories, methods and practical skills used in archaeology. At the end of Stage 1 you complete at least two weeks' excavation fieldwork, from a choice of projects in the UK or abroad. You study Greek and Roman art and history, and can choose from a range of optional topics such as Prehistoric Britain and Greek and Latin languages.

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

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

History and Archaeology

BA Honours | VV41 | 3 years |

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

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

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

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

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

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

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
- **Experience architecture at home and abroad** – choose UK and European field trips to visit key buildings and experience architecture in different environments
- **Learn from the professionals** – benefit from tutors from professional practice and lectures from current practitioners
- **Benefit from our depth 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
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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Architecture and Urban Planning BA Honours	74
Also available...	
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Master of Architecture MArch	74
Diploma in Architectural Practice and Management	74
You may also be interested in...	
Civil Engineering	
Fine Art	
Geography	
Urban Planning	

See page 244 for a full list of degrees by subject.

League Table Ranking

Newcastle is ranked in the top 10 in the UK for Architecture in *The Times/Sunday Times University Guide 2017* and *The Complete University Guide 2017*. Architecture at Newcastle ranks in the top 100 universities in the world in the *QS World University Rankings by Subject 2016*.

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).

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Find out more on pages 30–31.

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Architecture BA Honours

A levels: AAA. GCSE grade B or 6 in Mathematics and English required if not taken at a higher level. All candidates will be required to submit a portfolio for review as part of the selection process. Candidates with outstanding portfolios may be considered for lower offers.

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

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.

Careers

Our Architecture BA Honours degree is your first step towards qualification as a professional architect (see page 74). Our Architecture and Urban Planning BA Honours degree equips you to follow a number of career paths in sectors such as 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 various professional fields such as: teaching; law; 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 include architectural theory, history and technology. These 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 as you undertake a series of progressively more 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.

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 your 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.

> 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 – I am really happy to be here for the rest of my studies.
>
> **Sun,** Architecture BA Honours

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 encourages 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 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 your 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.

Work placement (see page 30) **Study abroad** (see page 32)

Biology and Zoology

Biology and Zoology at Newcastle deal with all forms of life, ranging in scale from micro-organisms to mammals, and from biomolecules to the biosphere. 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 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 conservation research module in Thailand (C100, C103, C182, C183, C300 and C301)
- **Gain laboratory experience** – learn valuable skills in the application of molecular techniques (C100, C103, C1C7 and C7C1)
- **Boost your employability** – gain academic credit for work in biology off campus
- **Join a supportive subject area** – student mentors, small group teaching and our Biology Society will help you settle in and make friends

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Marine Sciences	
Nutrition and Food	
Psychology	

See page 244 for a full list of degrees by subject.

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All Biology BSc Honours degrees, pages 77–79, 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 or 6 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 77–79

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 or 6 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: AAA–ABB including Biology (at grade A) and preferably Chemistry, but excluding General Studies. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Mathematics grade B or 6 required if not offered at A or AS level.

International Baccalaureate: A minimum of 35 points with three subjects at Higher Level grade 6 or above. At least two sciences at Higher Level are preferred. Mathematics or Mathematical Studies to be offered at Standard Level grade 5 if not offered at Higher Level. At least one third of all subjects taken must be science/mathematics.

League Table Ranking

Biological Sciences at Newcastle ranks in the top 150 universities in the world in the *QS World University Rankings by Subject 2016*.

Professional Accreditation

Our Biology and Psychology BSc Honours degree is accredited by the British Psychological Society (BPS).

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Find out more on pages 30–31.

Study Abroad

UK and EU students have the opportunity to take part in a study abroad exchange between Stages 2 and 3.

Athena SWAN Award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

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 the Biology and Psychology degree). 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 the Biology and Zoology degrees is possible until the end of Stage 1, if you find that your interests change during this time.

Work placement (see page 30) **Study abroad** (see page 32)

Biology

BSc Honours | C100 | 3 years |

MBiol Honours | C103 | 4 years |

These degrees provide our broadest range of topics from across the full spectrum of biology, dealing with all forms of life, at all scales from 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 tutorials with your personal tutor.

Stages 2 and 3: At Stage 2, you continue to study a wide range of organisms through topics including: biodiversity, ecology and conservation; molecular biology and development; vertebrate biology; animal physiology; plant biology; and microbiology. Optional modules are also available in more specialised topics, and there is the opportunity to do a short vocational work placement.

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

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

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

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

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

Biology (Cellular and Molecular Biology)

BSc Honours | C1C7 | 3 years |

MBiol Honours | C7C1 | 4 years |

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

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

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

Continued overleaf.

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

Stage 3: You study advanced specialist topics, many of which are directly linked to our research expertise, such as: advanced cell biology; genomics; biotechnology; photosynthesis; plant diseases; bioexploration for active compounds; and molecular evolution and systematics.

You spend around a third of your time on your own individual project. This can be based on laboratory research; a detailed review of research publications on a special topic; or a project to enhance the public understanding of science. To enhance your skill set you will also have the opportunity to select a module that focuses on development of ideas for a business.

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

Biology (Ecology and Conservation)

BSc Honours | C182 | 3 years |

MBiol Honours | C183 | 4 years |

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

Stage 1: You study a common curriculum, developing a firm foundation in the subject and discovering where your interests lie (see Biology BSc Honours, page 77).

Stages 2 and 3: In Stage 2, you focus on the study of how organisms interact with one another and with the wider environment, through topics including: biodiversity; ecology and conservation; population genetics; plant biology; pollution science; UK wildlife; and vertebrate biology. Optional modules are also available in more specialised topics, and there is the opportunity to do a short vocational work placement.

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

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

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

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

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

> "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 and Psychology

BSc Honours | CC18 | 3 years |

The degree allows you to combine the study of animal, plant and human biology with explorations of human and animal behaviour. You will enjoy a high level of laboratory experience and fieldwork, such as taking part in experiments, running your own and analysing the results.

It is accredited by the British Psychological Society (BPS). This gives you the Graduate Basis for Chartered Membership (providing you achieve the minimum standard of a lower second-class Honours). Having Graduate Basis for Chartered Membership means you can join the BPS and go on to further training or practice in psychology.

Stage 1: We introduce you to the key disciplines underpinning biology in areas such as: biochemistry; genetics; ecology; and evolution. In psychology, we cover topics such as: cognitive psychology; developmental and social psychology; personality and abnormal psychology; sensation and perception; and instinct, learning and motivation. You develop your communication and study skills by working in small group tutorials on a guided research investigation in psychology.

Stages 2 and 3: You continue to develop your knowledge in core areas of biology such as vertebrate biology and animal behaviour. You also study core psychology topics in more depth, including visual perception, social psychology and cognition.

At Stage 3 you have increasing freedom to tailor your study to areas that interest you. In biology, you choose from topics such as: genomics; evolution; vertebrate biology; animal ecophysiology; and animal behaviour. In psychology, you can choose from a wide range of optional modules such as: personality disorders; diagnosis, assessment and treatment of eating disorders; consumer psychology; and co-operation.

Zoology

BSc Honours | C300 | 3 years |

MBiol Honours | C301 | 4 years |

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

Stage 1: You study a common curriculum, developing a firm foundation in the subject, putting animals in context and discovering where your interests lie (see Biology BSc Honours, page 77).

Stages 2 and 3: At Stage 2, your study of animals becomes more specialised, with topics such as: animal behaviour; animal physiology; entomology; biodiversity, ecology and conservation; and vertebrate biology. Optional modules are also available in more specialised topics, and there is the opportunity to do a short vocational work placement.

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

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

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

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

Stage 4 (MBiol only): You build on the knowledge and skills you developed in the first three Stages, working alongside our research-active staff to explore advanced topics in zoology. You undertake a significant research project working with an active research group. You also have the opportunity to choose from specialist topics such as: biological study of behaviour; global and invasive species; animal welfare science; 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. Research fields include: 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
- **Enhance your employability** – take a professional placement year, now available to all students on our degree programmes. The majority of our placements are funded
- **Boost your employability further** – with our innovative life science specific work experience opportunities such as paid laboratory assistant posts in our research labs, vacation studentships and international exchanges
- **Learn in specialist teaching and research facilities** – including four specialist practical laboratories, an extensive medical sciences library and dedicated computer clusters
- **Apply to transfer to Medicine or Dentistry** – you'll have the opportunity to apply to transfer to our Medicine or Dentistry degrees after the first year (on a competitive basis)

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Dentistry	
Medicine	
Nutrition and Food	
Psychology	

See page 244 for a full list of degrees by subject.

League Table Ranking

We are a National Centre of Excellence in biomedical research. Biomedical and Biomolecular Sciences at Newcastle is highly regarded, achieving between 96 and 100 per cent for overall student satisfaction across all of our subjects in the *National Student Survey 2016*. We rank in the top 10 in the UK for Biomedical Sciences in *The Times/Sunday Times Good University Guide 2017* (in the Subjects Allied to Medicine category).

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All Biomedical and Biomolecular Sciences degrees, pages 82–84

A levels: AAA-AAB including Biology or Chemistry, plus at least one from: Mathematics or Further Mathematics; Physics; Psychology; Biology; or Chemistry. Candidates offering Biology without a second science A level will be considered if they are offering Chemistry at AS level (minimum grade C).

For Biology, Chemistry and Physics A levels, we require a pass in the practical element. General Studies, Use of Mathematics, World Development, Communication and Culture and Critical Thinking not accepted. GCSE Chemistry and Biology (minimum grade A or 7) and GCSE Mathematics and English Language (minimum grade B or 6) required if not offered at A or AS level.

International Baccalaureate: 34-35 points with Biology or Chemistry and another science at Higher Level grade 5 or above. We regard Mathematics, Physics, Psychology, Biology and Chemistry as acceptable science subjects. Standard Level Chemistry and Biology required at grade 5 and Standard Level Mathematics or Mathematical Studies and English required at grade 4 if not offered at Higher Level.

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
- 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 187).

Work Experience

We encourage you to spend at least four weeks of your summer vacation after your second year on work experience. Opportunities include:

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

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

Study Abroad

UK and EU students can 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.

Athena SWAN Award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

Careers

There is a great demand for biomedical and biomolecular science graduates 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. Each year a number of our graduates use our degrees as a route for graduate entry into medicine, dentistry and PGCEs.

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.

If you would like to read more about the progression of our students, visit **www.ncl.ac.uk/biomed/about/alumni** for some profiles of our graduates.

What You Will Study

We have 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. 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.

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

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

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

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

Integrated Masters' (MSci) degrees: Our Integrated Masters' (MSci) degrees are designed to give students who are interested in a career in research more in-depth training and experience within the laboratory environment. All of these degrees extend your programme to four years. During the third year you will undertake the Experimental Design and the Process of Research module, before completing the degree with a year-long research project in your final (fourth) year.

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 right up to humans. You'll learn about the molecular basis of the structure and processes of life. Biochemistry is at the core of many areas of biology and is responsible for a large number of scientific breakthroughs in medicine and biotechnology. 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: DNA replication, recombination and repair; gene expression; chronic disease; cancer; and the importance of application of biochemistry in real-world problems such as biofuels, nano-circuitry and bio-sensing.

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

Work placement (see page 30) **Study abroad** (see page 32)

Biomedical Genetics

BSc Honours | B901 | 3 years |

Integrated Master's MSci Honours
B903 | 4 years |

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

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

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

Biomedical Sciences

BSc Honours | B940 | 3 years |

Integrated Master's MSci Honours
B900 | 4 years |

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

You'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 our understanding of diseases such as cancer, Alzheimer's disease and HIV for example, which is essential for the development of new and improved treatments, as well as for preventative approaches.

You will learn about: human anatomy; the nervous system and respiratory diseases; and clinical immunology and viral pathogens. You will also be able to choose modules offered by our research institutes, including: chronic and nutrition-related disease; the genetics of common diseases; cancer biology and therapy; diseases of the human nervous system; the biology of ageing; the immunology of health and disease; and medical biotechnology.

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 leukemia; and modelling liver disease using precision-cut slices.

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.

"I particularly enjoy the variety available in my course. At the end of first year, we were given the opportunity to specialise in various courses within biomedicine such as physiology, genetics or even biochemistry. I chose to remain in general biomedicine and have enjoyed the immense variety of modules we learn."

Nahosi
Biomedical Sciences BSc Honours

Pharmacology

BSc Honours | B210 | 3 years |

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

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

The degree emphasises the development of core practical skills which are in demand by employers. Practical sessions provide you with hands-on experience of key experimental techniques commonly used in the pharmaceutical industry and research.

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

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

> When I graduate I hope I can work in a hospital doing research – my course is very hands-on so I get to learn lots of practical skills which is important for my future career.

Physiological Sciences

BSc Honours | B100 | 3 years |

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

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

We place particular significance on introducing you to the most recent and important advances in the field of physiology from our research-active teaching staff.

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

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

Lian
Pharmacology BSc Honours

Work placement (see page 30) **Study abroad** (see page 32)

Business Management

Business management degrees at Newcastle offer significant real-world business experience and outstanding work experience opportunities with globally recognised companies. Combined with our academically rigorous curriculum, dedicated careers support and business engagement activities, these degrees provide you with unrivalled opportunities to develop knowledge, expertise and contacts that will enable you to excel in your future career.

- **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
- **Engage with real-world business challenges** – engage with real-world issues and organisations and develop vital management skills
- **Boost your CV** – build a year-long work placement into your degree with the support of our dedicated Placements Officer, or undertake a management consultancy project
- **Enrich your passion for languages** – with three routes to choose from in our International Business Management BSc Honours degree

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 52.

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Accounting and Finance	
Agri-Business Management	
Business Management at Newcastle University London	
Combined Honours (Business, plus up to two other subjects)	
Economics and Business Management	
Marketing	
Mathematics with Management	
Modern Languages and Business Studies	

See page 244 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

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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 or 6) 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*

A levels: AAB. Any subject combinations accepted excluding General Studies. Minimum grade B or 6 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 51.

*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) and the Chartered Institute of Personnel and Development (CIPD).

Graduates are guaranteed membership of the Chartered Management Institute and subject to module choice will be eligible for associate-level membership of the Chartered Institute of Personnel and Development (CIPD).

Work Placement

You can apply to spend a year on an optional work placement between Stages 2 and 3, gaining valuable professional experience.

You'll be supported by our dedicated Placement Officer, who works closely with the University's Careers Service to help you to make the most of your skills and to find the best opportunities.

Current 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'Oreal
- 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.

Study Abroad

You can study at one of our partner universities in Europe between Stages 2 and 3, through the ERASMUS+ scheme. Explore and choose from experiences in Spain, France, the Netherlands, Germany, Poland and Scandinavia.

DTUS Sponsorship

Our Business Management BA Honours 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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

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: Brewin Dolphin; Wm Morrison Supermarkets; Michael Page International Recruitment; Barclays Bank; Ernst & Young; Mercedes-Benz UK; Vodafone UK; Amazon; KPMG, and Benfield Motor Group.

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 years |

Our professionally accredited Business Management BA Honours degree offers you the opportunity to develop a strong understanding of the strategic and operational context of businesses.

Your knowledge is contextualised, and your employability enhanced, through our strong emphasis on gaining practical, real-world business experience, via 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 management 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 modern business 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 year (optional): You may choose to spend the year between Stages 2 and 3 on a 12-month placement working in a UK or overseas business or studying abroad at one of our partner universities (see opposite). This extends your degree by a year.

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; corporate social responsibility and ethics; case studies in accounting and finance; and management and organisation in popular culture. You also have the flexibility (with approval from the Degree Programme Director) to replace one of the optional topics with advanced business Spanish or a career development module.

International Business Management

BSc Honours | N121 | 3 years

With Placement BSc Honours | N120 | 4 years |

This degree is designed for students who wish to pursue careers in international, multinational or global organisations and contexts. This degree will prepare you for the diverse and challenging world of international business.

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.

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

- advanced business English route (for non-native speakers), with an optional study abroad or work placement year
- beginners' language route in Chinese, French, German or Spanish, with an optional study abroad or work placement year
- advanced language route in Chinese, French, German or Spanish, with a compulsory year abroad in an international partner university

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 year/study abroad year:
This is compulsory for students taking advanced Chinese, 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 86 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 in intercultural settings.

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 plus 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 page 90)
- **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 91)
- **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

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You may also be interested in...	
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Civil Engineering	
Electrical and Electronic Engineering	
Foundation Year	
Marine Technology	
Mechanical Engineering	

See page 244 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

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All Chemical Engineering MEng degrees, pages 92–93

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 or 6 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.

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 or 6 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 49 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 49 for details.

League Table Ranking

At Newcastle you'll join a subject area with a long-standing reputation for teaching quality and student support:

- top 10 in the UK in *The Times/Sunday Times Good University Guide 2017* and *The Complete University Guide 2017*
- 91 per cent overall student satisfaction score, ranking us 7th in the UK in the *National Student Survey 2016*
- Chemical Engineering at Newcastle also ranks in the top 200 universities in the world in the *QS World University Rankings by Subject 2016*

Professional Accreditation

All our degrees are professionally accredited by the Institution of Chemical Engineers (IChemE) and the Institute of Measurement and Control. IChemE accreditation means employers will recognise the quality of your degree because it meets high professional standards.

It also means both our BEng and MEng degrees provide a pathway to becoming a Chartered Engineer (CEng). This is one of the most recognised international engineering qualifications.

Our four-year Master of Engineering (MEng) degrees are a direct route to becoming chartered. You don't need to study any more qualifications after your degree to work towards chartered status.

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

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

Athena SWAN Award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

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 93) you can take an integrated, 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.

If your chosen degree doesn't have an integrated work placement year, you can still apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

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. Because our degrees are professionally accredited, we will need to find an appropriate academic programme in a 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.

Continued overleaf.

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

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

Transfer between BEng and MEng degrees is possible up to the end of Stage 3 should your interests change as your knowledge develops. However, transfers are subject to minimum grade requirements. To stay on an MEng degree or transfer onto one, 60 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.

> 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!

Angella
Chemical Engineering BEng Honours

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, on page 91).

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

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

Chemical Engineering with Bioprocess Engineering

MEng Honours | H831 | 4 years |

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

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

You receive a thorough introduction to core chemical engineering skills and knowledge for the first three years of your degree (see What You Will Study, page 91).

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 91).

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

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

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

Chemical Engineering with Process Control

MEng Honours | H830 | 4 years |

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

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

You receive a thorough introduction to core chemical engineering skills and knowledge for the first three years of your degree (see What You Will Study, page 91).

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. This covers 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 91).

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 scientific career. 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. 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, including £3.9 million chemistry research laboratories, modern 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
- **Find out where your interests lie** – the first two years of our degrees are broadly the same, providing you with a solid foundation in chemistry and allowing you to explore the subject and find out where your interests lie. Transfer is possible at any Stage (see What You Will Study, opposite)
- **Get kitted out for your studies** – receive a starter pack worth about £200, including textbooks, calculator, lab coat, goggles, a molecular modelling kit and access to a world-leading scientific drawing programme
- **Gain research experience** – through a summer placement opportunity in Chemistry
- **Hear speakers from industry** – enjoy a weekly seminar programme with talks from academic and industrial speakers
- **Be rewarded** – we offer prizes at each Stage to reward excellence in academic performance

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Chemical Engineering	
Dentistry	
Medicine	

See page 244 for a full list of degrees by subject.

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All Chemistry and Medicinal Chemistry BSc Honours degrees, page 97

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 or 6 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 97

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 or 6 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 94 per cent in the *National Student Survey 2016*.

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). It also leads, on 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.

Athena SWAN award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

What You Will Study

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

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

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

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

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

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

Continued overleaf.

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

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

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.

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

MChem Industrial Training Years count directly towards your final degree mark. 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.

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.

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; sport; art and design; 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.

During your second year, the School of Chemistry hosts a Professional Awareness Day, inviting a broad mix of business representatives to the event. This provides you with further knowledge to make educated career decisions when you leave higher education and go into the world of work. The School also organises one-to-one meetings between final-year students and academics to discuss your professional future.

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 95.

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

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

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

The Industrial Training Year option provides you with the training and work experience to make you more competitive in the job market after graduation. See Industrial Training Year, opposite.

The Study Abroad option gives you the opportunity to spend your third year studying chemistry at one of our partner universities in Europe, North America or Asia. See Study Abroad, opposite.

> I enjoy the large amount of time we get to spend in the laboratory. You can tell this is a Russell Group university by the focus that is put on scientific research and experiments. I've enjoyed almost all of my modules, especially the ones where I can relate what we are doing in labs to the theory we were learning in lectures.

Helen, Chemistry BSc Honours

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 95.

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

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

The Industrial Training Year option provides you with the training and work experience to make you more competitive in the job market after graduation. See Industrial Training Year, opposite.

The Study Abroad option gives you the opportunity to spend your third year studying chemistry at one of our partner universities in Europe, North America or Asia. See Study Abroad, opposite.

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

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 structures and transportation, water supply and sanitation. 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 spend a year in industry, study abroad and even complete a real engineering project overseas.

- **Gain an industry-recognised qualification** – our professionally accredited degrees meet high industry standards and put you on the pathway to chartered engineer status, one of the world's most recognised qualifications
- **Study a design-intensive degree** – you'll complete large sustainable engineering design projects in Stages 1, 2 and 3
- **Include a year in industry** – gaining professional experience during your studies provides you with an opportunity to apply your knowledge, gain insight, network within your chosen sector and potentially secure a graduate job
- **Enjoy close links with industry** – including site visits, guest lectures, placement and job opportunities, an industrial advisory panel that ensures our degrees are industrially relevant, and our ACCESS event where you meet and network with our industrial partners
- **Learn in state-of-the-art laboratory facilities** – independently rated 'excellent' by professional accreditors, for structures, geotechnics, surveying, hydraulics, environmental engineering, and transport
- **Enjoy flexibility to pursue your 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

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See page 244 for a full list of degrees by subject.

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

BEng degrees, pages 101–102

A levels: AAB including Mathematics but excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Physics or Dual Award Science (minimum grade B or 6) required if not offered at A or AS level.

International Baccalaureate: 35 points with Mathematics at Higher Level grade 5 or above. Physics required at Standard Level grade 5 or above if not offered at Higher Level.

MEng degrees, pages 101–102

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 or 6) 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 49 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 49 for details.

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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

League Table Ranking

Civil and Structural Engineering at Newcastle is ranked:

- Top 10 in the UK in *The Times/Sunday Times Good University Guide 2017*
- 2nd in the UK for research power *(Research Fortnight)*
- 90 per cent overall student satisfaction *(National Student Survey 2016)*
- World top 150 for Civil and Structural Engineering *(QS World University Rankings by Subject 2016)*

Athena Swan Award

In 2014, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

Year in Industry

Between Stages 2 and 3, spend a year on a paid industrial placement, working on real-life civil engineering projects.

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

You'll also develop valuable workplace skills such as teamwork, communication and project management. If you impress your host company, it could even result in a job offer on graduation.

Securing a placement will be your first step in the transition from study to employment and there is support to help you identify opportunities, write your CV and make applications.

There is a dedicated tutor who is your help and support during this year away from campus.

Study Abroad

UK and EU students on certain degrees can broaden their academic experience by taking part in an optional study abroad exchange as a fully accredited part of their degree – look for the symbol. We have partners in a range of countries including Hong Kong, Sweden, Singapore and the USA. Our study abroad options are taught in English so you don't need to know a second language.

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

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
- the Institute of Highway Engineers

The JBM works with universities to ensure their degree programmes develop professional engineers who will continue to provide a global contribution to sustainable, economic growth and ethical standards. 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 in 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. We host many of the sector's leading employers and professional bodies at our dedicated Civil Engineering professional development fair for second-year students.

As well as civil engineering careers, graduates have gone to work in the mining, nuclear, oil and gas, and renewable energy sectors. 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

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

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

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

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

MEng Honours | H290 | 4 years |

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

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

Year in Industry: Between Stages 2 and 3, students on our Year in Industry degrees undertake a professional placement in the civil engineering sector, see page 99.

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

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

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

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

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

Civil and Structural Engineering

BEng Honours | H210 | 3 years |

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

MEng Honours | H242 | 4 years |

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

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

Stages 1 and 2: You study a broad range of modules from across all five of our study themes (see What You Will Study, page 100). These give you a firm foundation in core civil engineering skills before you specialise in later Stages. Our ACCESS event in Stage 2 will help you prepare for making course and career decisions.

Year in Industry: Between Stages 2 and 3, students on our Year in Industry degrees undertake a professional placement in the civil engineering sector, see page 99.

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

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

Civil and Surveying Engineering

BEng Honours | H202 | 3 years |

With Year in Industry BEng Honours | H208 | 4 years |

MEng Honours | H292 | 4 years |

With Year in Industry MEng Honours | H298 | 5 years |

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

Stages 1 and 2: You study modules from the fundamental civil engineering themes of infrastructure, modelling and informatics, and surveying (see What You Will Study, page 100). Specialist modules from the surveying theme include a residential field course mapping a Lake District valley, digital surveying techniques, and 3D laser scanning. Our ACCESS event in Stage 2 will help you prepare for making course and career decisions.

Year in Industry: Between Stages 2 and 3, students on our Year in Industry degrees undertake a professional placement in the civil engineering sector, see page 99.

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

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

Classics and Ancient History

Studying Classics and Ancient History at Newcastle allows you to explore the worlds of ancient Greece and Rome from a variety of perspectives. You will also uncover their legacy in our culture and their impact on the way we think today. You'll 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.

- **Learn from leading experts** – we're one of the top UK universities for classics and ancient history, with research expertise in: Greek and Roman poetry and history writing; ancient speeches, music, philosophy and science; Minoan Crete; Roman Republican and Imperial history; classical influence in European literature and art; and encounters between the Greek world and neighbouring cultures such as Egypt and Persia
- **Develop professional research skills** – develop and showcase research skills that employers value through the Ancient History portfolio project and dissertation modules
- **Learn Greek or Latin** – learn Greek or Latin from beginners' or advanced level with our nationally acclaimed 'Language in Action' classes. Quickly get to grips with classical literature in the original language, thanks to small class sizes and innovative teaching
- **See the classical world come to life** – enjoy extracurricular field trips that take advantage of the North East's rich history, including the nearby World Heritage Site of Hadrian's Wall, and the classically inspired Belsay and Wallington Halls
- **Access world-class treasures in the University museum** – the Great North Museum includes spectacular objects from Ancient Greece and Rome and a resource-rich specialist library. We also have our own dedicated classical library
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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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 244 for a full list of degrees by subject.

> I would definitely recommend my course at Newcastle as the wide range of modules and the teaching staff make it a most impressive course – I think this is what a student needs when they come to university.
>
> **Ashley,** Classical Studies BA Honours

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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.

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

League Table Ranking

We rank in the top 10 UK universities for Classics and Ancient History in *The Times/Sunday Times University Guide 2017* and *The Complete University Guide 2017*.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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. Other graduates pursue careers in areas as varied as politics, local government, finance, tourism and marketing.

Ancient History

BA Honours | V110 | 3 years |

This degree in Greek and Roman history focuses principally on the period from 776 BC to AD 480. We place a strong emphasis on students engaging with different surviving forms of ancient evidence, including literary texts, inscriptions, and visual and archaeological material. You can combine this with the study of Greek or Latin language if you wish, even if you have no previous experience.

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

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

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

Classical Studies

BA Honours | Q810 | 3 years |

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

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

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

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

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

Classical Studies and English

BA Honours | QQ83 | 3 years |

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

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

Stages 2 and 3: Our specially designed independent study modules are central to the later Stages of your degree. You continue to link the two sides of your degree by exploring aspects of classical influence in English literature. In Stage 3 this takes the form of an extended project on a topic reflecting your individual interests. Recent topics include 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, as well as a variety of aspects of the classical world. Both Latin and Greek can be studied either from beginners' or advanced level to match your previous experience.

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

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

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

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

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

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

Work placement (see page 30) **Study abroad** (see page 32)

Combined Honours

If you enjoy the challenge of studying and mastering more than one subject, 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** – select 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 employability** – apply to take a year-long work placement, gaining valuable workplace experience to boost your CV
- **Experiential learning** – take specialist career and graduate development modules, which recognise and reward you for extracurricular roles and experience and/or a wide range of community engagement or independent projects – a real boost to your CV
- **Develop interdisciplinary skills** – we'll introduce you to interdisciplinary thinking and you can combine your subjects through projects that span your subject areas
- **Enjoy a strong sense of community** – the Combined Honours Centre includes a student-run Combined Honours Society and a student common room for study and social activities

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See page 244 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 commununity
- offering a diverse range of extracurricular opportunities
- interdisciplinarity – synthesising multiple perspectives

"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."

Jesslyn
Combined Honours BA Honours

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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, opposite.

International Baccalaureate: A minimum of 34 points including at least two subjects at Higher Level grade 6 or above.

League Table Ranking

Combined Honours at Newcastle achieved an impressive 99 per cent overall student satisfaction score in the *National Student Survey 2016*, ranking us 1st in the UK.

Subject Combinations

A few of the subject combinations possible through Combined Honours may already exist – see our A–Z Degree Index on page 238. 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.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

Study Abroad

You have the opportunity to take part in a study abroad exchange in Europe through the Erasmus scheme, or further afield through our non-EU exchange scheme.

Studying a Language

Language subjects available through Combined Honours provide modules both for beginners and those with previous language experience (Portuguese available from beginner's level only).

If you study a language beyond Stage 1, you spend a compulsory year abroad between Stages 2 and 3 to develop and practise your language skills. This extends your degree to four years.

You can study a maximum of two language subjects together in Stage 1. Only one of these languages can be at beginners' level.

It is not normally possible to study Chinese and Japanese together.

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.

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 below).

In Stage 1, you study two or three subjects in equal proportions.

From Stage 2 onwards, you can choose how you want to combine your subjects:

- study three subjects in equal proportion
- study two subjects in equal proportion (the joint route)
- study two subjects, spending two thirds of your time on one subject and one third on the other (the major/minor route)

In your final year, you have the option to undertake a final-year project that focuses on one of your subjects or spans more than one.

Your degree certificate will reference the subjects you studied in Stages 2 and 3, allowing employers to identify your areas of expertise, for example BA Combined Honours in English Literature and French.

> In terms of Combined Honours, I would recommend the freedom it allows, the solid support network in terms of the staff and their unerring support no matter what happens. I have been amazed at the flexibility of the programme and by the staff in terms of module choice, subject change and pastoral support.

Ben, Combined Honours BA Honours

Subjects Available

Archaeology: Spans prehistoric, Roman and early medieval archaeology, with the opportunity to undertake practical fieldwork.

Business: Covers modules in accounting, economics, marketing and management, delivered by Newcastle University Business School. Grade B in Mathematics and English at GCSE (or equivalent) normally required.

Chinese: Concentrates on the practical study of modern standard Chinese (Mandarin), including study at a university in China between Stages 2 and 3. The emphasis is on communication skills and no prior knowledge of Chinese is assumed. See Studying a Language opposite.

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

Education: Engage with important questions such as: what is meant by 'education' and what is its purpose? What role is played by sociocultural factors? What might the future of teaching and learning look like?

English Linguistic Studies: Provides an introduction to language study with particular reference to the structure and history of the English language.

English Literature: Offers a choice across a wide range of periods, genres and authors from post-Renaissance English literature onwards. Grade A in English Literature at A level (or equivalent) normally required.

Film Studies/Film Practices: Offers an introduction to American, British and European film, involving some consideration of the history and theory of the medium. Available as a joint or minor subject only (not a major).

French: Involves the practical study of the French language plus a selection of modules from one or more of the following areas: French literature; modern history; film; and linguistics. Available at two levels – Level A for beginners (no previous experience required) or Level B for those with grade B in A level French (or equivalent). See Studying a Language 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 on page 108.

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 on page 108.

Media and Communication: Explore mass media, communication theory and practice, and culture. Study how information is created, managed, promoted, circulated and consumed across contemporary society in a range of cultural industries.

> I 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

Music: Covers a wide range of modules including: the history of music; compositional techniques; analysis; acoustics; and electro-acoustic music. A level Music (or equivalent) preferred. Students are also strongly advised to gain competence in music theory to at least Associated Board Grade V level before starting Music within Combined Honours.

Philosophy: Provides a choice of modules in knowledge and cosmology, and cultural manifestations of rationality, designed to bridge the gap between the sciences and humanities.

Politics: Offers a wide range of options spanning the major regions of the world, covering all forms of government and analysing fundamental political ideas.

Portuguese: Combines all forms of language work with the study of literature and/or history of Portuguese-speaking countries, including Brazil. Only available from beginners' level. Available as a joint or minor subject only (not a major). See Studying a Language on page 108.

Sociology: Covers a range of aspects of sociology, anthropology, social policy and social welfare.

Spanish and Latin American Studies: Combines all forms of language work with the study of the film, literature and history of Spanish-speaking countries, including those in South America. Available at two levels – Level A for beginners (no previous experience required) or Level B for those with grade B in A level Spanish (or equivalent). See Studying a Language on page 108.

Computer Science

We work closely with industry to design computer science degrees that help you develop the skills most in demand with graduate employers. 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** – study degrees based on our internationally recognised research, equipping you with cutting-edge advanced knowledge
- **Explore the subject and identify your interests** – try all our specialisms in your first two years and find out where your interests lie (transfer between degrees is available up to the end of the second year)
- **Boost your CV with a year in industry** – apply for an optional paid placement in industry, hosted by companies like Waterstons, 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

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See page 244 for a full list of degrees by subject.

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All Computer Science BSc Honours degrees, pages 113–116

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 113–116

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.

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:

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

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 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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

Athena SWAN Award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

Careers

Graduates 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 businesses, banks, insurance companies, the electronics industry, government – also offer employment opportunities to graduates with computer skills.

Companies such as Waterstons, 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 develop an appreciation of what it is to be a professional working in the IT industry and develop your problem-solving skills.

Stage 2: You study modules in software engineering, algorithm design and the fundamental principles that govern the operation of the internet. We introduce you to requirements analysis and databases, and the formal specification of software systems. You also work in a team to engineer a substantial software product, developing practical teamworking skills.

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

Please note: the advanced nature of our MComp degrees means that progression is subject to you achieving the appropriate academic standard in Stages 2 and 3. Students who do not meet the standard will be transferred to the equivalent BSc degree.

Computer Science

BSc Honours | G400 | 3 years |

With Industrial Placement
BSc Honours | G401 | 4 years |

MComp Honours | G405 | 4 years |

With Industrial Placement
MComp Honours | I100 | 5 years |

With Study Abroad
MComp Honours | G406 | 4 years |

All Computer Science students receive the same general introduction to computer science for the first two years (Stages 1 and 2), giving you time to see where your interests lie. See What You Will Study, left.

These degrees maintain a broad overview of all of our specialisms throughout the programme. You choose topics from across our specialist areas in later Stages, equipping you with a broad base of knowledge and keeping your career options open. You also complete a project and dissertation in an area of interest.

In Stage 4, MComp students study topics from our Advanced Computer Science MSc. A challenging project also accounts for a quarter of your time, giving you the chance to develop your individual research skills under the guidance of our leading researchers.

If you are studying our Computer Science with Study Abroad MComp, you spend Stage 3 at one of our English-speaking partner universities abroad as part of an approved exchange programme. During this year you earn academic credits which count directly towards your final degree mark.

If you are interested in one of the Industrial Placement degrees, see opposite for more information about the work placement year.

> The standard of teaching on my course is very high, as we have a lot of lecturers who are currently working on research in the fields they teach in, meaning we are at the cutting edge of information.
>
> **Natalie,** Computer Science 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 on page 113.

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 112 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 on page 113.

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 112 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. You will be able to recommend techniques and algorithms appropriate to specific circumstances in the areas of fundamental systems and major applications. You'll also be able to appreciate, develop and evaluate new algorithms, techniques and other developments within the computing field.

In addition, you'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 113.

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 112 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 113.

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

In Stage 4, MComp students study topics from our 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 112 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 |

This degree equips you with specialist knowledge and skills related to the development of dependable software systems.

You'll learn about the issues and challenges surrounding security mechanisms for computing, software verification techniques and tools, cryptography and cryptographic protocols. You'll be well placed for employment in technical positions in software houses and with companies designing and deploying dependable software in safety-critical industry sectors.

All Computer Science students receive the same general introduction to computer science for the first two years (Stages 1 and 2), giving you time to see where your interests lie before you specialise later in your degree. See What You Will Study on page 113.

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

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 113.

In Stage 3, a range of specialist topics covers the skills required for managing large-scale software projects. You develop the practical engineering skills that you need to accurately capture requirements, such as structuring software applications, understanding programming languages, real-time programming and software testing technologies. You also complete an individual project and dissertation, which requires you to research and plan a solution to a real-world software engineering problem.

See page 112 for more information about the work placement (for Industrial Placement students).

"If you are thinking about achieving big things in your life and learning as much as you can during your university studies, then this is the perfect course to take. Having the experience of being out for a placement year, I realise that everything that we have been taught is very important, and the difference between studying in a competitive course will be shown after your studies."

Andreas
Computer Science BSc Honours

Professional accreditation (see page 112) **Work placement** (see page 30)

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
- **Receive 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

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You may also be interested in...	
Biomedical and Biomolecular Sciences	
Chemistry	
Medicine	

See page 244 for a full list of degrees by subject.

"The course at Newcastle is fantastic. You will gain the skills and knowledge required to be a dentist. It is a great place to study with lots of different events going on. The dental society in the University is a great opportunity to meet and get to know the other year groups and a real community atmosphere is felt within the Dental School."

Anna
Dental Surgery BDS Honours

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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.

International Baccalaureate: A minimum of 37 points with Chemistry and Biology at grade 6 or above at Higher Level.

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. General Studies and Critical Thinking are not accepted. 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 able to undertake the rigours of either programme, especially with respect to working with patients in the clinical setting, and meet its outcomes in line with the statutory requirements of the General Dental Council. It also enables us to ensure that we provide any reasonable support necessary.

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

BDS Students

In addition to the information opposite, 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**

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 opposite, 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. Ideally you will have 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.

League Table Ranking

Dentistry at Newcastle is highly regarded; we rank 3rd in the UK in *The Times/Sunday Times University Guide 2017*. We also achieved a 96 per cent overall student satisfaction score in the *National Student Survey 2016*, ranking us 3rd in the UK. We also rank in the top 25 per cent in the UK for world-class research *(Research Excellence Framework 2014)*.

We rank 37th in the world for Dentistry in the *QS World University Rankings by Subject 2016*.

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 2017), 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**

Athena SWAN Award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

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.

"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

Dental Surgery

BDS Honours | A206 | 5 years | ✓ ✈

Dentistry today involves the prevention and treatment of a wide range of diseases of the mouth – ranging from tooth decay to oral cancer. This degree is designed to develop the skills required to provide for the complete oral health of patients, and entitles graduates to practise dentistry anywhere in the UK and in many other countries.

Clinical dental practice occupies an increasingly large part of your time as you progress through the course. We place great emphasis on the prevention of dental disease as well as on treatment. The teaching of important theoretical aspects of dentistry continues at each Stage, covering human structure, function, behaviour, clinical dental studies and related sciences.

Stages 1 and 2: You spend the first two years studying the basic biomedical sciences. This provides a basis for clinical work in later Stages. Topics include: an introduction to dentistry; molecules, cells and tissues; anatomy of the head and neck; cardiovascular and respiratory systems; oral environment; dental tissues; nutrition and diet; dental materials science; and interpersonal skills.

You see patients in clinics in the Dental Hospital while shadowing a senior student in your first year, but the teaching of clinical techniques increases markedly towards the end of the second year. You start learning procedures such as simple fillings and root treatments, using phantom heads with natural teeth, in preparation for taking responsibility for your own patients early in the third year.

Stages 3, 4, and 5: We introduce you to clinical training in the Dental Hospital, which is based in the same building as our School of Dental Sciences. You start managing your own patients by providing simple treatment under close supervision.

You learn how to prevent disease, plan treatment, treat dental decay and place fillings, undertake root treatments, treat gum disease and make dentures. You also learn how to extract teeth and even undertake simple surgery. We teach you how to use radiographs (X-rays) safely, to administer local anaesthetics, and how to deal with problems of cross-infection.

Initially the teaching of the different clinical disciplines is kept separate, but as the course progresses your cases will become increasingly complex and demand greater integration between the various skills.

Courses in pathology and microbiology in the third year give you an initial grounding in disease processes. You also have lectures and further practical courses in areas such as: radiology; preventive dentistry and public health; periodontology; crown and bridgework; advanced endodontics; gerodontology; and oral medicine.

By the end of Stage 4, you will be spending approximately half of your time on patient care and clinical dental practice, with supporting clinical-related teaching. An optional elective period at the end of Stage 4 gives you the opportunity to organise a few weeks away to study dentistry outside Newcastle. In recent years this has taken students all over the world.

In the fourth and fifth years you are exposed to advanced techniques such as orthodontics, dental implants and intravenous sedation. Your clinical commitments occupy much of your time, especially in the later years, but the teaching of important theoretical aspects of dentistry continues.

Intercalated study: After completion of Stages 2, 3 or 4, you can take a year out from your dental studies and gain an additional degree by undertaking a supervised research project in an area that particularly interests you. After completing the extra year you resume your dental studies. Current intercalation opportunities include:

- joining the third year of any of our BSc degrees in Biomedical and Biomolecular Sciences to gain a BSc Honours degree (see page 80)
- undertaking our one-year Medical and Molecular Biosciences MRes programme after Stage 3 or Stage 4 (to gain an MRes qualification)

Oral and Dental Health Sciences

BSc Honours | A207 | 3 years | ✓

This degree covers both the practical and theoretical aspects of dental hygiene and therapy. As a hygienist therapist, you work independently on patients and in close liaison with the dental surgeon. Over the course you will learn, through a combination of lectures and practical sessions, the knowledge and skills to become a caring, competent and 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.

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

Earth Science

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

- **Develop in-demand skills for your future career** – you'll gain career-enhancing skills in laboratory techniques, field skills, scientific analysis, remote sensing and global imaging systems
- **Gain practical experience** – build your field skills and experience through three residential field courses, national and international, as well as field days to the superb geology of northern England
- **Benefit from the Great North Museum on campus** – the Museum is home to more than 9,000 geological and mineralogical specimens. The Mining Institute, with one of the world's most comprehensive collections on mining engineering, is just a short walk away
- **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
- **Stand out from the crowd** – by undertaking a Year in Industry, you'll boost your employability and get a taste of working in your chosen sector

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Geography	
Surveying and Mapping Science	

See page 244 for a full list of degrees by subject.

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All degrees, page 124

A levels: AAB–ABB including two from: Mathematics; Physics; Chemistry; Geology; Geography or Biology (or similar), but excluding General Studies and Critical Thinking. For Biology, Physics and Chemistry A levels, we require a pass in the practical element. GCSE Mathematics and Dual Award Science (minimum grade B or 6) required if not offered at A or AS level.

International Baccalaureate: 33–35 points. Standard Level Mathematics or Mathematical Studies required at grade 5 if not offered at Higher Level.

"My interest in Earth science was inspired by my practical experiences of outdoor adventure travel in the UK and around the world. The course offers a broad range of interesting modules, covering all aspects of Earth science. I enjoy the practicals and field trips as they allow me to apply what I have learned in the lectures to the real world. The staff are very encouraging and are always happy to help."

Hannah
Earth Science BSc Honours

Year in Industry

Between Stages 2 and 3, spend a year on a paid industrial placement, where you'll gain first-hand experience of working in industry.

You'll put your learning into practice, and test and develop your professional expertise.

You'll develop valuable workplace skills such as communication, teamwork and project management. Securing a placement will be your first step in the transition from study to employment and there is support to help you identify opportunities, write your CV and make applications.

League Table Ranking

Earth and Marine Sciences at Newcastle ranks in the top 200 universities in the world in the *QS World University Rankings by Subject 2016*.

DTUS Sponsorship

Our Earth Science 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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

Careers

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

You will be able 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.

You will also develop a portfolio of transferable graduate skills such as team working, data analysis and interpretation, and enterprise. 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.

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

Earth Science

BSc Honours | F641 | 3 years

With Year in Industry
BSc Honours | F646 | 4 years

MEarthSci Honours | F640 | 4 years

With Year in Industry
MEarthSci Honours | F645 | 5 years

Our degrees cover three distinct areas of science: geology; geochemistry; and geomicrobiology. Understanding how these areas interact and combine to create the complexity of the Earth system is what makes Earth science such a fascinating and diverse area to study. You'll explore the Earth from the molecular level to the micro- and macroscale, from the chemistry of a single element to the processes that shape the continents.

The practical skills you develop in geomatics – the fourth element of the degree – allow you to collect and analyse data about the world, preparing you for diverse and in-demand careers. Regular field days and residential field courses provide you with the opportunity to experience the Earth in action, develop practical skills and network with Earth science professionals.

Stage 1: The first year introduces you to the key concepts of geology, remote sensing, GIS and geochemistry, whilst demonstrating the relationships between these different areas. The lectures, practical classes and field days combine to provide a foundation from which you can develop your skills in subsequent years. The residential field course will enable you to put your newly developed skills into practice by exploring geology and modern mining operations in the Lake District.

Stage 2: The second year advances the skills and knowledge gained in the first year. We introduce you to further complexity in the Earth system and explore the impacts that human activity has on the environment. The residential field mapping course to the Isle of Arran provides training in how to identify and map geological formations in the field.

Year in Industry: Between Stages 2 and 3, students on our Year in Industry degrees undertake a professional placement in the Earth Sciences sector – see page 123.

Stage 3: You are ready to explore advanced aspects of Earth science taking advantage of our world-leading research. Specialist topics such as geomicrobiology and biogeochemistry will present new insights and opportunities. The third year also has an international residential field course that consolidates your learning with practical experience at an advanced level.

Stage 4 (MEarthSci only): In the final year MEarthSci students will select one of five advanced specialisms from:

- environmental consultancy
- geotechnical/engineering geology
- petroleum geochemistry
- hydrogeology and water management
- environmental science

Studying alongside our MSc students, you undertake a major research project in your chosen specialism, which will enable you to develop your skills and knowledge to a professional level.

Work placement (see page 123)

Economics

Economics graduates are highly employable; we give you the best possible start for your career by combining your understanding of the subject, developing your industry-valued skills in numeracy, analysis and communication, and building your capacity to grasp broad issues. Our degrees are shaped by our research expertise and cover modern economic theory and policy in Britain, Europe and around the world, developing graduates who can address the economic problems facing society today.

- **Prepare for a variety of rewarding careers** – develop an excellent base for entry into a wide range of careers in economics and finance (including accounting, insurance, tax and banking, or management)
- **Boost your CV with an optional 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
- **Study abroad for an international perspective** – experience university life in another country by studying abroad for a year at one of our partner institutions (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

Cynthia
Economics BSc Honours

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Business Management	
Marketing	
Mathematics and Statistics	
Politics and Economics	

See page 244 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."

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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 or 7 and English grade B or 6 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 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.

League Table Ranking

Economics at Newcastle is highly regarded, achieving a 92 per cent overall student satisfaction score in the *National Student Survey 2016*.

Work Placement Year

You can apply to spend a year on an optional work placement between Stages 2 and 3, gaining valuable professional experience. You'll be supported by our dedicated Placement Officer, who works closely with the University's Careers Service to help you to make the most of your skills and to find the best opportunities.

Study Abroad

You can study at one of our partner universities in Europe between Stages 2 and 3, through the ERASMUS+ scheme. Explore and choose from experiences in Spain, France, the Netherlands, Germany, Poland and Scandinavia.

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 (LN12) 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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

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.

Work placement (see page 30) **Study abroad** (see page 32)

Economics

BSc Honours | L100 | 3 years |

This degree equips you with an understanding of economic issues in modern society, and of the global and national settings in which economic activities take place.You will study economic theory and policy relating to Britain, Europe and the rest of the world, with topics like: the global economy; micro- and macroeconomic analysis; and economic modelling.

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, European economics and environmental economics.

Alternatively, if you are eligible (following consultation with your Programme Director), you may spend Stage 2 studying economics at the University of Groningen in the Netherlands, which counts directly towards your final degree mark.

Work placement/study abroad (optional): You may choose to spend the year between Stages 2 and 3 on a 12-month placement working in a UK or overseas business or studying abroad at one of our partner universities. This extends your degree by a year.

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 years |

This degree combines study of the key concepts, tools and techniques of economics with a thorough understanding of business. You develop an understanding of economic issues in modern society, and of the global and national settings in which economic activities take place.

You learn about key management practices and develop practical business skills through topics such as: business enterprise; global marketing; human resources; and technology management.

Stage 1: You start by studying the foundations and key disciplines of economics, business management and marketing, and gain an understanding of the key principles and practices for the modern manager. We also introduce you to a variety of IT and quantitative skills, which will be of use both within and beyond your degree, as well as mathematical and statistical techniques in economic analysis.

Stage 2: You gain an insight into the methods used to analyse the workings of the economy with modules in micro- and macroeconomics, and develop skills in economic modelling. You may also choose from a range of business management and marketing modules that cover topics such as human resource management, business enterprise, innovation and technology management, and global marketing.

Work placement/study abroad (optional): You may choose to spend the year between Stages 2 and 3 on a 12-month placement working in a UK or overseas business or studying abroad at one of our partner universities. This extends your degree by a year.

Stage 3: You take compulsory modules in industrial economics and advanced microeconomic theory. Students who completed a placement write a placement-related project, which reflects on the business activities, markets and environments encountered during their placement. Non-placement students take a module in contemporary issues in international business management.

You 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.

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

Economics and Finance

BSc Honours | L161 | 3 years |

This degree emphasises economic concepts and tools that are relevant to an understanding of modern economics and the analysis of financial markets. You will graduate equipped with skills for a career in financial management in the global marketplace. You study topics such as: corporate finance; financial accounting; and international financial management. You also develop a thorough understanding of modern economics, including financial economics, economic modelling, and micro- and macroeconomic theory.

Stage 1: We develop your awareness and 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 that will be of use both within and beyond your degree.

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 compulsory 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, if you are eligible (following consultation with your Programme Director), you may spend Stage 2 studying economics at the University of Groningen in the Netherlands, which counts directly towards your final degree mark.

Work placement/study abroad (optional): You may choose to spend the year between Stages 2 and 3 on a 12-month placement working in a UK or overseas business or studying abroad at one of our partner universities. This extends your degree by a year.

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, financial decision making, and the issues that are of importance to a financial manager operating in a global market.

Your remaining modules are optional and cover 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. As well as pure and applied mathematics, you learn probability and statistical techniques that help you understand economics theories and address economic problems. You benefit from expert teaching and receive outstanding support to help you settle in.

Stage 1: We introduce you to the main economics issues that confront the British and European economies and help you to develop the skills needed for economic analysis. Alongside these modules, you study core topics in mathematics and statistics, including: mathematical methods; analytic geometry and the foundations of differential equations; and modelling with differential equations. We also introduce you to probability and statistics. You develop your communication and study skills by working in small group tutorials to complete a guided research investigation in business.

Stage 2: You explore the theory behind demand and supply curves, and short-, medium- and long-run economic frameworks, through modules in micro- and macroeconomics. You 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.

Work placement (optional): You may choose to spend the year between Stages 2 and 3 on a work placement in the UK or abroad. This extends your degree by a year.

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.

Work placement (see page 30) Study abroad (see page 32)

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 placements including student tutoring, volunteering opportunities and 'learning from work', as well as an optional year-long work placement
- **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

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You may also be interested in...	
Combined Honours (Education, plus up to two other subjects)	

See page 244 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."

Hannah
Education BA Honours

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Find out more on pages 30–31.

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 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 (for example, 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 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.

Work placement (see page 30)

Electrical and Electronic Engineering

Electrical and Electronic Engineering is a fascinating field, one which has strong employment prospects and a wide variety of exciting career options. Our degrees will nurture you from student to professional engineer, empowering you through practical project work and research-informed teaching. With projects designed in collaboration with leading companies, you will develop the cutting-edge skills and knowledge demanded by industry.

- **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). Our research-informed teaching ensures that you develop knowledge of current and future breakthrough technologies
- **Become a graduate in demand** – our close relationship with leading UK businesses provides valuable exposure to future employers
- **Enjoy sponsorship and scholarship opportunities** – have access to a wide range of industry sponsorship and summer work placement opportunities
- **Boost your CV with industry experience** – our graduates have found employment with prominent companies such as Siemens UK, Imagination Technologies and Jaguar Land Rover
- **Learn industry-standard electronic design and simulation tools** – our computing facilities, software and hardware are reviewed regularly to make sure you are always working with the most up-to-date equipment
- **Access outstanding facilities** – learn in state-of-the-art teaching laboratories for electronics, electrical power/motors and smart grids. We invest in our laboratories to ensure you are always working with the most up-to-date equipment available
- **Be part of a welcoming community** – a highly active student-led society, ShockSoc, a peer-mentoring scheme, and a personal tutor are just some of the ways we help you feel supported at Newcastle

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See page 244 for a full list of degrees by subject.

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All Electrical and Electronic Engineering BEng Honours degrees, pages 133–135

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 or 6 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 133–135

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 or 6 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 49 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 49 for details.

League Table Ranking

Electrical Engineering at Newcastle achieved an impressive 93 per cent overall student satisfaction, ranking us in the top 10 in the UK in the *National Student Survey 2016*. 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 (*Research Excellence Framework 2014*).

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.

Athena SWAN Award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

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 £23,000 and £26,000 per annum (Destinations of Leavers from Higher Education survey, 2014–15) and graduates can expect this to increase significantly over the course of their career. Within six months of graduating 97 per cent of our graduates were in employment or enrolled in further study.

Our graduates go on to work on the latest developments in hybrid vehicles, smartphone technology, and green energy, with companies such as Siemens, Sevcon and Jaguar Land Rover.

As well as the technical and practical expertise that you will gain, our degrees also incorporate opportunities to learn and develop transferable skills which are vital for the employment market. For example, the ability to analyse and problem-solve, project working as part of a team and on your own, communicating with others, planning and time management, and computer literacy.

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, digital electronics and linear control theory, to enable you to understand the operation of simple electrical machines and electronic communication systems.

We complement this with teaching in how to analyse, design and construct electrical and electronic circuits to meet specific criteria.

We also help you develop your computing skills and engineering mathematics knowledge. Topics cover: extended C and assembly language programming techniques; the design and testing of microprocessor systems; and the application of differential equations and linear algebra to describe complex engineering systems.

You also take part in a series of group projects to develop your skills in soldering, wiring, circuit board construction and project planning. This includes the construction of a simple digital voltmeter, a power amplifier, and a radio transmitter and receiver. In the second year, you construct a racing car that can find its own way round a track. This culminates in a race held on the last day of term, where the teams go head-to-head in pursuit of a prize.

Industrial Project (MEng Only)

A major element of Stage 4 for MEng students is an industrial project. This gives you valuable experience of finding a job in a competitive market, working on a real engineering project set by your host business, developing your CV and 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 in Europe. Recent participating companies include Tridonic, Dyson, Komatsu, Jacobs, Bentley, Siemens and Imagination Technologies. Projects have included satellite electronic communication systems for mobile phones and navigation, protocols for electronic drive control, an electric bike, underwater autonomous vehicle control and connections for low carbon technology to the power grid.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Find out more on pages 30–31.

Automation and Control

BEng Honours | H660 | 3 years |

With Industrial Project
MEng Honours | H661 | 4 years |

These degrees cover the breadth of electrical and electronic engineering during the first two years (see What You Will Study, left).

You then specialise in electrical automation and control systems, their constituent parts and their applications in the later Stages of your degree. Automation and control is concerned with the design and operation of control systems used to monitor and control production processes. Typical fields of study include electromagnetism, robotics and linear control theory.

Continued overleaf.

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 page 133). 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 during the first two years (see What You Will Study, page 133).

You then specialise in digital electronic systems, their constituents and their applications in the later Stages of your degree. Digital electronics focuses on the design and implementation of the digital systems at the heart of much modern technology. Typical fields of study include digital systems design and mobile and cellular communications.

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 133). 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 133), before giving you the chance to either specialise or continue with a broad choice of topics in the later Stages of your degree.

You cover everything from the operation and integration of nanoelectronic devices, to national-scale electricity networks. You also explore areas such as 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.

MEng students further develop their practical engineering skills through a group design project in Stage 4, alongside their industrial project (see Industrial Project, page 133). You will expand your skills in areas such as the design of modern electrical machines, and drives and distributed control systems.

Electrical Power Engineering

BEng Honours | H623 | 3 years |

With Industrial Project
MEng Honours | H622 | 4 years |

These degrees cover the breadth of electrical and electronic engineering during the first two years (see What You Will Study, page 133).

You then specialise in electrical power systems, their constituent parts and applications in the later Stages of your degree. Electrical power engineering is concerned with the generation, transmission and distribution of electric power. Typical fields of study include electrical machines and renewable energy.

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 133). You will expand your skills in areas such as the design of modern electrical machines, and drives and distributed control systems.

Electronic Communications

BEng Honours | H640 | 3 years |

With Industrial Project
MEng Honours | H621 | 4 years |

These degrees cover the breadth of electrical and electronic engineering during the first two years (see What You Will Study, page 133). You then specialise in the skills required to become an electronic communications specialist.

The development of the internet, mobile telephones and dedicated high-speed data networks has fueled a growth in international commerce and home-based shopping. It also makes information and entertainment resources readily available across the globe.

You cover everything from digital signal processing to telecommunication networks. You also explore areas such as industrial automation and robotics, digital control systems and image processing and machine vision.

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 133). 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 133) along with key computing engineering topics that are tailored to the needs of information engineers. They cover the processing of signals, whether they are represented as voltages, currents or numbers inside a computer.

Run in conjunction with Computing Science, the main emphasis is on the design of large computer systems, including software and hardware.

We concentrate on the computer systems engineering of digital systems. You cover topics such as: real-time programming; website creation and management; database system design and use; and real-time and embedded systems exploring the economics and metrics of embedded systems design.

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 133). This is aimed at developing instrumentation for intelligent vehicles.

Microelectronic Engineering

BEng Honours | H611 | 3 years |

With Industrial Project
MEng Honours | H612 | 4 years |

These degrees cover the breadth of electrical and electronic engineering during the first two years (see What You Will Study, page 133).

You then specialise in electronic systems, their constituents and their applications in the later Stages of your degree. Microelectronic engineering is concerned with the design and manufacture of electronic devices made from silicon, such as integrated circuits and sensors, as well as the development of devices using new materials. Typical fields of study include nanoscale electronic devices and integrated circuit design.

All students undertake a large individual design project in Stage 3, leading to the design and development of an original system or device. Recent projects include developing a frequency synthesiser for wireless biomedical devices, and designing and building a robot to navigate around a room.

MEng students further develop their practical engineering skills through a group design project in Stage 4, alongside their industrial project (see Industrial Project, page 133). You will develop specialist skills in design capture, and simulation and design synthesis techniques.

English Literature, Language and Linguistics

We're in the top 10 in the UK for English literature and language and it's not hard to see why. We've been teaching English here for over 100 years and we attract leading academic experts to teach our degrees. Our study topics span centuries and continents, giving you the chance to tailor your degree to your interests. Our award-winning Library, a theatre on campus and a lively student media scene contribute to a community where learning, culture and creativity go hand in hand. The success of our graduates is testament to the quality of our degrees.

- **Enjoy choice and flexibility** – our degrees offer 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 access to over one million printed books, six million e-books, special collections 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
- **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
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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Combined Honours (English, plus up to two other subjects)	
Media, Journalism and Film	
Modern Languages and Linguistics	

See page 244 for a full list of degrees by subject.

> I enjoy that every lecture teaches me something new, which is great when you're studying something you are genuinely interested in.

Ruby, English Langauge BA Honours

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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.

League Table Ranking

The quality of the English study experience at Newcastle is recognised with a top 20 UK ranking in *The Times/Sunday Times University Guide 2017*. We also achieved a very impressive 90 per cent overall student satisfaction score in the *National Student Survey 2016*. 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 2016*.

Linguistics at Newcastle ranks in the top 10 UK universities in *The Times/Sunday Times University Guide 2017* and *The Complete University Guide 2017*. We also rank in the top 150 universities in the world in the *QS World University Rankings by Subject 2016*.

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 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 fields like the legal profession, journalism, public service, marketing, advertising, management, librarianship, teaching, speech therapy – in fact, any field where communication is important, including science, finance, business, trade and international relations. The skills you gain on our degrees 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).

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

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Find out more on pages 30–31.

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. All our partner institutions offer teaching at the highest level in English literature, language and linguistics, giving you the opportunity to study exciting modules in a very different environment.

Students studying Linguistics with French, German, Spanish, Chinese or Japanese spend a full academic year abroad as part of their degrees, organised and supported by the School of Modern Languages.

If you are studying a European language you may spend the year:

- studying at one of our partner institutions
- teaching English as a foreign language abroad under the British Council English Language Assistantship Programme
- working, or combining study and work

Students of Chinese and Japanese spend the year in China or Japan, studying at one of our partner universities or undertaking an approved work placement.

English Language

BA Honours | Q302 | 3 years |

This degree explores the English language as it has developed over time. You'll learn how it is acquired as a first and second language, and how it is used to mark social, regional and stylistic distinctions. There is a strong element of linguistics in this degree. You gain knowledge of the emergence and growth of language in the mind, as well as methodologies for studying the human language faculty.

Topics also include the grammatical structure of English and general phonetics/phonology, as well as the social and historical context in which the English language has changed and developed.

There is flexibility at each Stage to also choose topics from our English Literature and Linguistics degrees. These could include language options, such as Chinese, Japanese, German, French and Spanish (taught in the School of Modern Languages) as well as poetry, creative writing, drama, children's fiction and film modules (taught in the School of English Literature, Language and Linguistics).

Stage 1: We lay the foundation for analysing and describing the English language. We focus on topics such as word and sentence structure and general phonetics/phonology, incorporating an understanding of differences in English across time and regional space. You explore the nature of language itself, from animal 'language' to Standard and dialectal Englishes, and ways of collecting, evaluating and displaying data about them.

Stage 2: You focus on the social context in which language is embedded as well as exploring how English has changed over time. You can also study linguistic methods for analysing the structure of sentences and sound patterns of language in more depth, and can choose modules that explore the science of meaning and language in context.

Stage 3: You work with increasing independence to develop your own specialist interests, by choosing from topics linked to the research specialisms of your lecturers. These may include: child language acquisition; discourse analysis; language origins and evolution; the acquisition of English as a first or second language; language and ethnicity; advanced phonology or grammar; and the history of English grammar. There are also extended study and dissertation modules that give you the chance to investigate in greater depth a topic that you are passionate about. There may also be opportunities for you to participate in ongoing research projects.

English Language and Literature

BA Honours | Q300 | 3 years |

This degree combines elements from our English Language and English Literature degrees in roughly equal proportions, developing your skills and knowledge in both subjects.

You study at least one third of your topics in each discipline at each Stage. You have the freedom to choose the remaining third from a wide selection of our language, linguistics or literature modules, or from other subject areas.

Stage 1: We lay the foundations for the theoretical and historical study of language and literature. We introduce you to general topics on the nature of language and more specific ones such as the investigation of regional dialects.

Stages 2 and 3: Your language modules develop your knowledge of formal approaches to the structure of English, the history of the English language, the social contexts in which English is used, and scientific methodologies for studying these phenomena as a window on the human language faculty.

In literature, you 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. An independent study module or dissertation gives you the chance to investigate in greater depth a topic that you are passionate about.

English Literature

BA Honours | Q306 | 3 years |

This degree provides you with an excellent education in literature, drama and film. Taught by accomplished scholars, this flexible degree offers a wide range of module choices with extensive historical coverage. There are opportunities to practise creative writing and theatre, to make films or join a work placement in one of the region's cultural industries. However, our principal aim is to deepen your knowledge of literary texts and give you a firm foundation in the critical and theoretical skills needed to analyse them.

Stage 1: We introduce you to a variety of literary texts (poetry, prose, plays and film). This will provide you with a good foundation in the critical and theoretical skills you need to analyse the literature you will be studying at Stages 2 and 3.

Stage 2: You advance your knowledge and understanding of English literature through the ages. You take at least two pre-20th-century topics alongside at least two contemporary ones. Film, theatre, poetry and prose are included in these option choices, as are American, postcolonial and contemporary literatures. An independent research project teaches you how to research, plan and write an essay on an area of literary study of particular interest to you.

Stage 3: You continue to broaden and deepen your understanding of English literature by choosing four specialist options closely linked to your lecturers' research expertise (the only restriction being that you need to cover at least one earlier period topic and a more contemporary one). Current options include: Chaucer; Milton; the Victorian novel; the child in contemporary performance; Romantic poetry; postwar British fiction; Caribbean literature and film or a work placement in the cultural industries. You also either write a final-year dissertation based on the in-depth study of a topic you are passionate about or produce a file of original creative work (a collection of poems, a work of fiction, a play, or a film script).

English Literature and History

BA Honours | QV31 | 3 years |

This degree builds on the long-established partnership between the School of English Literature, Language and Linguistics and the School of History, Classics and Archaeology. We work together on this degree to offer students the best of both disciplines.

You will learn the skills of close reading and literary analysis, and acquire the ability to evaluate and synthesise a wide range of evidence. These skills will combine to create a graduate who can think flexibly, argue cogently, and fluently communicate complex ideas to a wide range of audiences.

Stage 1: We introduce you to a range of methodological techniques and to historiographical and literary-critical traditions relating to both subjects. You then choose from a range of modules to develop a strong foundation of knowledge and understanding in both subjects. In history these include British, European, American and world history. In English these include: literature from the Anglo-Saxons to the Romantics; 20th- and 21st-century literature and film from Britain and America; the history of drama and performance; and creative writing.

Continued overleaf.

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

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 study the history of Victorian Britain and a module on 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, supported by two supervisors.

There is also the choice of taking modules offered by other schools within the University at all Stages of your degree, including several language options.

English Literature with Creative Writing

BA Honours | QW38 | 3 years |

Combine the study of English literature with the chance to develop your creative skills under the guidance of our talented and well-known staff. This degree draws on the wealth of creative talent in the School of English Literature, Language and Linguistics, as well as the activities of the Newcastle Centre for the Literary Arts.

Stage 1: We introduce you to a variety of literary texts (poetry, prose, plays and film) and provide you with a good foundation in the critical and theoretical skills you need for your studies at Stages 2 and 3. You explore different ways of approaching creative writing, develop your creativity and gain experience of writing in different forms.

Stage 2: The second year advances your knowledge and understanding of English literature through the ages and strengthens your sense of the relationships between critical and creative writing. At the same time, it gives you the chance to develop your craft and literary techniques in poetry, prose or script.

Stage 3: You will be supported in the production of a file of original literary work (a collection of poems, a work of fiction, a play or a film script) that will bring together everything you've learnt about creative writing and allow you to devise a project that demonstrates your individuality as a writer.

You also choose four specialist options in literature, all closely linked to your lecturers' research expertise. Current options include: 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 language acquisition and historical linguistics.

Stage 3: You work with increasing independence to develop your own specialist interests by choosing from topics linked to your lecturers' research specialisms. These include: syntactic and phonological theory; low-educated second language and literacy acquisition; language origins and evolution; child language acquisition; language change; and discourse analysis. There are also extended study and dissertation modules that give you the chance to investigate in greater depth a topic that you are passionate about. There may 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 opposite), 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. You also begin to develop your reading, listening, writing and speaking skills in preparation for your year abroad.

Stage 3: You spend your third year studying in either China or Japan (see Study Abroad, page 138). We have links with universities across both countries. See **www.ncl.ac.uk/undergraduate/degrees/q1t4** for more details.

Stage 4: You continue to study advanced language modules in your chosen language, reflecting the fluency you will have gained during your year abroad. An extended project gives you the chance to study in greater depth a topic that you are passionate about. The remaining half of your topics are optional and are linked very closely to your lecturers' research specialisms. These currently include: syntactic and phonological theory; low-educated second language and literacy acquisition; language origins and evolution; child language acquisition; language change; and discourse analysis.

Linguistics with French

BA Honours | Q1R1 | 4 years |

Linguistics with German

BA Honours | Q1R2 | 4 years |

Linguistics with Spanish

BA Honours | Q1R4 | 4 years |

These degrees combine the study of linguistics with insights from a European language, to explore how language works and what it does.

At each Stage, you spend two thirds of your time studying linguistics, concentrating on the structure, history and sociological aspects of English and other languages. For the remaining third, you have language classes in French, German or Spanish. These are available from beginners', intermediate (post-GCSE or equivalent) or advanced level (post-A level or equivalent), to match your previous experience. You also spend a year abroad during Stage 3.

Stages 1 and 2: The linguistics topics you study are broadly similar to our Single Honours Linguistics degree (see opposite). Your language tuition involves two hours a week on speaking, reading, writing and listening skills, taught by a native speaker of the language you're learning. You also have a weekly one-hour grammar lesson. You complement this with modules aimed at helping you to understand the culture and society of the country where your chosen language is spoken. In addition, German speakers can take modules in beginners' Dutch, while Spanish speakers can take modules in Catalan or the indigenous Latin American language, Quechua.

Stage 3: You spend your third year studying or working in a French-, German- or Spanish-speaking country. See Study Abroad on page 138 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 project gives you the chance to study in greater depth a topic that you are passionate about. The remaining half of your topics are optional and are linked very closely to your lecturers' research specialisms. These currently include: syntactic and phonological theory; low-educated second language and literacy acquisition; language origins and evolution; child language acquisition; language change; and discourse analysis.

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

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 professionals in the environmental sector and gain an insight into different careers through our strong links with estate managers, local authorities, voluntary organisations, farms, and other land-based businesses
- **Boost your CV with a work placement** – take a year-long work placement in the environmental sector to boost your employability and put your skills in practice
- **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

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Agriculture	
Animal Science	
Biology and Zoology	
Geography	

See page 244 for a full list of degrees by subject.

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Countryside Management BSc Honours
Rural Studies BSc Honours

A levels: ABB–BBB. GCSE Mathematics (minimum grade C or 4) 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
All Environmental Sciences MEnvSci Honours options

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 or 4) 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 50.

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 2017*. We also achieved a 97 per cent overall student satisfaction score in the *National Student Survey 2016*, ranking us 4th in the UK. Environmental Sciences at Newcastle ranks in the top 150 universities in the world in the *QS World University Rankings by Subject 2016*.

Athena SWAN Award

In 2014, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

Work Placement Year

All of our degrees are available with a work placement. You'll receive support to apply for a suitable placement, including help to write your CV to send out to our wide range of industry contacts.

You'll gain first-hand experience of working in the environmental sector, putting your learning into practice and developing your professional expertise. If you impress your host company, it could even result in a job offer on graduation.

Study Abroad

BSc students from the UK and EU may choose to take their work placement abroad through the Erasmus scheme.

MEnvSci students can integrate six or 12 months of study abroad as part of their degree, usually at Stage 3. Recent students have studied in Canada.

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.

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.

Many also find employment with: conservation bodies like 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 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.

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

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. You have the opportunity to experience management in action through a series of site visits in the region. It is possible to transfer to our Rural Studies degree at the end of Stage 1 should you wish to.

Stage 2: You cover more specialised topics in land management, 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.

Work placement year (optional): Apply to spend a year on a work placement between Stages 2 and 3. This extends your degree by a year. See page 143.

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. Optional modules include topics such as environmental law, estate management, ecology and environmental research, and sustainable land or water management.

Environmental Science

BSc Honours | F850 | 3 years |

With Placement BSc Honours | F851 | 4 years |

Environmental science is the study of the whole environment. It covers both biological organisms and our physical environment, and the interactions between them. Biology and geography are important parts of these degrees, to help you understand the processes within ecosystems and how we can manage our natural resources more effectively. You will also study chemistry, physics and geology as applied to the study of the environment. In addition, you learn about the role of social and economic factors, ethics and public perception in environmental management.

Stage 1: We introduce you to a number of topics in environmental science, physical geography, plant biology and ecology, which lay the foundations for more specialised study in later Stages.

Stage 2: You study compulsory modules that cover topics in the practice of environmental science, terrestrial ecosystems and pollution. You develop your professional skills with a focus on both career development and research. You also select optional topics from a range that includes: conservation; landscape, culture and heritage; population ecology; and economics.

Work placement (F851): Spend a year between Stages 2 and 3 on a work placement in the UK or abroad, gaining valuable practical experience in the environmental sector and developing an understanding of the environmental industry.

Stage 3: You take part in a residential field course that develops your ecological research skills and your professional skills in writing and presenting reports. You also study compulsory topics in sustainability, environmental impact assessment and project management, and apply a range of research methods in a study of environmental pollution. A quarter of your study time is made up of optional modules, which allow you to select topics to study in detail such as: conservation; ecological modelling; policy evaluation; environmental law; and countryside management.

Environmental Sciences

Agricultural and Environmental Science
MEnvSci Honours | F8D4 | 4 years |

With Placement MEnvSci Honours |
FD84 | 5 years |

Clean Technology
MEnvSci Honours | F8H8 | 4 years |

With Placement MEnvSci Honours |
FH88 | 5 years |

Ecosystem Management
MEnvSci Honours | F8C1 | 4 years |

With Placement MEnvSci Honours |
FC81 | 5 years |

Environmental Geochemistry
MEnvSci Honours | F8F6 | 4 years |

With Placement MEnvSci Honours |
FF86 | 5 years |

If you are planning a career in the environmental sector or academia, or think you might want to study for a higher qualification such as a PhD, we encourage you to apply for one of these Integrated Masters' degrees.

They follow the same programme as the Environmental Science BSc Honours for the first three years (see opposite) but include an additional year of advanced study in a specialist area of environmental science. You undertake a substantial research project in the fourth year, which gives you experience of working in a research environment.

Transfer between all our Environmental Sciences degrees is possible up to the end of Stage 2 if you meet the appropriate academic standard.

Stages 1 to 3: See Environmental Science BSc Honours, opposite. MEnvSci students may choose to spend Stage 3 studying overseas on a linked Study Abroad or Erasmus programme instead of at Newcastle.

MEnvSci Placement Year degrees: Placement MEnvSci degree students spend a year between Stages 2 and 3 on a work placement in the UK or abroad. You'll gain valuable practical experience in, and develop your professional understanding of, the environmental sector.

Stage 4: The fourth year is designed around the research currently taking place at the University in one of four specialist areas:

- agricultural and environmental science
- clean technology
- ecosystem management
- environmental geochemistry

You undertake your own research project in an area of interest, relating to your chosen specialism. This accounts for a quarter of your study time and may involve scientific research or a consultancy-based investigation.

Rural Studies

BSc Honours | D452 | 3 years |

This degree is ideal for anyone whose interest in the countryside centres around the social, economic and political systems that we use to manage the environment and support rural businesses and communities. It focuses on issues of rural development and rural resource management.

Stage 1: We introduce you to the context of rural studies through topics such as economics, rural development, environment and land use, marketing and business management. You will visit various rural enterprises and sites. These introduce you to a range of countryside professionals and provide an insight into some of the problems facing today's rural enterprises. It is possible to transfer to our Countryside Management degree at the end of Stage 1 should you wish to.

Stage 2: You study land law, research methods, accounting and finance, and landscape management. You also have a choice of optional topics covering areas such as 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.

Work placement year (optional): Apply to spend a year on a work placement between Stages 2 and 3. This extends your degree by a year. See page 143.

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.

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

Fine Art

Fine Art at Newcastle will develop your individual creative strengths and ambitions through a carefully structured course combining studio practice with 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. These 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 student-staff ratio
- **Bring your ideas to life in purpose-built studios** – enjoy superb campus studios, workshops and exhibition spaces for creating and exhibiting work across all fine art media, including large-scale work, installations, video- and time-based practice
- **Enjoy a dynamic learning experience** – participate in 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 region
- **Study in a cultural city** – Newcastle is home to a vibrant arts culture, with over 400 artists' studios in the city centre alone, from the larger BALTIC to a thriving independent sector with galleries like Vane, Workplace and NewBridge
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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You may also be interested in...	
Combined Honours (History of Art, plus up to two other subjects)	

See page 244 for a full list of degrees by subject.

> The course at Newcastle is among the best in the country. It has some of the best equipment and allows for the greatest, most supported exploration into your artistic practise. You are taught and supported by a teaching staff made up of practising artists and well-regarded art historians.

Oliver
Fine Art BA Honours

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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 92 per cent in the *National Student Survey 2016*, ranking us top 20 in the UK. We are also ranked 1st in the UK for Fine Art in *The Times/Sunday Times University Guide 2017*.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Find out more on pages 30–31.

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, Tromso, 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 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. Run in collaboration with many regional and national arts organisations, such as BALTIC, the NewBridge Project and Newcastle City Council, this module gives you a vital insight into a broad range of professional arts-based practices and potential career paths. Skills are developed through live projects: exhibitions, placements, public art, collaborations and residencies.

Stage 1: A series of studio-based projects introduces you to painting, print, sculpture and time-based media. You can also choose from artist-led workshops in contemporary drawing, performance art, web-based work and digital media. In Semester 2 you produce work based around the idea of Narrative, towards a large group exhibition.

Within LifeWorkArt, you visit galleries, studios and arts projects, developing contacts with the people who run them. You also develop a group exhibition, gaining skills in curating, installation, marketing, fundraising and project planning.

Lectures and seminars in art history lay the foundation for future study with a chronological introduction to Western European art from 1300 to 1900 in Semester 1 and European modernism from 1900 to 1945 in Semester 2.

Stages 2 and 3: You continue to work across studio disciplines, increasingly directing your work in the media that best support your ideas. You have a choice of history of art modules, including 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 a study abroad 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.

You will develop professional skills in presenting yourself and your work, and have the opportunity to start building your network within the visual arts, through a series of hands-on practical workshops and a conference where you meet recent graduates, artists, curators and arts professionals.

> The teaching quality is outstanding and really varied. Teaching includes one-to-one tutorials, group critiques, lectures, external artists' critiques and practical-based sessions with technicians, to name but a few.

Rachel
Fine Art BA Honours

Work placement (see page 30) **Study abroad** (see page 32)

Geography

Geography at Newcastle enjoys a near 90-year history and a leading international reputation for teaching and research. Geography degrees at Newcastle offer both choice and specialisation, with a wide choice of research-led topics taught by our expert staff. Fieldwork is central to our degrees, with a huge range of exciting options abroad and in the UK. You will graduate with a well-developed understanding of the changing world around us, and the specialist and transferable skills to address the key societal, economic and environmental challenges that face the world 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, from broad-based degrees to more specialist areas
- **Learn from leading experts** – graduate with the latest subject knowledge thanks to research-led teaching that incorporates the latest discoveries of our research-active staff
- **Gain practical skills through fieldwork** – opportunities vary between degrees but include locations like Barcelona, Berlin, Borneo, Copenhagen, Cyprus, Hong Kong, 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; recent expedition destinations include: Greenland, Iceland, Svalbard and Chile
- **Join our vibrant geography community** – enjoy an extended induction programme to help you settle in, plus close interaction with teaching staff, your personal tutor, a student mentor and our highly active student society
- **Choose a professionally accredited degree** – our Geographic Information Science degree is professionally accredited, as is the first year of our Geography and Planning degree
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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Civil Engineering	
Combined Honours (Geography, plus up to two other subjects)	
Earth Science	
Environmental and Rural Studies	
Surveying and Mapping	
Urban Planning	

See page 244 for a full list of degrees by subject.

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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 or 4) 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 and Geology. General Studies is not accepted. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Mathematics (minimum grade C or 4) is also required if not offered at a higher level.

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, and Geology. 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 or 4) 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
Geographic Information Science with Year in Industry 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 or 6 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."

Hugh
Geography BA Honours

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 2017*. We also achieved an impressive 94 per cent overall student satisfaction score in the *National Student Survey 2016*. 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 2016*.

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.

Work Placement Year

If your chosen degree doesn't have an integrated work placement year, you can still apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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.

Year in Industry

On our Geographic Information Science degree, between Stages 2 and 3, spend a year on a paid industrial placement, where you'll gain first-hand experience of working in industry.

You'll put your learning into practice, and test and develop your professional expertise.

You'll develop valuable workplace skills such as communication, teamwork and project management. Securing a placement will be your first step in the transition from study to employment and there is support to help you identify opportunities, write your CV and make applications.

DTUS Sponsorship

Our Physical Geography degree, and our Geographic Information Science 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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

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; project management; problem-solving; numeracy; computing; mapping and graphics; 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 Barclays, 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.

Our graduates work all over the world applying, analysing, managing and creating geographic data and products. Recent graduates have become surveyors, consultants, and GIS and data analysts. 100% of recent graduates were in work with an average salary over £26,000; employers include IBM, Network Mapping and Fujitsu*.

***Destinations of Leavers of Higher Education 14/15, based on 10 respondents.**

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

Geography

BA Honours | L701 | 3 years |

BSc Honours | F800 | 3 years |

These degrees offer an extremely flexible study programme with the option to specialise in human geography, physical geography, or study a combination of both.

Stage 1: We introduce you to some of the key issues facing our world, such as the effects of social and economic change, the impacts of globalisation, geopolitics and uneven development, climate and environmental change, natural hazards, and water resources. You also explore a range of key themes in human and physical geography. Up to a third of your modules are optional and can include a module in modern languages, history, politics or mapping. There is also an optional residential physical geography field trip to the Lake District.

Stage 2: You have a choice of destinations for your Stage 2 residential field course, currently including the American Southwest, Barcelona, Borneo, Berlin, Copenhagen, Cyprus, Hong Kong, Iceland, Ireland and Morocco.

You study a module in advanced research techniques and choose a module in either key methods for human geographers or key methods for physical geographers. Your remaining topics are optional, giving you the chance to engage with our cutting-edge research in areas such as: water and river science; political geography; social geography; glacial environments; economic geography; globalisation, culture and development; and reconstructing Quaternary environments.

Stage 3: Stage 3 modules enable you to develop an in-depth knowledge of both global and local issues. You have a wide choice of optional modules that are directly linked to the research work of our staff. Areas include: applied geomorphology and natural hazards; local and regional development; global water resources; international and historical perspectives on race; geopolitical thought and practice; landslides; polar environments; the geographies of money; Caribbean societies; geographies of sustainability; global environmental change in the Anthropocene; 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 understanding the natural environment. The course has a wide range of module options and a strong emphasis on fieldwork in the UK and overseas.

Stage 1: You explore a broad range of global environmental issues (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). You put this training into practice during a residential field course in the Lake District.

Stage 2: You deepen your understanding of physical geography, with a wider choice of topics and modules, and research training for your Stage 3 dissertation. Modules currently available include: key methods in physical geography; reconstructing Quaternary environments; aquatic pollution; glacial environments; rivers; surveying; photogrammetry and laser scanning.

A residential field trip, preparing you for your final-year dissertation, is a key Stage 2 module. Current destinations include the American Southwest, Iceland, Morocco and Ireland.

Stage 3: You have a choice of optional modules and complete a dissertation. The dissertation represents a third of your study, giving you the chance to undertake your own piece of research and investigation. Specialist optional modules, closely linked to the research interests of our staff members, provide cutting-edge insights into exciting areas of physical geography.

Modules include: tectonic geomorphology; polar environments; global water resources; applied geomorphology and natural hazards; landslides from pole to pole; global environmental change in the Anthropocene; 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 Stage 1 means you may be able to transfer to Stage 2 of our Urban Planning BA Honours degree or Master of Planning degree, which offer a more direct route to a career as a planner (see page 227).

Stages 2 and 3: The study themes continue. You can specialise by choosing topics from one theme in both years, or maintain a breadth of study by choosing topics from multiple themes. You undertake research training and follow modules designed to develop your employment skills. In Stage 3, you complete a dissertation on a topic of interest to you. This gives you the chance to develop and demonstrate your social science research skills.

Geographic Information Science

BSc Honours | F862 | 3 years |

With Year in Industry
BSc Honours | F867 | 4 years |

This degree focuses on the systems and software for analysing geographic data about the world around us. It will appeal to students with an interest in technology, mapping, geography and the environment. 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 226).

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 energy and infrastructure companies.

Stage 1: You study alongside our Surveying and Mapping Science students and explore a wide range of geographic techniques including: land surveying; GPS; satellite imagery; and Geographic Information Systems, often through practical and outdoor work. This year is very hands on, with plenty of opportunities to start using our state-of-the-art equipment, particularly on our residential field course in the Lake District. You will also learn the fundamental mathematical techniques required to analyse and process geographic data.

Stage 2: You undertake more advanced studies in GIS and develop your knowledge of how it is used to collect, manage and analyse geographical data in a range of different jobs and application areas. You will deepen your knowledge of GIS theory and learn to use informatics tools to manage, manipulate and visualise that data.

Year in Industry: Between Stages 2 and 3, students on our Year in Industry degree undertake a professional placement in the relevant sector, see page 151.

Stage 3: The year starts with a field course that gives you the chance to use professional GIS software and field equipment. You then undertake a set of advanced GIS modules that covers emerging, cutting-edge industrial techniques, approaches and applications, including a specialist module in geospatial informatics. A major aspect of Stage 3 is the independent research project that you develop throughout the year and which forms a quarter of the final-year assessment.

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. Enjoy all the benefits of being part of our 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, including historical special collections dating back to the mid-15th century
- **Enjoy flexibility and choice** – shape your degree to suit your interests with topics from other subjects, such as archaeology, classics, politics, philosophy or a modern language
- **Access world-class treasures in the University museum** – the Great North Museum 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
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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Archaeology	
Classics and Ancient History	
Combined Honours (History, plus up to two other subjects)	
English Literature and History	

See page 244 for a full list of degrees by subject.

"Politics and History combines the old with the new. Someone once told me that history is past politics and politics present history. I can learn about how events affected people in the past and learn about how it is still affecting them now."

Alex
Politics and History BA Honours

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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.

Rich
History BA Honours

"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."

League Table Ranking

History at Newcastle ranks in the top 20 UK universities in *The Complete University Guide 2017*.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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 charity sectors. As a result our graduates enter careers in a variety of areas: 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.

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

History

BA Honours | V100 | 3 years |

This degree will open your mind to the past, present and future, with topics that stretch from the birth of civilisation up to the present day. We have one of the most comprehensive and broad history degrees available, with flexibility to choose the options that fascinate you most from our wide range of modules. You can also select topics outside history, such as archaeology, classics, politics, philosophy or a modern language. Languages are particularly useful if you want to become a professional historian.

Stage 1: The first year is structured to give you a firm grounding in the techniques of historical investigation, interpretation and analysis, and to introduce you to a variety of historical themes, geographical areas and periods. Half of your topics are optional and your choice includes aspects of British history, themes in European history and the history of the Americas, as well as topics from other subjects.

Stage 2: You have the freedom to follow your own interests from an extremely broad choice of modules. Topics span centuries and continents, for example: the Dark Ages; slavery and antislavery in the Atlantic world; society and politics in colonial India; the Soviet experiment; Islam; history of western medicine; and the history of contemporary Britain.

Stage 3: You choose from several special subjects. These involve the detailed examination of a specific historical topic and are based largely on original documents. Topics to choose from might include: Viking-Age Scandinavia; Elizabeth I; the American Civil War; China in Revolution; the Irish Revolution; civil rights in America; or Nazi 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 of 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 at one of our prestigious international partner universities in Europe and Asia. 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 develop key skills such as teamwork, leadership, legal research, presentation and public speaking, whilst making a worthwhile contribution to the local community or helping provide vital services to people in real need
- **Spend a year on work placement** – apply to take a year-long work placement, gaining valuable workplace experience

> If you would like to join a close-knit community of hard-working students under supervision of outstanding academic staff, while exploring a wide variety of subjects, you should choose Newcastle Law School.
>
> **Aleksandra,** Law LLB Honours

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See page 244 for a full list of degrees by subject.

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 94 per cent in the *National Student Survey 2016*. We also rank in the top 20 UK universities in *The Times/Sunday Times University Guide 2017* and *The Complete University Guide 2017*.

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.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad.
Find out more on pages 30–31.

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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.

Study Abroad

Students can broaden their academic experience and enrich their time at University by applying to join one of our qualifying Law degrees that encompass a year abroad, either the Law (European Legal Studies) or Law (International Legal Studies) degrees at the end of their first year. These four-year degrees involve spending your third year studying law at one of our highly regarded international partner universities.

The European degree offers exchange places with KU Leuven (Belgium), the University of Copenhagen (Denmark), the University of Groningen (the Netherlands), the University of Oslo (Norway), and the University of Pompeu Fabra (Barcelona, Spain) through the Erasmus+ exchange programme.

The International degree currently offers the study abroad opportunity with the National University of Singapore, and other partnerships are being developed in this new and exciting degree.

All of our partners teach in English so language skills are not required. Successful completion of this year is recognised in your degree title on graduation: either Law LLB Honours (European Legal Studies) or Law LLB Honours (International Legal Studies). Places are available on a competitive basis.

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 years |

This degree offers rigorous academic training in the principles of English law. All the modules in Stages 1 and 2 are compulsory to cover the essential foundation subjects in law (and gain exemption from the first part of the legal professional examinations).

You will have lots of opportunities to meet legal professionals and build contacts. From induction week onwards we bring law firms to you, to give you up-to-date advice and to answer your questions. Solicitors from local firms judge the performance of every first-year student in the Law School's client interviewing competition, helping you hone your legal skills from the outset of your studies. We also organise an annual Law Careers Fair, in conjunction with the Careers Service, giving you the opportunity to establish relationships with legal employers.

Stage 1: This Stage covers a thorough grounding in contract law, public law and land law. Through our legal institutions and method module, we introduce you to the nature of the judicial process in England and Wales, and the structure of the courts and tribunals. You also develop and practise the core professional legal skills, including interviewing clients and using legal databases, which will be useful in your future career.

Stage 2: You continue to study foundation legal subjects: criminal law, general principles of tort, EU law and equity. By the end of Stage 2 you will have completed the seven foundation modules of legal professional qualification, giving you the freedom to explore the areas of law that interest you most for the remainder of your degree.

Year abroad: Students who have secured a place on our European Legal Studies or International Legal Studies pathway spend a year studying law at one of our prestigious partner universities overseas. This extends your degree by a year. See Study Abroad, 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 focused on your own research project.

Professional accreditation (see page 157) **Work placement** (see page 30) **Study abroad** (see page 32)

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 cover living organisms of all sizes, from marine microbes to whales. You will 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

> My favourite parts are the field weeks, where we spend time in each semester at the lab by the coast in Cullercoats. We travel to visit the habitats and environments we've spent weeks reading about, and undertake practical work to further our understanding. This really helps to get a glimpse of what it might be like to work as a marine scientist.
>
> **Hanne,** Marine Zoology BSc Honours

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Marine Technology	

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League Table Ranking

Earth and Marine Sciences at Newcastle ranks in the top 200 universities in the world in the *QS World University Rankings by Subject 2016*.

Athena SWAN Award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Find out more on pages 30–31.

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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 or 6).

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.

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 in a range of roles and organisations, such as:

- 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

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.

Work placement (see page 30)

Marine Biology

BSc Honours | C161 | 3 years |

This degree provides you with a comprehensive understanding of human interaction with the marine environment. You'll study all marine life, from marine bacteria to large invertebrates and mammals. We place particular emphasis on humankind's relationship with the marine environment, as well as how we can achieve sustainable management of this precious ecosystem.

Stage 1: We introduce you to the biology of marine animals with a particular emphasis on invertebrates, fish, seabirds and marine mammals. You also learn about the plants, algae and cyanobacteria that provide the foundation of almost all marine food webs. You explore the chemical and physical properties of the oceans, and their impact on marine life, as well as the major ecosystems in the marine environment. You gain practical experience through laboratory classes and fieldwork, including opportunities aboard the University's research vessel. You also undertake a residential field course to help 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 manmade structures into the marine environment. You gain practical experience through laboratory classes and fieldwork, including opportunities aboard the University's seagoing research vessel, which is equipped with specialist oceanography equipment. You also share many topics in common with our marine biologists, concentrating on the biology of marine plants and animals, marine biodiversity and marine ecosystems.

Stage 2: You begin to focus on the science of oceanography, with modules exploring the key biogeochemical processes in estuaries and coastal seas, and the global distribution of marine life in the world's oceans. You also study issues connected with marine protection, including marine pollution and the fishing industry. We use field-based practicals to support this. You undertake a residential field course, developing essential skills and deepening your appreciation of the UK's marine biodiversity. You can work with professional oceanographers and technologists during a work placement as part of the graduate employability skills module.

Stage 3: You continue your advanced and independent study in marine biology and oceanography, including the chance to study topics at the forefront of marine sciences research. You carry out your own individual research project in the UK or abroad, giving you the chance to gain an in-depth knowledge of an area of marine biology or oceanography that particularly interests you.

Marine Zoology

BSc Honours | C350 | 3 years |

It is important for us to understand the biology and function of marine animals if we want to understand how to conserve and protect them. In this degree, you concentrate on the study of animals in the marine environment, from single-celled organisms right up to the largest mammal on Earth, the blue whale. This degree has a stronger emphasis on genetics, cellular and sub-organism processes than our other two marine sciences degrees, as well as providing an understanding of the marine environment in which animals thrive.

Stage 1: You study topics in marine zoology and biology that deal with the form, function and classification of marine animals. You also focus on cell biology and genetics, marine ecosystems and biological oceanography. You gain practical experience through laboratory classes and fieldwork, and a small group tutorial system provides training in essential research skills. You undertake a residential field course to develop essential skills and gain an appreciation of the UK's marine biodiversity.

Stage 2: We place special emphasis on topics such as: the adaptations of marine organisms to life in tropical and extreme environments; molecular biology and genomics; and field and laboratory techniques. You will study creatures of all types and sizes, from zooplankton to marine mammals and birds. You'll also develop an appreciation of emerging issues in marine sciences and the use of information technology. An internship with an outside organisation gives you practical work experience in the sector.

Stage 3: You continue your advanced and independent study in marine zoology, including the chance to study topics at the forefront of marine sciences research. You carry out an individual research project under the supervision of a member of staff, which counts for one third of your time throughout the final year. This can involve laboratory work or fieldwork, computer-based study or use of the University's research vessel.

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

Marine Technology

We apply science and engineering principles 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 that are applied to technologies including cargo ships, cruise liners, racing yachts, offshore platforms and 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.

- **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 towing tank for ship model experiments
  - a wind-wave-current tank for simulating a complete offshore 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
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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Foundation Programmes	
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Mechanical Engineering	

See page 244 for a full list of degrees by subject.

Athena SWAN Award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All Marine Technology MEng degrees, pages 164–165

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 or 6) required if Physics 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 Marine Technology BEng degrees, pages 164–165

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 or 6) required if Physics 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 49 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 49 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.

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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS

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 degree-qualified marine engineers, naval architects, experts in computer-aided design, production specialists, and managers. Many of these roles are based in multinational companies, which allows for an international career.

Government departments, classification societies and various regulatory agencies and consultants regularly employ our graduates in all aspects of marine technology. For example, as surveyors, researchers and in policy development.

Continued overleaf.

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

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 with opportunities for our graduates.

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. We have a dedicated website – **www.onshoreandatsea.wordpress.com** – with lots of information on work placements and graduate opportunities.

What You Will Study

Stages 1 and 2: All Marine Technology students study the same topics for the first two years, giving you time to learn fundamental engineering principles in a marine context. This also gives you an excellent opportunity to see where your interests lie before you specialise later in your programme.

To ensure you have a firm foundation in engineering principles we cover topics in core subjects including mechanics, thermodynamics, mathematics and fluid mechanics, which we relate to the broad scope of marine technology.

One of our strengths is that we teach engineering in a marine context right from your very first year, through specialist topics such as: naval architecture, marine engineering, materials in the marine environment and marine mechanics.

Stage 3 and beyond: Core modules are shared by all of our Marine Technology students, to continue to develop your knowledge of the essentials of the subject. You also study more specialist modules specific to your degree choice. These build on your skills and knowledge in areas such as marine structures, naval architecture, hydrodynamics and marine systems.

In Stage 3 you complete a dissertation project focused on your degree specialisation. In Stage 4 you will form part of an interdisciplinary team to complete an extensive group project which challenges your technical and professional skills.

Transfer between marine technology degree specialisms is possible up to the end of the second year (Stage 2).

Transfer from a BEng to one of our MEng degrees is possible up to the end of the third year (Stage 3) if you achieve the appropriate academic standard.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Find out more on pages 30–31.

Marine Technology with Marine Engineering

BEng Honours | H504 | 3 years |

MEng Honours | H501 | 4 years |

Marine engineers focus on the engineering systems that keep a ship or offshore structure running, from the main propulsion machinery to the auxiliary systems including pumps, power, water, air and hydraulic systems.

Marine engineers are increasingly challenged to develop advanced alternative power systems that are eco-friendly, ultra-efficient and reliable.

Our professionally accredited Marine Engineering degrees give you the expert knowledge to design specialist systems demanding the latest technologies.

You first learn fundamental marine technology principles in Stages 1 and 2. In Stage 3 you study specialist modules including: marine engineering; marine engineering design, and dynamic modelling and simulation. You also complete a marine engineering-focused individual project where you can research in depth a subject of your choice.

The MEng degree continues in Stage 4, a further year of study, which deepens your marine engineering skills to Master's level. You take further specialist modules including: ship performance at sea; marine power systems; marine condition monitoring; and marine machinery systems.

In Stage 4 you also work on a final group design project that equips you with technical and professional-standard skills that lead directly to Chartered Engineer status (see Professional Accreditation, page 163).

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.

Our professionally accredited Naval Architecture degrees give you the specialist knowledge to design the latest ships with new and advanced technologies.

You first learn fundamental marine technology principles in Stages 1 and 2. In Stage 3 you study specialist modules including: ship design; marine structures; and ship hydrodynamics.

In Stage 3 you will also complete a naval architecture-focused individual project where you can research in depth a subject of your choice.

The MEng degree includes a further year of study, which deepens your naval architecture skills to Master's level. You take further specialist modules including: ship performance at sea; advanced hydrodynamics; advanced naval architecture; and advanced marine structures.

In Stage 4 you also work on a final group design project that equips you with technical and professional-standard skills that lead directly to Chartered Engineer status (see Professional Accreditation, page 163).

Marine Technology with Offshore Engineering

BEng Honours | H355 | 3 years |

MEng Honours | H356 | 4 years |

Offshore engineers focus on the design and operation of fixed and floating structures which service the offshore energy industry.

Offshore engineers require knowledge of key engineering skills applied to industry-specific problems. They take on some of the most important challenges of today, including the development of offshore renewable energy and ultra-deep water operations.

Our professionally accredited Offshore Engineering degrees give you the specialist knowledge to design the latest technologies for application in shallow and deep-water ocean environments.

You first learn fundamental marine technology principles in Stages 1 and 2. In Stage 3 you study specialist modules including: offshore design; marine structures; and offshore engineering.

In Stage 3 you also complete an offshore engineering-focused individual project where you can research in depth a subject of your choice.

The MEng degree includes a further year of study, which deepens your offshore engineering skills to Master's level. You take further specialist modules including: mooring riser and drilling systems; advanced marine structures; advanced hydrodynamics; and hydrocarbon production and process engineering.

In Stage 4 you also work on a final group design project that equips you with technical and professional-standard skills that lead directly to chartered engineer status (see Professional Accreditation, page 163).

Marine Technology with Small Craft Technology

BEng Honours | H520 | 3 years |

MEng Honours | H524 | 4 years |

Small craft are specialist marine products which often have to perform in the most demanding environments. Hydrofoiling racing yachts, eco-friendly fishing vessels, and the latest search and rescue lifeboats all require specialist thinking with regard to their design and operation.

Small craft form a significant and growing portion of the UK marine industry, and engineers with specialist knowledge are in high demand.

Our professionally accredited Small Craft Technology degrees give you the specialist knowledge to design the latest high-speed and advanced boats with futuristic technologies.

You first learn fundamental marine technology principles in Stages 1 and 2. In Stage 3 you study specialist modules including: small craft design; marine structures; and small craft hydrodynamics.

In Stage 3 you also complete a small craft technology-focused individual project where you can research in depth a subject of your choice.

The MEng degree includes a further year of study, which deepens your small craft technology skills to Master's level. You take further specialist modules including: ship performance at sea; high-speed and advanced craft; advanced hydrodynamics; and advanced marine structures.

In Stage 4 you also work on a final group design project that equips you with technical and professional-standard skills that lead directly to Chartered Engineer status (see Professional Accreditation, page 163).

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

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, 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
- **Choose a vocationally orientated marketing degree** – benefit from case-study-led teaching, project work and a marketing consultancy project in your third year
- **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

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Accounting and Finance	
Agri-Business Management	
Business Management	
Economics	
Food Marketing and Nutrition	
Marketing at Newcastle University London	
Modern Languages and Business Studies	

See page 244 for a full list of degrees by subject.

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 52.

"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

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Marketing BSc Honours*
Marketing and Management BSc Honours*

A levels: AAB. Any subject combinations accepted excluding General Studies. GCSE Mathematics and English (minimum grade B or 6) required if not taken at A or AS level.

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

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 51.

League Table Ranking

The quality of the marketing degrees at Newcastle is recognised with a top 10 ranking in *The Complete University Guide 2017*.

Professional Accreditation

Our Marketing BSc degree and Marketing and Management BSc 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.

Study Abroad

You can study at one of our partner universities in Europe between Stages 2 and 3, through the ERASMUS+ scheme. Explore and choose from experiences in Spain, France, the Netherlands, Germany, Poland and Scandinavia.

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 page 30)
- study abroad, to add an international dimension to your degree (see page 32)
- 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

You can apply to spend a year on an optional work placement between Stages 2 and 3, gaining valuable professional experience. You'll be supported by our dedicated Placement Officer, who works closely with the University's Careers Service to help you to make the most of your skills and to find the best opportunities.

Our current interns are mainly acting as marketing assistants or assistant brand managers, many within large multinational corporations, undertaking projects that 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 include: IBM, Disney, Procter & Gamble, Nissan, Marks & Spencer, Unilever, Accenture, Cummins, GSK, Apple, Barbour, Nike and Microsoft.

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

Marketing

BSc Honours | N500 | 3 years |

This degree combines marketing theory and practical application, with a vocational orientation, preparing you to work in this fast-paced industry.

Marketing identifies, anticipates and satisfies customer needs and is integral to effective business strategy. It fuses psychology, management and consumer behaviour to maximise profit in a global marketplace.

Our professionally accredited degree provides you with up-to-date knowledge of the latest marketing trends.

You will develop the practical skills needed to succeed in this competitive industry, and learn practical topics such as market research methods; marketing communications; and strategic marketing.

Stage 1: We introduce you to core marketing and management knowledge and skills considered essential for a career in business and marketing. These include: consumer behaviour; management and organisation; quantitative techniques for modern business decision making; and business emergence, development and growth in a globalised economy. This Stage is taught in conjunction with our Marketing and Management BSc Honours degree.

Stage 2: You will cover core topics including marketing research methods, marketing communications and strategic marketing. Optional topics cover areas such as: global marketing; sales management and marketing channels; services marketing; economics; enterprise and entrepreneurship; and business Spanish. At Stage 2 you will be presented with a range of optional modules, allowing you to strengthen your knowledge of a particular marketing area or function, advance your understanding of the subject area or develop an area of specialism.

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 167). This extends your degree by a year.

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, brand promotion, cultural and heritage marketing, and direct and digital marketing.

Marketing and Management

BA Honours | NN52 | 3 years |

This degree provides a broad understanding of business concepts and contemporary marketing theory and practice, preparing you for a range of careers in marketing, business and management. It is vocationally orientated, and you will apply theory to practice through practical projects, consultancy and real-life business start-ups.

The marketing component will provide you with the relevant skills, knowledge and capabilities to become a professional marketer. As this degree is professionally accredited, your knowledge will be industry relevant and responsive to the latest marketing trends.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 the core marketing and management knowledge and skills considered essential for a career in business. These include: consumer behaviour; management and organisation; quantitative techniques for modern business decision-making; and business emergence, development and growth in a globalised economy. This Stage is taught in conjunction with the Marketing MSc degree.

Stage 2: You will study core topics including: business and marketing research methods; human resource management; global marketing; and services operations strategy and management. You then choose from a portfolio of optional modules allowing you to strengthen your knowledge of a particular marketing area or function, advance your understanding of the subject area or develop an area of specialism.

Work placement/study abroad (optional): You may choose to spend the year between Stages 2 and 3 on a 12-month placement working in a UK or overseas business or studying abroad at one of our partner universities (see page 167). This extends your degree by a year.

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. You also complete advanced modules in topics such as: management of creativity, design and innovation; direct and digital marketing. The range of optional modules includes: analytical techniques for marketing; electronic business; management in practice; international human resource management; advertising and integrated brand promotion; and career development for final-year students.

Professional accreditation (see page 167) **Work placement** (see page 30) **Study abroad** (see page 32)

Mathematics and Statistics

Our stimulating degrees offer flexibility, research-informed teaching and a state-of-the-art learning environment. You can tailor the combination of pure mathematics, applied mathematics and statistics content to suit your interests. Our cutting-edge topics are linked closely to our research – such as quantum mechanics and biostatistics – letting you explore new and exciting areas of study. You'll be able to boost your employability thanks to optional work placement years, Career Development Modules, and our strong emphasis on graduate work 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
- **Boost your CV with a work placement** – apply for an optional year-long work placement to gain valuable work experience
- **Enjoy high-tech teaching** – we use IT to support teaching, preparation and revision, including computer-based exercises with problem-solving tutorials
- **Join a supportive subject area** – including small group teaching and a buddy scheme to help you make the transition to university
- **See where your interests lie** – our integrated teaching programme allows transfer between our degrees if your interests change
- **Enhance your employability** – develop transferable employability skills including project management, 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

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Accounting and Finance	
Economics	
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Geographic Information Science	
Physics	
Surveying and Mapping Science	

See page 244 for a full list of degrees by subject.

League Table Ranking

Mathematics and Statistics at Newcastle achieved an impressive 97 per cent overall student satisfaction, ranking us 5th in the UK in the *National Student Survey 2016*. We also rank 11th overall in the UK for research (*Research Excellence Framework 2014*).

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All Mathematics and Statistics BSc Honours degrees, pages 171–172*

A levels: AAA or A*AB including at least grade A in Mathematics and excluding General Studies OR AAB or A*BB including at least grade A in Mathematics and excluding General Studies AND including one A level from: Further Mathematics, Biology, Chemistry, English Literature, Geography, History, Physics and Modern/Classical Languages or grade 2 in any STEP paper.

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 OR AAB or A*BB including at least grade A in Mathematics and excluding General Studies AND including one A level from: Further Mathematics, Biology, Chemistry, English Literature, Geography, History, Physics and Modern/Classical Languages or grade 2 in any STEP paper.

International Baccalaureate: A minimum of 37 points with Mathematics grade 6 or above at Higher Level.

Mathematics and Psychology BSc Honours

A levels: AAA–ABB including grade A in Mathematics and excluding General Studies.

International Baccalaureate: A minimum of 35 points, with three subjects at Higher Level grade 6 or above. At least two sciences at Higher Level are preferred. Mathematics or Mathematical Studies to be offered at Standard Level grade 5 if not offered at Higher Level. At least one third of all subjects taken must be science/mathematics.

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 48.

Professional Accreditation

Our statistics degrees are professionally accredited by the Royal Statistical Society.

Our Mathematics and Psychology BSc Honours degree is accredited by the British Psychological Society (BPS).

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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:

- Our Bachelor of Science (BSc) degrees are three years long
- Our Master of Mathematics (MMath) or Master of Mathematics and Statistics (MMathStat) degrees are four years long. They're known as Integrated Masters' degrees because they involve study at postgraduate level in Stage 4

The BSc and Integrated Masters' degrees are broadly similar for the first three years. This means transfer is possible between them from the end of Stage 1 to the start of the Stage 3 Semester 2 exams, if 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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

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 or college. Some of the topics will be familiar and others will be completely new.

Some topics will be important in your future career and others will have wider applications and develop key skills that are sought after by employers, such as thinking logically, problem solving and constructing clear arguments.

Our degrees incorporate a common set of core modules for the first two years. These cover the main areas of pure mathematics, applied mathematics, algebra, probability and statistics.

In Stage 1 these include: analytical geometry; foundations of and modelling with differential equations; number systems; and linear algebra.

In Stage 2 these include: vector calculus; differential equations; fluid dynamics; algebra; linear algebra; complex variable; statistical inference; Bayesian inference; stochastic modelling; and mathematical computing.

Students studying mathematics and statistics as a single subject will spend about five-sixths of their time at Stage 1 studying core modules, and most of their time at Stage 2.

Students studying mathematics and statistics alongside another subject will study fewer topics at each Stage, focusing more on applied mathematics and statistics, to accommodate modules related to their complementary subject.

Accounting and Mathematics

BSc Honours | NG41 | 3 years

You can find a detailed description and entrance requirements in the Accounting and Finance section on page 58.

Economics and Mathematics

BSc Honours | GL11 | 3 years

You can find a detailed description and entrance requirements in the Economics section on page 125.

Mathematics

BSc Honours | G100 | 3 years |

MMath Honours | G103 | 4 years |

Mathematics and Statistics

BSc Honours | GG13 | 3 years |

MMathStat Honours | GGC3 | 4 years |

Statistics

BSc Honours | G300 | 3 years |

All students receive the same introduction to core mathematics and statistics topics for the first two years (Stages 1 and 2). See What You Will Study, left.

These degrees provide a high level of flexibility, outside your core modules, to tailor the combination of pure mathematics, applied mathematics and statistics content to suit your interests. Your degree title will reflect your balance of mathematics and statistics modules in Stage 3.

You can also explore exciting areas of mathematics and statistics, linked to the research expertise of our staff, such as cryptography, turbulence, quantum mechanics, Bayesian inference, and stochastic financial modelling.

Our MMath and MMathStat degrees take this further with a year of advanced study in Stage 4 that draws heavily on our research expertise. You will also experience the excitement of discovery for yourself with a substantial research project that accounts for a third of your time.

All students have the opportunity to apply for a year-long work placement between Stages 2 and 3. This extends your degree by a year.

There is also flexibility (mainly at Stage 1) to choose topics from other areas of the University, for example, accounting, music, a foreign language or another science.

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 and is professionally accredited by the British Psychological Society. You benefit from expert teaching in two subject areas and receive outstanding support to help you settle in to your studies.

You study core topics in mathematics and statistics, see What You Will Study, page 171. This is complemented at each Stage with topics from our Single Honours degree in Psychology.

For example, in psychology you will explore why humans and animals think and behave as they do, with topics including cognitive psychology and developmental and social psychology. In mathematics, you will develop a thorough grounding in topics and techniques such as differential equations and probability. You develop your communication and study skills by working in small group tutorials on a guided research investigation in psychology.

At Stage 3 you have a high level of flexibility to choose from topics linked to our current research. In mathematics and statistics these include Bayesian statistics and statistical inference, and in psychology they include abnormal psychology and psychiatry, personality and eating disorders, and forensic psychology. You can also choose optional modules to develop your own project topic or focus on your own career development.

All students have the opportunity to apply for a year-long work placement between Stages 2 and 3. This extends your degree by a year.

Mathematics with Finance

BSc Honours | G1N3 | 3 years |

All students receive the same introduction to core mathematics and statistics topics for the first year, along with core applied mathematics, statistics and mathematical computing in the second year. See What You Will Study, page 171.

These degrees balance a broad foundation in mathematics and statistics with management and accounting topics from Newcastle University Business School.

This equips you with the knowledge and skills to apply mathematics and statistics in the business world, and is excellent preparation for a career in banking and finance.

You spend two thirds of your time at each Stage studying topics in mathematics and statistics. Outside your core modules, we place particular emphasis on mathematics topics with financial applications such as stochastic financial modelling. You complement this with accountancy and corporate finance topics such as: interpreting company accounts; corporate finance; and international finance management, providing a broad understanding of the finance of the business world.

All students have the opportunity to apply for a year-long work placement between Stages 2 and 3. This extends your degree by a year.

One third of your modules at Stage 3 is optional, giving you the chance to follow areas of particular interest through topics that are closely linked to the research expertise of our staff.

Mathematics with Management

BSc Honours | G1N2 | 3 years |

All students receive the same introduction to core mathematics and statistics topics for the first year, along with core applied mathematics, statistics and mathematical computing in the second year. See What You Will Study, page 171.

This degree equips you with the knowledge and skills to apply mathematics and statistics in the business world. It integrates the study of mathematics and statistics with the study of the major processes of business management, delivered by Newcastle University Business School.

You spend two thirds of your time studying mathematics and statistics at each Stage.

You complement this with management and accounting topics such as: general management theory and practice; interpreting company accounts; human resource management; plus key business topics from the accounting perspective, such as marketing, finance, competition, merger/demerger, and ethics and corporate governance.

Two thirds of your modules at Stage 3 are optional, giving you a lot of freedom to follow areas of particular interest, through topics that are closely linked to the research expertise of our staff.

All students have the opportunity to apply for a year-long work placement between Stages 2 and 3. This extends your degree by a year.

Professional accreditation (see page 170) **Work placement** (see page 30)

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 so you learn the very latest developments in the field, preparing you for your professional career – see page 174
- **Experience engineering in practice** – through study visits to factories typically including Greggs, Nestlé, Flymo, Tyne and Wear Metro, and Caterpillar
- **Enjoy teamwork and competitions** – take part in the international Formula Student competition to design, build and race a single-seater racing car
- **Develop professional skills** – 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 through practical experience with our high-quality facilities and equipment, including 3D motion capture and robotics equipment – see page 175
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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Chemical Engineering	
Civil Engineering	
Electrical and Electronic Engineering	
Foundation Year	
Marine Technology	
Physics	

See page 244 for a full list of degrees by subject.

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

All Mechanical Engineering MEng degrees, pages 176–178

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 or 6) 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 176–177

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 or 6) 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 49 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 49 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

All 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, such as an approved Master's degree.

You have the option to transfer between the various MEng degrees, and also from a BEng to one of our MEng degrees if you achieve the appropriate academic standard, at the end of Stage 2 (second year).

Our Research Centres

Your degree is kept up to date by the research discoveries of our staff and the work of our research centres. We have internationally recognised expertise in bio-engineering, railway systems, machine design and high-power drives.

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
- Sir Joseph Swan Centre for Energy Research, exploring alternative energy

Our Facilities

You'll benefit from studying in high-quality facilities that replicate the professional environment. Our facilities and equipment include:

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

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**

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, among others.

We take particular care to introduce you to the engineering industry by using real examples, industrial projects, factory visits and even mock interviews. 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 £26,500 (Destinations of Leavers of Higher Education survey 2014–15). 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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

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

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)
- 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 involves:

- lectures and tutorials (10–15 hours per week)
- laboratory activities (3 hours many weeks)
- computing and 3D CAD (3 hours many weeks)
- engineering design projects (3 hours per week)
- design–make–test projects (3 hours some weeks)
- tutorials with personal tutor (1 hour many weeks)
- study outside class hours (10–20 hours per week)
- workshop sessions (30 hours)
- industrial visits, interviews, business games, management (30–40 hours)

Stage 3: You balance general engineering topics (such as instrumentation and drives, computational modelling, design for industry, and managing engineering operations) with specific advanced topics relevant to your particular chosen course.

You work in small teams on projects based in local industry, working with and in some of the North East's leading engineering companies. You also complete an extended piece of work on a topic selected from a wide range of projects. This is aimed at developing your capabilities as an engineer in areas such as project planning and data analysis. You also undertake a major project.

Stage 4 (MEng only): You study advanced specialist topics and complete another major project. You also take part in an industrially relevant team project designed to develop your skills as a professional engineer, including project management and application of design methodology to engineering problems.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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, left.

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, opposite.

At later Stages, typical specialist topics include: materials degradation; advanced manufacturing technology; and mechanical power transmissions.

Examples of recent final-year projects include: development of excavator lifting capacity software, and design of improved rail vehicle suspension and of an auto-coupler remover.

Sarah
Mechanical Engineering MEng Honours

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, opposite.

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.

"The thing I have enjoyed the most about my course has been the teamwork and comradery that comes from doing such an intense and full time course like engineering. I really enjoy the fact that my course has allowed me to learn skills and knowledge that have made me very employable. As well as this the members of staff have been great and always very supportive throughout the degree."

Professional accreditation (see page 174) **Work placement** (see page 30)

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

Mechanical Engineering with Biomedical Engineering

MEng Honours | H3H8 | 4 years |

The design and manufacture of artificial joints, the effect of wear and tear on biomaterials used in the body, and how engineering can help humans and animals to stay physically mobile for longer are all the concern of the bioengineer.

Biomedical engineering embraces a wide range of engineering and medical techniques, including biomechanics, biotribology, biomaterials, and biosensors. Developments in this field include the design and investigation of new artificial joints, new materials to assist in the repair of soft tissues, and the effectiveness of rehabilitation treatment.

This degree will equip you to work in a range of jobs in the health sector or the industries supporting it.

All mechanical engineering students receive the same introduction to core mechanical engineering skills and knowledge for the first two years (Stages 1 and 2). See What You Will Study on page 176.

At later Stages, typical specialist topics include: biomedical engineering; biomaterials and tissue engineering; BioMEMS; and design for human–systems integration.

Examples of recent final-year projects include: total joint replacements – design of test rigs; investigation of failed prostheses; tribology – wear testing of biomaterials in joint replacements; and medical engineering – bluntness of surgical tools.

Mechanical Engineering with Energy

MEng Honours | H3H2 | 4 years |

The worldwide demand for energy is increasing, and there is pressure on the energy sector to meet that demand in a way that is secure, affordable and with limited impact on the environment.

This degree responds to these challenges by combining a solid base in mechanical engineering with knowledge of different energy technologies and design of energy systems.

The combination of a mechanical engineering background with an energy specialisation ensures that graduates have a range of career prospects in the energy sector and in renewable energy in particular.

All mechanical engineering students receive the same introduction to core mechanical engineering skills and knowledge for the first two years (Stages 1 and 2). See What You Will Study on page 176.

At later Stages, typical specialist topics include: photovoltaics and geothermal energy; energy management; renewable heating and cooling; and energy storage.

Final-year projects might include the likes of: designing a wind-hydro supply scheme for off-grid applications; water desalination using concentrating solar power in the Middle East and North Africa; or energy storage using second-hand electric vehicles batteries.

Mechanical Engineering with Mechatronics

MEng Honours | H3H6 | 4 years |

Mechatronics represents a fusion of electrical, electronic, mechanical and software engineering. It combines precision engineering, automatic control and real-time computing for the design of products and processes in an interdisciplinary engineering environment. The result is some of the most innovative products to hit the market, such as smartphones, car stability control and robots.

All mechanical engineering students receive the same introduction to core mechanical engineering skills and knowledge for the first two years (Stages 1 and 2). See What You Will Study on page 176.

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

Our degrees will equip you with a rigorous academic understanding of the media and culture in all their forms, enabling you to critically and creatively engage with the world around you. You'll also develop a wealth of professional skills designed to enhance your employability in this rewarding and competitive field. You'll have the opportunity to study film-making, journalism, PR, multimedia technologies and more. Our state-of-the-art CultureLab facilities and an active on-campus student media scene enhance your practical experience. We are consistently ranked one of the best in the UK by the major league tables and we're delighted to achieve high satisfaction scores from our students year-on-year.

- **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 media industry in the city, fuelled by skilled graduates
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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Film Practices BA Honours	181
Journalism, Media and Culture BA Honours	182
Media, Communication and Cultural Studies BA Honours	182
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 244 for a full list of degrees by subject.

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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, Communication and Cultural Studies experience at Newcastle is recognised by consistently high rankings in the major league tables. We are ranked 1st in the UK in *The Times/Sunday Times University Guide 2017* and *The Complete University Guide 2017*. We also achieved a very impressive 91 per cent overall student satisfaction score in the *National Student Survey 2016*, ranking us in the top 20 in the UK.

Over 80 per cent of our research is 'world-leading' or 'internationally excellent' *(Research Excellence Framework 2014)*.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Find out more on pages 30–31.

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.

You will develop a broad commercial and cultural awareness of the media and creative industries, through contact with 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.

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.

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 learn to use digital technologies creatively and 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. In Stage 3 you 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 is a key feature of the degree. You will also be able to take modules that 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, our Film Practices degree extends beyond documentary with an additional focus on short fiction and experimental film-making, 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. In Stage 3 you make two films: a self-shot short film and a dissertation film. You also develop your understanding of the film industry, online distribution and other aspects of independent film production, such as distribution and dissemination.

The film practice elements will be complemented by a continuing engagement with the history of world cinema and film theory, all underpinned by regular film screenings. The integration of film theory and practice is a key feature of the degree. You will also be able to take modules that will contextualise your film practice within the thriving but competitive independent film sector.

Journalism, Media and Culture

BA Honours | P500 | 3 years |

If you're interested in becoming a journalist or communications professional, this degree will give you the practical skills and academic knowledge you need. You'll develop journalistic writing skills and learn to communicate across a wide range of platforms and media. You'll also gain a firm academic foundation in the issues and current debates in media and cultural studies.

Stage 1: We introduce you to the principles and practices of multiplatform journalism, focusing on the skills needed to master relevant multimedia technology. You also start developing your writing skills for journalism. You explore the role of media and culture in contemporary society, and their impact on the formation of individual and group identity. You learn about researching journalism and media in a research module that will continue throughout your degree. A wide range of optional modules allows you to tailor the degree to your particular interests, such as film practice and film studies, public relations and marketing.

Stages 2 and 3: You continue expanding your skills in journalism, spanning print, magazine, online and elements of broadcast. You learn about regulation and legislation relevant to the media industries, and the ethical norms and practices for journalists.

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. You'll answer the question 'what is culture?' by examining how it intersects with gender, sexuality, race, class and nation, through a study of seminal texts. You also take a course in web-based publishing and a module on social research, which introduces you to research methods in media and cultural studies. A third of your topics are optional, covering a broad choice of areas such as professional communication, journalism, film-making and marketing.

Stages 2 and 3: We introduce you to further theoretical perspectives on media and culture. You also focus on the whole process and practice of research in studying media and culture, with a particular emphasis on data collection techniques and how to write a research proposal. You have the chance to put these skills into practice in Stage 3, undertaking a dissertation that focuses on a specific area of media, communication and culture.

A wide range of optional topics at both Stages allows you to focus in more depth on areas of particular interest to you, such as: television studies; new media; public relations; political communication; advertising; marketing and business studies; journalism and magazine publishing; celebrity culture; cultural theory and representation; 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 throughout 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 our 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

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Medicine and Surgery (Accelerated Programme) MB BS	187
You may also be interested in...	
Biomedical and Biomolecular Sciences	
Chemistry	
Dentistry	
Nutrition and Food	
Psychology	
Speech and Language Sciences	

See page 244 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

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Medicine and Surgery MB BS

A levels: AAA including Chemistry and/or Biology at A or AS level and excluding General Studies and Critical Thinking. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. If only one of Biology and/or Chemistry is offered at A or AS level, the other should be offered at GCSE grade A or 7 (or Dual Award Science grade A or 7).

Once the academic criteria have been met, academic achievement is not considered further in subsequent parts of the application process eg additional A levels or A* results or additional GCSE results are not considered.

International Baccalaureate: A minimum of 38 points including grade 5 in all subjects with Higher Level grade 6 in Chemistry or Biology. Combinations including two Sciences, Mathematics and English are desirable.

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 complete an Extreme Extenuating Circumstances form and sufficient supporting evidence must be provided from your school or GP. Please see MB BS Admissions Policy 2018 (online) for more information.

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; and TB.

Newcastle University follows the Medical Schools Council protocol on blood-borne viruses. During the programme students will be asked to be tested for hepatitis B, hepatitis C and HIV. All aspects of a student's medical record will be bound by the same duty of confidentiality as for any doctor–patient interaction and informed by the same ethical guidance. The status of any individual in respect of blood-borne viruses will not be a factor in the admissions selection process and will not prevent them completing undergraduate medical training.
For full detailed admissions information see:
www.ncl.ac.uk/undergraduate/degrees/a100
www.ncl.ac.uk/undergraduate/degrees/a101

League Table Ranking

Medicine at Newcastle is consistently one of the most highly regarded medical degrees in the UK. The excellence of our programmes has been confirmed by the General Medical Council (GMC). We rank:

- among the best British universities for medicine in *The Times/Sunday Times University Guide 2017* and *The Complete University Guide 2017*
- 7th in the UK for overall student satisfaction, with a score of 95 per cent in the *National Student Survey 2016*
- in the top 150 universities in the world in the *QS World University Rankings by Subject 2016*

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).

Athena SWAN Award

In 2015, we achieved an Athena SWAN Bronze Award for our commitment to the recruitment, retention and progression of women in science.

Programme Organisation

A100 is a five-year degree and is appropriate for students post-A level or equivalent. There are 318 places available.

A101 is an accelerated four-year degree for applicants who already have a first degree or relevant experience (see Entrance Requirements, opposite). There are 25 places available.

Both A100 and A101 are fully integrated courses. The first two years for A100 (and first year of A101), though largely university-based, are case-led. Clinical skills and professionalism are taught and assessed from the start, laying the foundations of clinical practice. All A100 and A101 students then join a common pathway for the final three years of training delivered in partnership with the NHS.

All graduates receive an MB BS degree from Newcastle University and are normally eligible to apply for provisional registration with the General Medical Council (GMC).

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 2017.

Newcastle University is committed to broadening access to medical education and training and conform to a fair access admissions policy, which is reviewed annually.

Applications are welcomed from candidates with a diverse range of backgrounds. Applicants applying with non-standard qualifications should contact mbbs.admissions@ncl.ac.uk for advice.

For further information on admissions to our medical degrees 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 want to pursue a career in academic medicine after they qualify. The options for intercalated study at Newcastle include:

- joining the third year of any of our Biomedical and Biomolecular Sciences BSc Honours degrees (see page 80) 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 General Medical Council (GMC) with a licence to practise, subject to demonstrating to the GMC that your fitness to practise is not impaired. Once you have successfully completed a year as an F1 doctor in a two-year Foundation Programme, you should gain full registration.

This is followed by a further year of generic training. On successful completion of your second year, all doctors will have achieved the same basic competencies before going on to select their specialty of choice (**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.

For further information on the GMC registration and National Examinations, visit **www.gmc-uk.org/doctors**

International Students

You are currently permitted to undertake the full Foundation Programme, ie the first two years following graduation (see Careers, left), 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: The first two years of this five-year programme provide a foundation for more clinically based training in the last three years.

The curriculum is integrated in nature and is structured around a series of clinical cases and core presentations to help contextualise learning. Patient contact and early experience in clinical settings reinforce teaching of:

- normal and abnormal structure and function
- ethics
- social and behavioural sciences
- clinical and communication skills
- public health
- professional behaviour

In addition to training in clinical skills and visits to general practice and hospitals throughout Years 1 and 2, there is a dedicated block of clinical experience towards the end of Year 2, designed to ease transition into the clinical learning environment.

All students from the A100 and A101 programmes are integrated into a single common pathway for the final three years of training.

Years 3 to 5: During Years 3 to 5 you are allocated to and based in one of four regional Clinical Base Units (which may involve living away from Newcastle – see below). Base Units include primary, secondary and community-based organisations such as palliative care centres.

During Year 3, you build on the foundations of clinical practice developed in Years 1 and 2 by undertaking a junior assistantship and clinical rotations. These provide you with experience in a range of specialties including: child and adolescent health; mental health and women's health. You will also spend time throughout Year 3 in general practice. At the end of Year 3, you will undertake a Student Selected Component (SSC) in which you can choose an area of medicine to gain more experience in.

Year 4 begins with a semester-long block of learning and teaching focusing on clinical sciences, investigative medicine, therapeutics, prescribing and advanced communication skills. A second SSC also runs throughout Semester 1, during which you will have weekly exposure to your chosen area of medicine. In Semester 2, you undertake clinical rotations in medicine and surgery, as well as focusing on long-term conditions. At the end of Year 4 you have the opportunity to undertake an eight-week elective period, giving you the opportunity to study medicine almost anywhere in the world.

Final year (Year 5) is focused on preparing you for becoming a Foundation doctor. In Semester 1, you will undertake a clinical rotation in primary care along with assistantships in mental health, child and adolescent health, and women's health, where you will be embedded within a healthcare team. In Semester 2, there is a block of teaching focusing on acute care and anaesthesia and three further assistantships in medicine, surgery and primary care.

You should note that most students are required to travel to their Base Unit. You will not normally be attached to the same Base Unit for Year 3 as you are for Years 4 and 5. Making use of the clinical and community settings throughout the region enables students to gain a range of learning experiences in different organisations. This is particularly the case in the final three years of the programme. Although a small bursary is currently provided towards the cost of travel, applicants should be aware that this is only a contribution towards the overall costs that may be incurred. Those allocated to the Tees Base Unit are strongly encouraged to live on Teesside for the duration of their study at the Base Unit.

Medicine and Surgery

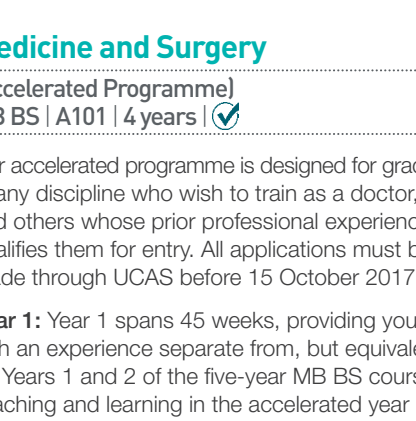
(Accelerated Programme)
MB BS | A101 | 4 years | ✓

Our accelerated programme is designed for graduates of any discipline who wish to train as a doctor, and others whose prior professional experience qualifies them for entry. All applications must be made through UCAS before 15 October 2017.

Year 1: Year 1 spans 45 weeks, providing you with an experience separate from, but equivalent to, Years 1 and 2 of the five-year MB BS course. Teaching and learning in the accelerated year is organised into small study groups and is structured around the core subject areas covered in Years 1 and 2 of the five-year degree (see opposite).

Years 2–4: Years 2–4 of the Accelerated programme are identical to Years 3–5 of the five-year degree (see left).

> 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

✓ **Professional accreditation** (see page 185)

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

Modern Languages

You will have the opportunity to study an impressive range of East Asian, European and Latin American languages and countries at Newcastle. You'll enjoy flexibility to combine them to suit your interests and choose from a wide range of language and cultural modules. Expert teaching and high-tech facilities support your language learning – including our state-of-the-art language laboratories and award-winning Language Resource Centre – before you spend a year working or studying abroad in a country where your language is spoken. Opportunities such as our Student Ambassador Scheme and Real Translation programme (translating for local businesses) help you get your career off to the best start.

- **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

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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 244 for a full list of degrees by subject.

For Single Honours
French or German, see Modern Languages BA Honours (page 190)

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Chinese Studies or Japanese Studies BA Honours

A levels: ABB–BBB. GCSE grade B or 6 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 or 6). Where a candidate wishes to study a single language from beginners' level and is not studying an A level in a language then grade B or 6 in a language at GCSE is required.

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 2017*. We also rank 6th in the UK for research power *(Research Excellence Framework 2014)*.

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. These prepare you to be an extremely versatile, flexible and adaptable employee with a global outlook, which is 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
- combine the above, 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.

Continued overleaf.

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
- support to find a work placement
- a Tandem Learning Scheme, to practise conversation in your language(s) and make contacts in the country before you travel
- 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. Blog posts that you complete via the web-based e-portfolio system will help you reflect on your linguistic, personal and professional development.

What You Will Study

We design our degrees so that you will develop excellent linguistic skills and near-native fluency in your chosen language(s). For each language you're studying, you will have small-group practical language classes to develop your reading, writing, listening and speaking skills. These are normally taught in our state-of-the-art language laboratories by a native or near-native speaker. 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 classes, you can choose from a broad range of topics in areas like contemporary society, cultural studies, history, politics, anthropology, film and media, literature and linguistics. Our lecturers are all engaged in research on the countries, continents and cultures they specialise in, which means your classes will be informed by their most recent research findings.

We also offer career-enhancing translation and liaison interpreting in French, German and Spanish in your final year, as well as in Chinese and Japanese for students who take the advanced level final-year course.

If you combine a language with another subject, or combine two or three languages, you will study each subject equally in the first year. From the second year onwards, you have flexibility over how to combine them, either continuing to study them equally or moving to a major/minor combination in later years.

Modern Languages

BA Honours | T901 | 4 years |

Our Modern Languages BA Honours degree gives you the opportunity to study a wide range of languages and gain an in-depth insight into the countries where your chosen languages are spoken.

This degree is the most flexible way of combining your languages. You may study up to three languages from Chinese, French, German, Japanese, Portuguese and Spanish.

All of our languages are available from beginners' level, although you must have an A level or equivalent in at least one of the languages you study.

If you have one language at A level you can:

- study two languages (one at advanced level and one from beginners' level)
- study a single language (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
- continue to study one language at advanced level and choose a second from beginners' level
- continue to study both languages at advanced level and study a third from beginners' level

There are also optional beginners' modules available in:

- Catalan, Quechua or Italian for students of Spanish
- Catalan or Italian for students of French
- Dutch for students of German

Please note that, although this degree is very flexible, there are some restrictions. You cannot study Chinese and Japanese together and you cannot study more than one beginners' language.

For more information about what you will study each year and during your year abroad, see pages 189–190.

Work placement (see page 189) **Study abroad** (see page 189)

Modern Languages and Business Studies

BA Honours | TN92 | 4 years |

Graduates with this degree will offer potential employers a winning combination of business expertise and language skills. This degree is run jointly by the School of Modern Languages and Newcastle University Business School. It combines the study of one or two languages with the principles and practice of business management.

Your language choices are Chinese, French, German, Japanese, Portuguese and Spanish. You can choose to study one language (either from beginners' level or post-A level) or two languages (in which case you must have an A level in at least one of them).

Alongside language modules, you can choose optional modules in the culture and history of the countries where your chosen languages are spoken, or (for French, German and Spanish) the linguistics of your chosen language.

In addition, optional beginners' modules are available: in Catalan, Quechua or Italian for students of Spanish; in Catalan or Italian for students of French; and in Dutch for students of German.

Your business management modules include topics such as organisational behaviour, marketing, human resource management, introductory economics, interpreting company accounts, and enterprise and entrepreneurship.

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 pages 189–190.

> Modern Languages at Newcastle is amazing. Not only the quality of the teaching and the great layout of the course, but outside of class there are so many amazing activities and societies to aid your language learning.

Marcus
Modern Languages BA Honours

Modern Languages and Linguistics

BA Honours | QT19 | 4 years |

This degree is run by the School of Modern Languages with the School of English Literature, Language and Linguistics. It combines the study of foreign languages with linguistic theory, to explore how language works.

You spend two thirds of your time studying two languages. You choose from Chinese, French, German, Japanese, Portuguese and Spanish (with at least one in French, German or Spanish at post-A level or equivalent).

In addition, optional beginners' modules are available: in Catalan, Quechua or Italian for students of Spanish; in Catalan or Italian for students of French; and in Dutch for students of German.

You spend the remaining third of your time studying linguistics, concentrating on the structure, history and use of both the English language and your foreign languages.

Your linguistic topics cover a wide range of areas within linguistics, such as syntax, phonology, morphology, semantics and pragmatics, sociolinguistics, historical linguistics and language acquisition.

For more information about what you will study each year and during your year abroad, see pages 189–190.

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

Modern Languages, Translation and Interpreting

BA Honours | R9Q9 | 4 years |

This degree offers the opportunity to study two modern foreign languages, and specialise in translation and interpreting (T&I) in French, German or Spanish. One third of the programme is devoted to T&I, and two thirds to other aspects of the languages you are studying.

The degree aims to provide a firm foundation for a career as a freelance translator or interpreter for agencies and commercial clients in the private or public sectors, and for work in international organisations.

There are two routes through the degree.

If you have A level (or equivalent) in two of French, German and Spanish, then you follow pathways in Translation and Interpreting in both languages.

If you have A level (or equivalent) in one of French, German or Spanish, then you follow a Translation and Interpreting pathway in that language. You also study another language from beginners' level (from Chinese, French, German, Japanese, Portuguese or Spanish). This second language will enable you to be qualified for postgraduate study of translation and interpreting or for other careers.

For more information about what you will study each year and during your year abroad, see pages 189–190.

Chinese Studies or Japanese Studies

BA Honours | TT12 | 4 years |

With the steady rise of China as an economic and political power, and the continuing diplomatic and economic importance of Japan, this degree enables you to take advantage of exciting new career opportunities emerging from Britain's growing political, business and cultural links with East Asia.

Whether you choose to study (Mandarin) Chinese or Japanese, you will learn to communicate with native speakers, orally and in writing, from day one.

At Newcastle, we provide two entry levels: one for those who are beginning from scratch, and a higher route for those who have a GCSE or A level (or equivalent).

You spend your third year at a university in China (Beijing, Shanghai, Chengdu, Hainan Island, Xiamen) or Japan (Tokyo, Akita, Osaka, Kyoto, Hiroshima, Sapporo 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 pages 189–190.

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 have the opportunity to achieve a high level of spoken and written Spanish, and to develop Portuguese from beginners' level.

The School of Modern Languages is home to the Centro de Língua Portuguesa (Instituto Camões), a major regional and national resource, sponsored by the Portuguese government and supporting the teaching of Portuguese.

You complement your language learning with a broad choice of research-informed modules relating to the vibrant cultures, societies and histories of Spain and Latin America. These include beliefs and social customs, languages such as Catalan and Quechua, art and music, and the survival of indigenous people.

For more information about what you will study each year and during your year abroad, see pages 189–190.

Music

Music at Newcastle recognises and celebrates the individuality of its students. Our degrees offer a high level of flexibility and choice so you can choose topics that build your transferable skills whilst helping you develop into the musician you want to be. There are numerous opportunities to benefit first hand from the breadth of our music and approaches we take to: composition (in the widest sense); performance (from medieval music to contemporary practices from around the world); and research (in cultural theory, ethnography, policy, history and more).

- **Study with world-leading composers, performers and scholars** – develop your skills under the expert guidance of our teachers, who include leading professional musicians
- **Receive one-to-one tuition from internationally recognised musicians** – including members of one of Europe's most exciting orchestras, the Royal Northern Sinfonia
- **Enjoy excellent performance opportunities** – including weekly student and professional concerts on campus, to showcase your skills as a solo performer and in a range of staff and student led ensembles and bands
- **Tailor your degree to suit your interests** – choose modules to suit your interests from across our suite of degrees, which spans a wide range of musical styles and approaches
- **Benefit from world-leading research** – your module choice is informed by the expertise of research-active staff at our International Centre for Music Studies (ICMuS)
- **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
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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You may also be interested in...	
Combined Honours (Music, plus up to two other subjects)	

See page 244 for a full list of degrees by subject.

"The facilities are amazing, offering many large rehearsal rooms, a fabulous performance hall and professional-grade equipment."

Simon
Music BA Honours

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Contemporary and Popular Music BA Honours

A levels: ABB including Music, Music Technology, or another music-related subject or BBB including Music plus Grade 8 Associated Board (Performance), Rock School or equivalent. Applicants should be practitioners in a type of contemporary or popular music. If A levels do not include Music or a relevant music-related subject, an offer of ABB plus Grade 8 Associated Board (Performance), Rock School or equivalent performance experience may be considered.

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.

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: 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 (Performance) 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. If A levels do not include Music, an offer of ABB plus Grade 8 Associated Board/Trinity (Performance) may be considered.

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.

> The modules are all very varied and interesting, and I really feel like I can engage in all my lectures. I like that we receive one-to-one tuition for our chosen instruments, meaning it's a more personal experience and we can all learn at our own pace.
>
> **Adi,** Contemporary and Popular Music BA Honours

Work placement (see page 30) **Study abroad** (see page 32)

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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 risktaking. 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 history of music and into the 20th and 21st centuries. They consider world musics, investigate contemporary musical materials, and help you improve as a performer and as a composer (in both notated and electro-acoustic forms).

Stage 2: You can study a broad range of historical, cultural and practical options and have the freedom to determine the balance between these different strands. These elective modules cover areas including contemporary composition, issues in popular music culture, the music of the Southern States, Indian music, and installation/art musics. There are also modules that help you develop as a creative musician and others that explore the historical and cultural areas of contemporary and popular musics.

You may choose to spend a year abroad in a partner institution between Stages 2 and 3. This comes with a reduced fee and extends your degree to four years.

Stage 3: You complete a major specialist study, which could be: an original composition; a creative project; a performance; or a dissertation/project on an area of interest which you hope to focus on in your life and work after leaving University. You may also take a minor study in a second area of specialism.

Continued overleaf.

You choose the remaining balance of modules from a range of historical, cultural and practical options offered by the world-leading research-active staff at our International Centre for Music Studies (ICMuS). These cover topics including: advanced salsa performance; 20th-century musics and nationalism; music and AIDS; music and policy; music in Early Modern England; and vocational studies such as music enterprise and teaching music in schools.

Folk and Traditional Music

BA Honours | W344 | 3 years |

This degree is a unique programme that offers the opportunity to study the traditional music and song of England, Scotland, Wales and Ireland. Performance is important throughout the degree but you will also study the social and cultural context of traditional and folk music and how music helps to construct identity and culture. National and international artists teach as regular and guest tutors on this degree.

As you progress through the degree you will have increasing freedom to choose modules to fashion your studies according to your aspirations. Our partnership with Sage Gateshead is a strong feature of the course, with some of the teaching taking place there, as well as all the final-year performance recitals. Our students also perform at Sage Gateshead as part of the series 'Future Traditions'.

Stage 1: The first year lays the foundation for understanding folk and traditional music in both performance and scholarship. You 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 ethnomusicology, through the music of the Southern States, to folk music studies.

In the second semester, a popular option is to spend a semester abroad in one of our partner institutions, such as the Sibelius Academy in Helsinki or the Irish World Academy of Music and Dance in Limerick. Alternatively, you may choose to spend a year abroad in a partner institution between Stages 2 and 3. This comes with a reduced fee and extends your degree to four years.

Stage 3: You complete a major specialist study in an area of your choice: this could be performance, composition, a dissertation or project. You may also take a minor study in a second area of specialism.

You choose the remaining balance of modules from a range of historical, cultural and practical options offered by the world-leading research-active staff at our International Centre for Music Studies (ICMuS). These include songs and struggle; 20th-century musics and nationalism; vocational modules covering teaching music in schools and music enterprise; and further studies in folk ensemble work.

Music

BA Honours | W300 | 3 years |

BMus Honours | W304 | 4 years |

These are broad-based music degrees that offer a solid grounding in Western art music practices alongside opportunities to study contemporary, world, traditional and popular musics. They aim to develop accomplished musicians and well-rounded graduates with a balance between musical and academic training. They both follow the same study programme, except that BMus students spend their third year abroad. We have built a high level of flexibility and choice into the course, giving you increasing control over the balance of practical and academic content.

Stage 1: You study a fixed menu of modules that covers historical, cultural, theoretical and creative approaches. Modules range across music history, world musics, music theory and techniques, performance and composition (notated and electro-acoustic).

Stage 2: You choose from a broad range of historical, cultural and practical options, and have the freedom to determine the balance between these different strands. Historical and cultural options include modules on: ethnomusicology; Western music history; and popular, world and folk musics. Practical options include: composition (notated, electro-acoustic, historic techniques and sound art); performance; advanced harmony and counterpoint; practice-based modules in Indian music, early music and new music.

Stage 3 (BA): You have opportunities to conduct independent work in two specialised areas of your choice. You complete a major specialist study, which could be: an original composition; dissertation on an area of interest; instrumental or vocal performance; or extended research project presented in a form other than a dissertation, such as an analysis project, a critical edition, or a stylistic composition project. You may also take a minor specialist study in a second area.

You choose the remaining balance of modules from a range of historical, cultural and practical options offered by the world-leading research-active staff at our International Centre for Music Studies (ICMuS). These cover topics including advanced salsa performance; 20th-century musics and nationalism; music and AIDS; music and policy; music in Early Modern England; and vocational studies such as music enterprise and teaching music in schools.

Stage 3 (BMus): BMus students spend a year abroad studying music at a partner institution. We have links with a number of universities and conservatoires in Europe (Austria, Denmark, Finland, Germany, Ireland, Italy, Spain, Sweden), Canada, North America, South America and Australia. While many of our partner institutions teach in English, some teach in their native language and you may take the appropriate language modules in Stages 1 and 2.

Stage 4 (BMus): You have opportunities to conduct independent work in two specialised areas of your choice. You complete a major specialist study, which could be: an original composition; dissertation on an area of interest; instrumental or vocal performance; or extended research project presented in a form other than a dissertation, such as an analysis project, a critical edition, or a stylistic composition project. You may also take a minor specialist study in a second area of specialism.

You choose the remaining balance of modules from a range of historical, cultural and practical options offered by the world-leading research-active staff at our International Centre for Music Studies (ICMuS). These cover topics including advanced salsa performance; 20th-century musics and nationalism; music and AIDS; music and policy; music in Early Modern England; and vocational studies such as music enterprise and teaching music in schools.

Nutrition and Food

Our degrees incorporate the latest knowledge in diet and human health, consumer behaviour, food marketing and psychology. 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** – most of our degrees are accredited by the Association for Nutrition for fast-track entry as a registered nutritionist
- **Boost your employability with a work placement** – apply to spend a year working in the sector, 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

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Food and Human Nutrition with Placement BSc Honours	200
Nutrition and Psychology BSc Honours	201
Nutrition with Food Marketing BSc Honours	201
Nutrition with Food Marketing with Placement BSc Honours	201
You may also be interested in...	
Agri-Business Management	
Biology and Zoology	
Biomedical and Biomolecular Sciences	
Marketing	
Psychology	

See page 244 for a full list of degrees by subject.

Emily
Food Marketing and Nutrition BSc Honours

"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."

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Food and Human Nutrition BSc Honours
Food and Human Nutrition with Placement BSc Honours

A levels: AAB–ABB 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 or 6) 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.

Nutrition and Psychology BSc Honours

A levels: AAA–AAB including at least one subject with a substantial science or mathematics component from Mathematics, Biology, Physics, Chemistry, Statistics or Economics. Home Economics/Food Technology will be considered instead of Biology if accompanied by Chemistry at AS Level. General Studies not accepted. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. GCSE Mathematics plus a science (both at a minimum grade B or 6) are required.

International Baccalaureate: A minimum of 35 points, with three subjects at Higher Level grade 6 or above. At least two sciences at Higher Level are prefered. 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.

Nutrition with Food Marketing BSc Honours
Nutrition with Food Marketing with Placement BSc Honours

A levels: AAB–ABB including at least one science subject (preferably Biology or Chemistry) but excluding General Studies. Home Economics/Food Technology will be considered instead of Biology. Chemistry is preferred at A/AS level but not essential. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. Mathematics, and Chemistry or Dual Award Science, required at GCSE (minimum grade B or 6) if not offered at A/AS level.

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.

League Table Ranking

The nutrition and food degrees at Newcastle rank 7th in the UK in *The Times/Sunday Times Good University Guide 2017* and *The Complete University Guide 2017* (in the Food Science category). We achieved very impressive 94 per cent overall student satisfaction score in the *National Student Survey 2016*, ranking us in the top 10 in the UK.

Professional Accreditation

Our Food and Human Nutrition with Placement degree and our Nutrition with Food Marketing degree 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 ANutr after their name without undergoing further assessment.

Our Nutrition with Food Marketing degree is also accredited by The Chartered Institute for Marketing (CIM), which gives you the opportunity to gain professional qualifications through the CIM Graduate Gateway.

Our Nutrition and Psychology degree is accredited by the British Psychological Society (BPS).

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 professional experience that will help you stand out from other food graduates in the marketplace.

Our award-winning Careers Service and dedicated placement co-ordinator will provide you with training, such as preparing a CV, applying for jobs and interview practice.

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

UK and EU students may choose to undertake their work placement (see above) 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.

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 | B46D | 3 years |

With Placement 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. You study modules in nutrition and food science, genetics, biochemistry, microbiology, immunology and physiology. You explore current food and nutrition issues as well as the basics of food production and utilisation from primary production to human consumption. You'll visits factories and kitchen outlets to put your learning into context.

Stage 2: You continue to develop core knowledge of food science and human nutrition. You study the latest research developments in nutrition, and sports and exercise nutrition, through the experimental human nutrition module. Here, you'll work in small teams to carry out investigations and produce a joint report, gaining experience in how to design and carry out experiments involving people. You'll also take part in a nutrition experiment yourself.

Work placement (B4D6): You spend this year on a work placement in the UK or abroad. See left for details.

Stage 3: Your topics include: nutrition and its relation to health and disease; the scientific basis for setting nutrient requirements in people; and the technologies used in the food industry. You develop your practical skills and your ability to plan and organise by carrying out a research project under the supervision of a member of academic staff. The results of this project form the basis of your dissertation, which showcases your research, report-writing and presentation skills. You complement this with seminars on current issues in food and nutrition. You will also attend a national conference in the UK in the area of food and human nutrition, which will enable you to hear from and meet global experts in food and nutrition research.

Nutrition and Psychology

BSc Honours | BC48 | 3 years |

There is considerable overlap between nutrition and psychology. This degree lets you develop a strong understanding of both subjects, as well as the interactions between them. For example, consumer behaviours and decisions on food choice have a significant impact on health outcomes, including risks for obesity, heart disease and some cancers. These behaviours are affected by strong psychological aspects, which impact on people's perception of nutrition and health.

Stage 1: We introduce you to the basic concepts in psychology through core topics including cognitive psychology, sensation and perception, instinct, learning and motivation. You also study the fundamentals of nutrition, genetics and biological chemistry. You 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 such as: the scientific basis for setting nutrient requirements in people; nutrition and disease; and human nutrition and health. You choose from a range of psychology modules, which currently include areas such as: abnormal psychology and psychiatry; personality and eating disorders; and forensic psychology. You can also choose optional modules to develop your own project topic or focus on career development.

Nutrition with Food Marketing

BSc Honours | BD46 | 3 years |

With Placement BSc Honours | BD64 | 4 years |

This degree explores the application of food marketing and nutritional science to food markets, food consumers, diet, nutrition and health. You learn about the structure of the food industry, which represents the largest manufacturing base in Europe. You also study the links between diet and health; and the challenges of securing a globally sustainable, safe and nutritious food system. You develop the critical and analytical skills required to explore and assess the global food system from social, economic, legal, technological, ethical, political and environmental perspectives.

Stage 1: We introduce you to both 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 (BD64): You spend the year between Stages 2 and 3 on a work placement in the UK or abroad. See opposite for details.

Stage 3: The final year will challenge you to consider critically an array of contemporary food and nutrition issues. You'll also examine the technical, business, societal, ethical and regulatory factors that drive these debates. You study advanced nutrition topics such as: the scientific basis for setting nutrient requirements; nutrition and disease; and human nutrition and health. You study topics related to the procurement, manufacture and transport of food, and the relationship between diet and performance in sport and exercise. You also undertake an individual dissertation and participate in a student conference that you and your fellow course mates will deliver.

Pharmacy

Pharmacists work in a variety of settings providing essential healthcare support, from drug design and production to roles directly within the community and the clinical setting. Our four-year Pharmacy MPharm degree will equip you with the professional skills, scientific knowledge and clinical experience to become a caring, ethical and effective pharmacist. You'll also learn advanced research skills that could prepare you for a career in academic pharmacy or research and development.

- **Train for a career as a pharmacist** – this degree prepares you for a career as a pharmacist, a rewarding role with an attractive graduate salary
- **Enjoy excellent employment prospects** – nearly 90 per cent of pharmacy graduates in the UK are in employment, and over 98 per cent of these are employed as healthcare professionals (source: Prospects, 2017)
- **Join our internationally recognised Faculty of Medical Sciences** – our Pharmacy degree is based in our highly respected Faculty of Medical Sciences. We're among the best British universities for medicine and dentistry, and we're a National Centre of Excellence in biomedical research
- **Learn from leading experts in pharmacy** – our teaching staff includes internationally acknowledged academics with expertise in health informatics, pharmaceutical public health and medicinal chemistry
- **Develop your skills with placements** – develop your professional skills through high levels of patient contact and placements in a variety of healthcare settings

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Pharmacy MPharm	204
You may also be interested in...	
Biomedical and Biomolecular Sciences	
Chemistry with Medicinal Chemistry	
Medicine	
Pharmacology	

See page 244 for a full list of degrees by subject.

Reputation

Study pharmacy at Newcastle University and you will be joining our world-renowned Faculty of Medical Sciences.

We have an international reputation for the quality of our well-established degrees in medicine, dentistry, psychology and biomedical sciences.

Our Pharmacy MPharm degree was originally run by Durham University and we look forward to building on its existing reputation, academic expertise and success at Newcastle.

Professional Accreditation

Newcastle University is currently working towards full accreditation for the Master of Pharmacy (MPharm) degree with the General Pharmaceutical Council (GPhC).

If you want to become a pharmacist, you must study a professionally accredited MPharm Honours degree. This is the first step of your professional career.

After successful completion of your degree, you will need to complete one year as a pre-registration trainee. After this, you can register with the GPhC and be allowed to practise as a pharmacist (see opposite).

GPhC accreditation also means that the degree content and processes have been reviewed for quality assurance purposes to ensure it meets the relevant GPhC standards.

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Pharmacy MPharm Honours

A levels: AAB with Chemistry and at least one of Biology, Mathematics or Physics at A level. Excluding Critical Thinking and General Studies. For Biology, Chemistry and Physics A levels we require a pass in the practical element. Mathematics and English Language both required at GCSE, minimum grade C or 4. Offers are made subject to satisfying fitness to practise conditions.

International Baccalaureate: 36 points. At least 5 points required from Higher Level Chemistry and at least 5 points required from at least one of Higher Level Biology, Mathematics or Physics. At least 4 points required from Standard Level Mathematics or Mathematical Studies if not offered at Higher Level. Offers are made subject to satisfying fitness to practise conditions.

Additional Admissions Information: Applicants must satisfy fitness to practise requirements on admission to the course. This includes a health declaration and submission of an acceptable disclosure and barring service (DBS) clearance. Students coming direct to the course from a country outside of the UK must provide a letter of good conduct from their home country and will be required to submit an acceptable DBS at the end of the first year.

Teaching Style

Our approach to teaching is primarily problem-orientated. We use lectures, seminars, tutorials, problem-based learning, practical experience, laboratory work and case seminars to encourage you to develop knowledge and skills in an integrated manner.

We demonstrate the important links between fundamental pharmaceutical science and application to professional practice. We do this by using a primarily case-led approach. This means that we can ensure that you learn to integrate your developing knowledge and are able to apply it to your future work.

The level of contact that each year group has with the entire MPharm programme team is high and all students spend a high percentage of their week engaged in some form of teaching. Our range of teaching methods ensures you firmly develop both a theoretical knowledge base and practical skills to the correct level.

Careers

Pharmacy is a highly varied profession with a number of different possible career paths open to graduates. Pharmacy graduates are highly sought after and continue to be amongst one of the most employable professionals in the UK.

The majority of pharmacists work in community or hospital practice. Others work closely with general practitioners (primary care) or within the many areas of the pharmaceutical industry.

A career as a pharmacist is exciting and constantly changing. Our MPharm degree will provide you with the practical skills and knowledge base to effectively contribute to high quality patient care whichever section of the profession you ultimately choose. At the end of your studies you will be able to work within the breadth of fields traditionally associated with pharmacy, as well as having access to a range of postgraduate study opportunities.

Some graduates complete their pre-registration training then return to higher education to complete a research degree. You may also undertake a PhD as part of your pre-registration training year, providing the other six months is in a patient-facing environment.

Pre-registration Training

To register as a pharmacist, after successfully completing your MPharm degree, you must complete one year of pre-registration training. This year is completed as a graduate and you are responsible for sourcing your own training contract. However, we will give you lots of support to prepare you for finding and applying for pre-registration training.

You'll receive guidance on personal development, pre-registration training and the pharmacy profession from the academic team and other dedicated staff within the Faculty. At numerous points throughout the course we will introduce you to employers so you can prepare for their likely expectations of a pre-registration trainee.

In addition, the content of your degree will ensure you are well prepared. As a graduate, you will have completed numerous work placements in community, hospital, primary care and industry settings. You'll also have received intensive clinical and scientific teaching through our case-led teaching approach, to ensure you are fully prepared for pre-registration training and the future professional role in pharmacy.

More information on pre-registration training can be found on the General Pharmaceutical Council's website: **www.pharmacyregulation.org**

Pharmacy

MPharm Honours | B230 | 4 years | ✓

This four-year degree focuses on developing your scientific, technical and communication skills so that you can confidently pursue a career as a pharmacist. It is a highly rewarding career and graduates of pharmacy degrees enjoy very high employment levels. You'll enjoy plenty of patient contact and clinical placements throughout your studies to help you put your learning into context as a developing healthcare professional.

Stage 1: You'll study 'Fundamentals of Pharmacy: the Integration of Science and Practice'. This module will focus on patient-orientated problems. You will have access to patients from the very start of the course to ensure that you understand how to apply knowledge and skills. You'll study the normal structure and function of the human body; pharmacology, medicinal chemistry and formulation science; and microorganisms.

You'll gain experience of the workplace and learn a range of professional and practical skills. These include: how to talk to patients; working within healthcare teams; simple examination skills and physiological monitoring; and research skills such as literature searching and statistics.

Stage 2: You study 'Pharmaceutical Care: Pathology, Patients and Professionalism'. You will examine abnormal pathology and subsequent therapeutic options to deal with disease, including chronic disease management. This will be fully integrated with cutting-edge pharmaceutical science, and will be supported by continuing experience of the workplace.

You will also study: law as it is relevant to pharmacy; systems for medicines management including the use of clinical guidelines; and communicating complex information to patients.

Stage 3: You study 'Applied Pharmaceutical Interventions: Design, Delivery and Decisions'. You will experience more complex patient-based cases, which will include multiple disease states and complex therapeutic interventions.

You develop an understanding of how medicines are used concomitantly and how adverse effects are monitored and managed. The development of drugs from first principles will be examined, including the use of molecular modelling techniques. You also study the formulation of injections, implantable medicinal devices and transdermal delivery devices.

You'll continue to develop vital decision-making skills, skills in communication and consultation, and examination.

Stage 4: You study 'Targeted Therapeutics: Optimisation, Critique and Responsibility', which focuses on preparing for practice. You will encounter complex clinical problems, which you will be required to manage from first principles.

You examine specific areas of oncology, infection and immunology, including support strategies for patients. You also learn about state-of-the-art formulation devices used in the delivery of chemotherapy, including the use of nanotechnology.

You also choose an area of pharmacy to study in more detail as part of a research project. Potential areas for focus are: medicinal chemistry; pharmacology; pharmacy practice; formulation science; and pharmaceutical microbiology. This project will be supervised by one of the academic staff and will be closely related to their current research interests. Thanks to our international study abroad links, it is possible for you to undertake the practical aspect of your project at a partner institution overseas.

✓ **Professional accreditation** (see page 202)

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. You 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, the arts, and the natural and social sciences, 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

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You may also be interested in...	
Combined Honours (Philosophy, plus up to two other subjects)	

See page 244 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."

Charlie
Philosophy BA Honours
(formerly Philosophical Studies BA Honours)

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

Study Abroad

You have the opportunity to take part in a study abroad exchange in Europe through the Erasmus scheme, or further afield through our non-EU exchange scheme.

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 the crowd when looking for a job.

You also have the chance to gain work experience as an accredited part of your studies – for example, teaching in local schools or 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 provides a thorough grounding in the main branches of philosophy in both the continental and analytic traditions, and includes elements of non-western thought. You explore the relationship between philosophy and other areas of human endeavour, such as the arts, religion, and natural and social sciences.

Flexibility and choice are built into every year of study, with up to a third of your topics at each Stage available from the wide range of art, language, social science and science options offered at the University.

Dissertation modules are taught in small groups, allowing you to use your philosophical studies to illuminate an area of interest or concern to you.

Stage 1: You will cover topics in ethics, epistemology, the philosophy of religion and existentialism. You'll explore 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.

Work placement (see page 30) **Study abroad** (see page 32)

Physics

Physics is the most fundamental of the natural sciences, as it describes everything from the smallest particles to the entire cosmos. It is based on fundamental laws and concepts such as fields, elementary particles, quantum theory, entropy and relativity. Through a combination of theoretical study and laboratory work, our degrees enable you to develop the scientific knowledge and highly regarded, transferable skills to excel in your chosen career path.

- **Immerse yourself in topics at the forefront of research** – engage with theories that address fundamental questions about the origin, development and future of our world
- **Enjoy fantastic facilities** – learn in brand new, high-specification laboratory facilities stocked with leading experimental laboratory equipment
- **Get recognised** – all of our degrees are recognised by the Institute of Physics (IoP) and our undergraduates are eligible for free student membership of the IoP
- **Develop professional laboratory skills** – laboratory- and project-based modules provide an opportunity to develop your experimental, analytical, computing and research skills
- **Get industrial experience with international employers** – make the most of our links with companies including BAE Systems and Rolls-Royce
- **Become a physicist of the future** – our degree content is driven and delivered by academic staff who are internationally leading researchers in their fields
- **Benefit from our interdisciplinary approach and diverse research strengths** – including expertise in novel electronic materials and semiconductor devices, computational physics, quantum fluids, astrophysics, relativity, and the study of material properties at the nanoscale
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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Mathematics and Statistics	
Mechanical Engineering	

See page 244 for a full list of degrees by subject.

"The Physics course here at Newcastle is amazing. The new lab facilities are way beyond my expectations and the quality of the teaching also. I've learned so much during the time I've been studying here and I would advise any students thinking of studying Physics to seriously consider Newcastle as a firm option."

Matthew
Physics BSc Honours

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Physics/Theoretical 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/Theoretical 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.

Foundation Year

If you don't have the right mathematics and/or science qualifications for direct entry, you will be considered for entry to our foundation year. See page 48 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 49 for details.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Find out more on pages 30–31.

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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

Careers

Physics graduates report earning average salaries close to £27,000 per annum on graduation and graduates can expect this to increase significantly over the course of their career (**www.savethestudent.org**).

A wide range of career destinations is available to our graduates, including finance, engineering, electronics, education, nanotechnology, renewable energy, telecommunications, and the environment.

Further study is an option available to physics graduates, including postgraduate courses for secondary school teaching and PhD courses.

Physics

BSc Honours | F300 | 3 years |

MPhys Honours | F303 | 4 years |

You will develop a strong understanding of the fundamental pillars of physics and develop a grounding in advanced mathematics.

You will explore physics in the natural universe, including astrophysics and cosmology, as well as the physics that underpins emerging technologies, preparing you to contribute to the technological advances of modern society.

Stage 1: You cover topics in: classical dynamics; quantum mechanics including quantum tunnelling; astrophysics including exoplanets; mathematical methods and problem solving; electromagnetism; states of matter and materials including Bose–Einstein condensates; vibrations, waves and AC circuits; and laboratory physics.

Stage 2: You build on your knowledge of core concepts, including quantum mechanics and electromagnetism, and study modules in: thermodynamics; semiconductor devices; optics; materials and solid state physics; statistical mechanics; vector calculus; differential equations; and laboratory physics.

Stage 3: You study core subjects to an advanced level, including: quantum mechanics; classical dynamics; materials and solid-state physics; and electromagnetism. Optional modules in topics such as advanced astrophysics, relativity and cosmology, electronic devices, and fluid mechanics allow you to specialise in areas of interest to you.

Students on both the BSc and MPhys degrees take part in a group project, allowing you to build on your 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 is available, for example: astrophysics and cosmology, quantum theory (pure or applied), photonics, materials science, biophysics, medical physics, and semiconductor devices.

Stage 4 (MPhys only): Students on our four-year MPhys Honours degree gain a deeper understanding of physics, through advanced research-driven modules in their fourth year. This prepares you for a career in physical science or research, including study for higher degrees. You study applied, theoretical and computational physics and work with academics to plan and deliver an extended research project in an area of mutual interest. You may choose to complete a work placement as part of your project, helping you enhance your CV and develop contacts in the workplace.

Theoretical Physics

BSc Honours | F345 | 3 years |

MPhys Honours | F344 | 4 years |

You will develop a strong understanding of the fundamental pillars of physics, with a significant emphasis on the application of advanced mathematics to physical problems.

You will explore physics in the natural universe, including astrophysics and cosmology, as well as the physics that underpins fundamental physical processes, using a range of mathematical and computational techniques.

Stage 1: You cover topics in: classical dynamics; quantum mechanics including quantum tunnelling; mathematical methods and problem solving; astrophysics including exoplanets; electromagnetism; states of matter and materials including Bose–Einstein condensates; vibrations, waves and AC circuits; and laboratory physics.

Stage 2: You build on your knowledge of core concepts, including quantum mechanics and electromagnetism, and study modules in: thermodynamics; semiconductor devices; optics; materials and solid state physics; statistical mechanics; vector calculus; differential equations; computational modelling methods and fluid dynamics.

Stage 3: You study core subjects to an advanced level, including quantum mechanics, classical dynamics, materials and solid-state physics, and electromagnetism. Optional modules in topics such as advanced astrophysics, relativity and cosmology allow you to specialise in areas of interest to you.

Students on both the BSc and MPhys degrees take part in a group project, allowing you to build on your teamworking and practical skills. BSc students also conduct an individual project in an area of interest under the tuition of our expert academic staff; developing research, practical and presentation skills.

Projects let you explore areas of interest in greater depth and may be computational or theoretical in nature. A wide variety of projects is available, for example: astrophysics and cosmology, quantum theory, photonics, fluid mechanics and computational modelling of materials.

Stage 4 (MPhys only): Students on our four-year MPhys Honours degree gain a deeper understanding of physics, through advanced research-driven modules in their fourth year. This prepares you for a career in physical science or research, including study for higher degrees. You study theoretical and computational physics and work with academics to plan and deliver an extended research project in an area of mutual interest. You may choose to complete a work placement as part of your project, helping you enhance your CV and develop contacts in the workplace.

Work placement (see page 30)

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

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 91 per cent student satisfaction score in the *National Student Survey 2016*
- **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 exciting opportunities** – study or work abroad and immerse yourself in the politics of another country, or apply for an optional year-long work placement to gain valuable work experience
- **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

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Government and European Union Studies BA Honours	212
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 244 for a full list of degrees by subject.

Gabrielle
Politics BA Honours

"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."

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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, Economics, 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 and/or Economics is desirable but not essential. GCSE Mathematics (minimum grade A or 7) required if not offered at a higher level. At least one A level from a social science or humanities subject such as History, Government and Politics, Geography, Economics, English or Philosophy is preferred but not essential. 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 6 or above required in a modern foreign language. If a candidate wishes to study French, German or Spanish at post-A level standard, minimum grade B in the relevant A level language is required. At least one A level from a social science or humanities subject such as History, Government and Politics, Geography, Economics, English or Philosophy is preferred but not required. 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 91 per cent overall student satisfaction score in the *National Student Survey 2016*.

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 or study in another EU country is a compulsory part of the Government and European Union Studies degree (see page 212).

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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. You also take a module focused on developing your analytical and learning skills. You have a choice of optional topics from inside the subject area, as well as from courses such as geography, economics, history and sociology.

Stage 2: You deepen your understanding of political theory, international politics, and political systems – choosing from options including Russia, Africa, the European Union, the USA and the Middle East. You can choose to study further specialist modules in each of these areas. It is possible to spend a semester in Stage 2 or 3 at a partner university in Europe or beyond, or on an approved work placement overseas.

Stage 3: You develop your own research agenda, extending your knowledge and understanding of politics by choosing from a wide selection of modules on a diverse range of countries, concepts and issues. You also gain experience of, and confidence in, conducting your own research by completing either a dissertation, a research project or a community-based research module.

Politics and Economics

BA Honours | LL21 | 3 years |

This flexible degree is delivered jointly by Politics and Newcastle University Business School. It offers the exciting intellectual challenge of exploring two disciplines of central importance to the contemporary world, opening up a wide range of career pathways. You have the opportunity to specialise further in both disciplines as the degree progresses.

Stage 1: We introduce you to the study of economics through mathematically focused modules in economic analysis, political economy, mathematics for economics, and analysing economic data. You also cover core aspects of politics, choosing from optional topics that cover international politics, political thought, and UK and European political systems.

Stage 2: You deepen your understanding of economics and statistical techniques, with modules covering micro- and macroeconomic principles. You also have the freedom to choose from a range of politics modules, including international relations, political theory and political system modules including Europe, the USA, Africa, the Middle East and Russia.

You can choose to spend a semester in Stage 2 or 3 studying politics or economics at one of our partner institutions in Europe or beyond, or on an approved work placement.

Stage 3: You have the opportunity to shape your degree to your personal interests, selecting all of your topics from a diverse list of optional modules (half each from politics and economics). Modules are at an advanced level, and based on research undertaken in Politics and the Business School, meaning you extend and deepen your knowledge of both subjects. The dissertation, project and community-based research modules provide an excellent opportunity for you to conduct your own research into an area of politics that interests you.

Government and European Union Studies

BA Honours | L241 | 4 years |

This degree focuses on the politics and culture of the European Union and its member states, alongside study of a modern European language. You can choose from French, German, Portuguese or Spanish, all of which may be taken at beginners', intermediate (eg post-GCSE/AS level) or advanced (eg post-A level) level. You'll 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 in small groups, by native speakers, to give you plenty of opportunity to practise your skills. You may choose to study a second language if you wish. You are introduced to the politics of the UK and the European Union, as well as research methods, international politics and political theory. A wide choice of optional modules allows you to follow your particular interests.

Year abroad (compulsory): You spend your year abroad studying at one of our partner universities or on a work placement abroad. This gives you the opportunity to dramatically improve your language skills and gain direct experience of the politics, society and culture of another country.

Stage 3: You complete either a dissertation, a research project in politics, or a community-based research module. You also choose optional topics from the wide selection available in politics, languages and from other related subject areas.

Work placement (see page 30) **Study abroad** (see page 32)

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 gain even more practical research experience through our vacation scholarships scheme and certified research apprenticeship scheme. All of our degrees are accredited by the British Psychological Society and you can study psychology on its own or combine it with biology, mathematics or nutrition.

- **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
- **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

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You may also be interested in...	
Biology	
Biomedical and Biomolecular Sciences	
Nutrition and Psychology BSc Honours	

See page 244 for a full list of degrees by subject.

"If you would like to study psychology you should definitely consider Newcastle University! The course ensures that you have a good grounding in psychology as well as allowing you to focus on more specialised topics in your third year."

Hannah
Psychology BSc Honours

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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 or 6) 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 92 per cent overall student satisfaction score in the *National Student Survey 2016*. We also rank in the top 20 UK universities in *The Times/Sunday Times University Guide 2017*. In the *QS World University Rankings by Subject 2016* we rank in the top 200 universities in the world.

Professional Accreditation

Our degrees are accredited by the British Psychological Society (BPS). This equips you with the Graduate Basis for Chartered Membership with the British Psychological Society, providing you achieve a lower-second-class Honours or above. This means you can join the BPS and will be eligible to go on to further training and, if successful, to practise as a professional psychologist.

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.

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 |

You can find a detailed description and entrance requirements in the Biology and Zoology section on page 75.

Mathematics and Psychology

BSc Honours | CG81 | 3 years |

You can find a detailed description and entrance requirements in the Mathematics and Statistics section on page 169.

> 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

Psychology

BSc Honours | C800 | 3 years |

The first year (Stage 1) of this BPS-accredited degree consists of compulsory modules that set out the foundations of psychology and the associated life sciences. The second year (Stage 2) comprises some compulsory modules along with some optional modules, allowing you to focus on a professional, cognitive, or career development pathway.

In the third year, you have a free choice of modules, giving you the chance to explore and benefit from our internationally recognised research in areas such as: visual and cognitive neuroscience; animal behaviour; disorders of development; and forensic, health and clinical psychology.

Stages 1 and 2: Topics covered in the first year include: cognitive psychology; developmental and social psychology; evolution and genetics for psychologists; history of psychology; sensation and perception; and instinct, learning and motivation.

Three of our first-year modules (Psychological Enquiry, and Research Methods and Skills I and II) are skills-based, training you in the skills essential to carry out psychological research such as conducting experiments, analysing and interpreting data, researching literature and writing up research reports.

You continue to practise and develop these skills in the second year along with more training in writing and critical evaluation of psychological material. You also study core compulsory modules which cover: developmental psychology; social psychology; individual differences; biological psychology; and statistics for experimental psychology.

Optional modules cover perception, animal cognition, cognitive neuroscience, clinical psychology, and abnormal psychology and psychiatry. Alternatively you can take a Career Development Module.

You will also begin a professional skills module that will help you to reflect and develop your academic and vocational skills, preparing you for the workplace.

Professional placement: 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. This is subject to availability and extends your degree to four years in length.

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 and weight disorders; sex and human nature; and many others. You may also choose one approved module from outside the psychology programme.

A major element of this Stage is an empirical project, in which you devise, carry out and write up your own piece of original research. Previous projects have explored topics such as: mental toughness and academic attainment; intolerance of uncertainty and adult separation anxiety; emotion perception of sex-offenders and non sex-offenders; and the effects of distraction on pain perception. In Stage 3 you also complete your professional skills module.

Sociology

Sociology examines social structures, relationships and identities. It focuses on contemporary issues such as social divisions, sexuality, health and inequality. We provide a solid foundation in sociology alongside teaching in anthropology, which explores issues facing communities across the globe. We offer 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 construction 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
- **Boost your employability** – apply to take an optional year-long work placement to gain valuable workplace experience
- **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

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You may also be interested in...	
Combined Honours (Sociology, plus up to two other subjects)	
History	
Politics	
Psychology	

See page 244 for a full list of degrees by subject.

Work placement (see page 30) Study abroad (see page 32)

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Sociology BA Honours
Politics and Sociology BA Honours

A levels: ABB–BBB.

International Baccalaureate: 30–32 points.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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.

"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!"

Jamie
Sociology BA Honours

Careers

Studying sociology equips you with the skills 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. Areas include: 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 law conversion courses.

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

Sociology

BA Honours | L300 | 3 years |

If you are curious about the social forces that shape people's everyday lives and keen to learn about different cultures and societies, this is the degree for you. Sociology means thinking critically about the world around us, exploring social institutions, social change, and the social dynamics that shape identities and interactions.

With support from enthusiastic expert staff, you can develop your own interests and gain a grounding in sociological and anthropological theories and research methods. You'll develop transferable skills including critical thinking, analysing complex data, and oral and written presentation skills.

Stage 1: You learn to develop a 'sociological imagination', get to grips with key perspectives in sociology and social anthropology, and discover how questions about the social world are generated and investigated. Through core modules you are introduced to important topics, including social inequalities, family and kinship, education and work, media and lifestyle, the state and citizenship. The Understanding Everyday Life module encourages you to make sociological sense of ordinary situations, people and things, through fieldwork as well as classroom teaching. You can also take 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 support from an experienced supervisor.

Our students have generated fascinating research findings on a diverse range of topics, such as: gender roles in India; student occupations; Fairtrade; fan communities; the medicalisation of dying; and 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. This introduces you to the reciprocal relationship between political cultures and social life, and helps you build a solid foundation for integrating the two disciplines throughout your degree.

You also take a core module called Truth, Lies and Politics, which equips you with research skills and the ability to present academic arguments. It also introduces the critical and moral issues involved in the creation of social-scientific knowledge.

You choose optional modules in both disciplines including: the sociological imagination; comparing cultures; foundations of political thought; and 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.

Work placement (see page 30) **Study abroad** (see page 32)

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. Our graduates progress to rewarding careers in hospitals, clinics, paediatric assessment centres and adult rehabilitation units.

- **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

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Speech and Language Sciences BSc Honours	221
You may also be interested in...	
English Literature, Language and Linguistics	
Medicine	
Psychology	

See page 244 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

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Speech and Language Sciences BSc Honours

A levels: AAB normally including one of the core sciences (Biology, Chemistry, Physics). If a candidate is not sitting any of the core sciences at A level, we may accept a core science at AS level. In this case the typical offer would be AAB at A level, and B for the AS level core science. For Biology, Chemistry and Physics A levels, we require a pass in the practical element. General Studies not accepted as a full A level. GCSE Mathematics required (minimum grade B or 6) if not offered at a higher level.

International Baccalaureate: A minimum of 35 points with three subjects grade 5 or above at Higher Level. A core science at grade 6 and Mathematics or Mathematical Studies at 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.

"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."

Sarah
Speech and Language Sciences BSc Honours

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 in the top 10 in the UK for Aural and Oral Sciences in *The Complete University Guide 2017*. We also rank 4th in the UK for overall student satisfaction in the *National Student Survey 2016*, with a score of 93 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.

Professional accreditation (see page 221)

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

Sport and Exercise Science

Sport and Exercise Science at Newcastle provides a strong scientific foundation in sport and exercise-related sciences and an understanding of how these relate to human performance and health. Taught in our internationally recognised Faculty of Medical Sciences, you'll learn from leading academics in the areas of exercise physiology, strength and conditioning, nutrition, biomechanics and sports psychology, amongst others.

- **Enjoy fantastic facilities** – access the Medical School's fantastic facilities including the clinical skills lab, physiology labs, anatomy room and dedicated library
- **Develop professional skills and knowledge** – we place emphasis on the development of key practical skills in the laboratory and in the field. These will be attractive to employers in sectors including professional sport, industry, health promotion and education
- **Conduct research in specialist facilities** – in your final year you'll complete a research project into an area of your specific interest. You will have the opportunity to work alongside scientists from one of the Faculty of Medical Sciences' top-ranked research institutes
- **Enhance your employability** – you will have the opportunity to apply for a year-long work placement, study a career development module, work closely with our industry partners, or to study abroad
- **Benefit from our reputation for sporting excellence** – at Newcastle University, academic achievement and sporting excellence go hand in hand. 'Team Newcastle' is top 10 for sport nationally and our sports scholarships provide additional financial, educational and mentoring support to help high-performing student athletes achieve their full potential
- **Enjoy excellent support** – you'll have a personal tutor and a student mentor. Our lecturers offer an open door policy and you will be supported in all areas of your study and student life

Degree	Page
Sport and Exercise Science BSc Honours	223
You may also be interested in...	
Biology and Zoology	
Medicine	
Nutrition and Food	
Psychology	

See page 244 for a full list of degrees by subject.

Work Placement/Experience

You may apply to spend nine to 12 months on an optional work placement between Stages 2 and 3. An optional work placement extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

We also provide lots of additional work experience opportunities here at the University, including:

- vacation studentship opportunities in one of the University's research laboratories
- paid part-time work in one of our research institutes through our Laboratory Assistant scheme
- employability ambassador scheme
- student mentoring scheme

The University has an award-winning Careers Service. They can help you find suitable work, provide interview training and offer advice on your CV and job application forms.

Study Abroad

UK and EU students can gain an international perspective on their subject by taking part in a study abroad exchange. You can study abroad at a partner university or take a summer placement in a research laboratory overseas. We have partners across Europe and in Australia and Singapore.

Work placement (see page 30) **Study abroad** (see page 32)

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Sport and Exercise Science BSc Honours

A levels: AAA–AAB including at least one from Mathematics, Physics, Physical Education, Chemistry, Biology or Human Biology, and Psychology.

For Biology, Chemistry and Physics A levels, we require a pass in the practical element. Use of Mathematics, World Development, Communication and Culture, General Studies and Critical Thinking not accepted.

At least five GCSE grades A*–B (or 8–6) required, including Mathematics and English Language.

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 ranked in the top 10 universities in the UK for Sports Science in *The Complete University Guide 2017*.

The Faculty of Medical Sciences is 44th in the world for Biomedical and Health Sciences (CWTS Leiden Ranking, 2015). In the recent Research Excellence Framework exercise, the Faculty was the 8th best faculty in the UK for Medicine and Life Sciences Research.

Careers

There is a growing demand for graduates with a strong foundation in science and applied research approaches to sport and exercise. Sport and exercise science graduates have a number of career options including jobs in the following: National Governing Bodies; UK institutes of sport; professional sports clubs; pharmaceutical and food and drink industries; health services; and education.

With an exercise science-related degree, you could also: undertake medical and health-related research in universities and research institutes; work in hospitals and public health laboratories or take a further degree (either an MSc or PhD qualification).

Our graduates also embark on careers unrelated to sport and exercise sciences; for example, in management, accountancy, and IT.

Sport and Exercise Science

BSc Honours | C600 | 3 years |

This degree provides a strong scientific foundation in sport and exercise-related sciences and an understanding of how these relate to human performance and health.

You'll learn about the key areas of sport and exercise science, including: anatomy; physiology; biomechanics; psychology; bioenergetics and nutrition. The degree is taught in our Faculty of Medical Sciences and draws on our expertise in exercise physiology, nutrition, sport and health psychology, and biomechanics.

Your programme will include: seminars and workshops from industry partners and applied practitioners; the opportunity to work closely with elite athletes from the University's Team Newcastle; optional vocational modules to help you hone your career plans and boost your employability; and a major research project, to showcase your knowledge and skills.

Stage 1: Stage 1 provides you with foundation knowledge and skills in the key discipline areas of sport and exercise science. You'll study a range of topics spanning physiology, anatomy, biomechanics, psychology and biochemistry. You'll also learn about the principles of exercise, nutrition and health.

Stage 2: You build on the knowledge and skills obtained in Stage 1. You develop your understanding of the application of sport and exercise science to human performance and exercise behaviours. Topics include modules in applied biomechanics, psychology and nutrition. You also study exercise physiology, research methods, and principles of strength and conditioning.

Stage 3: You further develop the knowledge and skills learnt in Stages 1 and 2 through a multidisciplinary approach to sport and exercise science. You study modules in physical activity and disease, as well as sport and exercise medicine. A research project allows you to study a sport and exercise topic in detail, under the supervision of our expert research staff.

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

Surveying and Mapping Science

Our professionally accredited degree produces highly employable graduates with a wealth of advanced technical skills, ready for a career at the forefront of surveying science. You'll become an expert in the use of cutting-edge technologies to measure the built and natural environments, preparing you for careers in diverse international sectors such as construction, cartography, engineering and more. From mapping utilities on large civil engineering sites to working offshore to position oil rigs and wind farms, there is no shortage of jobs for graduates with the unique combination of mapping, surveying and geomatics skills that our degree offers. If you're ready to develop your interest in mathematics, IT and geography into a rewarding career, this degree is for you.

- **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 software
- **Receive a starter pack of essential equipment** – we'll give you a first-year starter pack containing essential resources and equipment to support your learning
- **Broaden your horizons with international experiences** – undertake work overseas on an expedition or attend an international student conference
- **Join a close-knit community** – we offer a friendly atmosphere, helped by our excellent student–staff ratio and team-building trip in your first week here
- **Stand out from the crowd** – by undertaking a Year in Industry, you'll boost your employability and get a taste of working in your chosen sector

Degrees	Page
Surveying and Mapping Science BSc Honours	226
Surveying and Mapping Science with Year in Industry BSc Honours	226
You may also be interested in...	
Civil Engineering	
Computer Science	
Geographic Information Science	
Mathematics and Statistics	

See page 244 for a full list of degrees by subject.

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.da.mod.uk/Colleges-Business-Units/6th-Form-DTUS**

Year in Industry

Between Stages 2 and 3, spend a year on a paid industrial placement, where you'll gain first-hand experience of working in industry.

You'll put your learning into practice, and test and develop your professional expertise.

You'll develop valuable workplace skills such as communication, teamwork and project management. Securing a placement will be your first step in the transition from study to employment and there is support to help you identify opportunities, write your CV and make applications.

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. See **www.ncl.ac.uk/undergraduate/degrees**

Surveying and Mapping Science BSc Honours

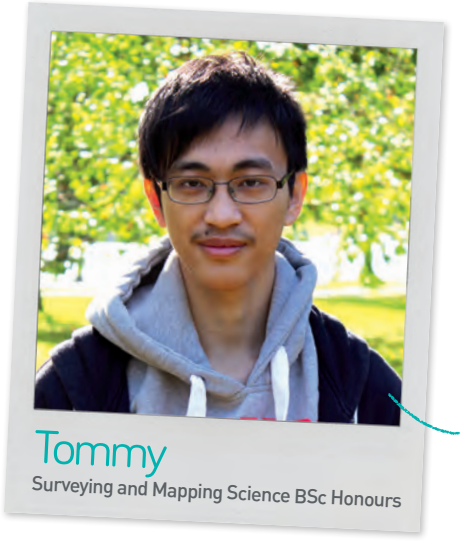
Surveying and Mapping Science with Year in Industry BSc Honours

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 or 6 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.



Tommy
Surveying and Mapping Science BSc Honours

Careers

Graduates of our degree are highly sought after by industry. Of our recent graduates in employment, 100 per cent were in professional or managerial jobs and the average salary was more than £24,000*.

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.

Surveying and mapping involves using technology in many different environments, from remote fieldwork to cutting-edge technology offices. 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.

Your qualification will also have international appeal and some of our recent graduates are now working in Australia and the USA.

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.

*80% of our recent graduates were in work and 100% of those in work were in professional or managerial-level jobs. (Destinations of Leavers of Higher Education Survey 2014–15).

> 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.

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

Surveying and Mapping Science

BSc Honours | H244 | 3 years |

With Year in Industry BSc Honours | H249 | 4 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 153), which focuses on the computer systems and software used for analysing geographic data.

Stage 1: You study alongside our Geographic Information Science students, learning about the key concepts in surveying, mapping and geographic information, often through outdoor and computer-based practical work. You also learn the fundamental skills you will need to succeed at university by studying modules such as mathematics and study skills. In the second semester, you undertake more practical land surveying work and start to explore GPS technology. A residential field course mapping a Lake District valley puts all your experience and theory into practice.

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.

Stage 2: Having learned and practised key concepts, this year explores different aspects of surveying and mapping in more detail. You continue your studies in surveying and GPS technology, as well as exploring new topics such as: photogrammetry; laser scanning; digital surveying; and map projections and datums. You will also learn more about the role of research and professional practice in the surveying and mapping industry.

Year in Industry: Between Stages 2 and 3, students on our Year in Industry degree undertake a professional placement in the surveying and mapping science sector – see page 224.

Stage 3: This Stage starts with a residential field course where you apply your previous two years' work to surveying and mapping exercises such as structural monitoring, control surveys, and highways design. Your focus then turns to your independent research project, which runs throughout the year and forms a quarter of the final-year assessment. Written up as a dissertation, this develops your investigative, research and report presentation skills. You study advanced specialist modules in areas such as offshore surveying, geodesy and geohazards. You also have a choice of topics that are linked to our cutting-edge research, or employment sectors such as civil engineering.

Charmaine
Surveying and Mapping Science BSc Honours

Professional accreditation (see page 225) Work placement (see page 30)

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 and protect the natural environment? Or learn how to 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 becoming 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** – there are 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
- **Boost your CV** – apply for an optional year-long work placement to gain valuable work experience

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Master of Planning MPlan	229
You may also be interested in...	
Architecture	
Architecture and Urban Planning	
Geography and Planning	

See page 244 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

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

Entrance Requirements

Please check the full entrance requirements which are listed as part of our online course profiles on our website. 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 4th in the UK for planning in *The Complete University Guide 2017*.

Professional Accreditation

Our Urban Planning BA Honours degree is professionally accredited by the Royal Town Planning Institute (RTPI). This means it satisfies the standards set by the planning profession.

Our four-year MPlan degree is dual accredited.

- It is professionally accredited by the Royal Town Planning Institute (RTPI) and offers an RTPI-accredited route to Chartered Town Planner status. The MPlan leads to an undergraduate Master of Planning qualification, which satisfies the educational requirements of the RTPI. You will need to first complete two years' experience in a planning practice and our Certificate in Planning Practice counts as one of these two years.
- It is also Royal Institution of Chartered Surveyors (RICS) accredited via RICS's 'planning and development' pathway, and offers a RICS-accredited route to gain Chartered Surveyor status.

BA Urban Planning and MPlan students will be automatically enrolled to free student membership of the RTPI at the start of their degree (individuals can opt out). MPlan students can register as a student for RICS membership via RICS's website.

Work Placement Year

You may apply to spend nine to 12 months on an optional work placement, which extends your degree by a year and is subject to availability. Not available if you are spending a year studying abroad. Find out more on pages 30–31.

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 degrees in Architecture and Urban Planning BA Honours (see page 74) or Geography and Planning BA Honours (see page 153). Both of these 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, mean 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. Modules include: design awareness and communication; planning processes; and economics of development.

Stage 2: You focus on professional development and skills. You learn vital research methods as well as developing an understanding of professionalism in the planning sector. You have a choice of optional modules to help tailor the Stage to your personal interests, such as: housing policy; design and neighbourhood; urban poverty; and understanding cities. You can also choose to take a European field trip.

Stage 3: You study modules concerned with strategic planning, planning politics and development management. A dissertation gives you the chance to study 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. 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.

Stages 1 to 3: See Urban Planning BA Honours, left.

Certificate in Planning Practice: The Certificate is a one-year work placement between Stages 3 and 4 of our MPlan degree. The placement is paid (salaries up to £24,000) and counts as one of the two years' practice required to gain RTPI membership (see Professional Accreditation 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

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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

The 'Qualifications' section on page 234 provides information about the UK, EU and international qualifications we accept and details of our English language requirements.

Check online for the most up-to-date course and entry requirement information for your chosen degree at **www.ncl.ac.uk/undergraduate**

International students should visit our country pages to see which international qualifications we accept: **www.ncl.ac.uk/international/country**

If you are studying qualifications that are not listed in this Prospectus or on our website please contact Student Services to confirm the acceptability of your qualifications (see back cover for contact 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**

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 and long-term mental health conditions

We are committed to providing an accessible environment for disabled students and students with specific learning difficulties and long-term mental health conditions, and a range of support is available at the University.

We encourage you to contact us before you apply so that you can find out more about the University's provision for disabled students and make an informed decision about whether we are the right university for you.

If you notify us when booking on 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 know that mature students (aged 21 or over at the time of entry) return to education for a variety of reasons, including enhancing their career prospects, after raising a family, or as a rewarding challenge in retirement. These differences are evident in the diverse mix of backgrounds and professions of our current mature student population.

To apply for undergraduate study at Newcastle you must use the UCAS online application system at **www.ucas.com**. We look for evidence of your potential to study successfully within higher education and are particularly interested in any qualifications you are currently taking or have already gained (whether recently or in the past). We may also take life experience, motivation, interests and work experience into consideration, especially if they are relevant to the degree for which you have applied.

Each year our Student Wellbeing team organises a Mature Student Event to provide information, advice and guidance on a range of relevant issues. It also provides a great opportunity for you to:

- find out more about what it is like when you start University
- meet current undergraduate mature students who will share their experiences of student life
- meet other mature students who will be starting at the same time as you

If you have any questions about applying to Newcastle University as a mature applicant, please contact Student Services (see 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 grade requirements for a particular degree.

UCAS Tariff points system

Our admissions tutors do not use the UCAS Tariff points system for expressing conditional offers, although they may use it to help them to assess the equivalence of different combinations of qualifications offered by candidates. Achievement of an equivalent number of points does not necessarily mean 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

Clearing

If you don't get the results you need for your chosen course, don't panic. We welcome applications through Clearing, which gives you the chance to apply for other courses. For more information, see **www.ncl.ac.uk/clearing**

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.

For details of the University's full terms and conditions, see **www.ncl.ac.uk/pre-arrival/regulations**

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 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 Level 3 Extended Diploma
- Cambridge Pre-U

If the qualifications you have or are studying are not listed in this Prospectus or online please contact Student Services to see whether they are acceptable for entry to a particular degree (see 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 2018, 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

As an international university, we welcome applications from international students and consider all applications on an individual basis.

Please visit our country pages to see which international qualifications we accept for direct entry onto our undergraduate programmes. Should your qualification not be listed, please contact our Student Services for more information (see back page for contact details). **www.ncl.ac.uk/international/country**

English language requirements

If English is not your first language, you will need to show that you have an adequate knowledge of written and spoken English before you begin your studies at the University. We typically require a score of IELTS 6.5 or equivalent for direct entry to the University. Some degrees require a minimum of IELTS 7.0 or 7.5 or equivalent, whereas others will accept a minimum of IELTS 6.0 or equivalent. Check the entry requirements page of your chosen degree online for specific English language requirements for your course: **www.ncl.ac.uk/undergraduate/degrees**

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/courses/language**

We offer a range of English language support courses to international students to assist you during your academic studies; please visit pages 36–37 for more information.

We also offer a variety of foundation programmes and university preparation courses. See pages 48–51 for further 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 the activities are run by 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/undergraduate/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 38 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. Fourteen 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, young people with special educational needs or disabilities, looked-after young people and young carers.

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 380 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.

- 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

For more information see: **toolkit.ncl.ac.uk**

Support for teachers

We offer free 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. 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% off the usual 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 25 minutes and costs £3.30. Alternatively, via taxi, it takes around 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.

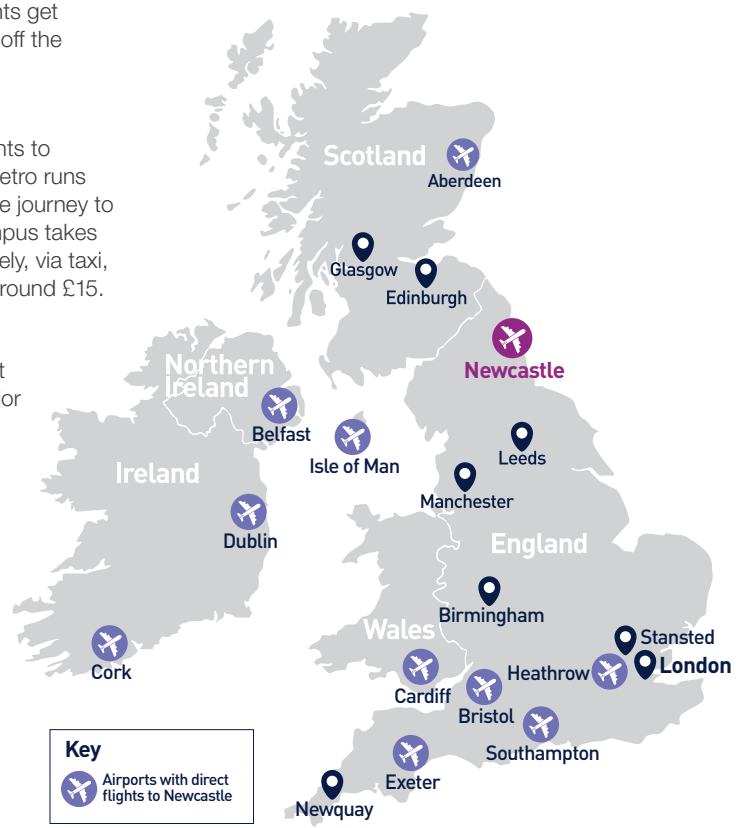
- York: 2 hours 20 minutes
- Leeds: 2 hours 30 minutes
- Edinburgh: 2 hours 55 minutes
- Manchester: 3 hours 35 minutes
- London: 6 hours 35 minutes

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



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

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 Newcastle University Business School and Science Central

9 Quayside cafés, bars, bridges 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.

Degrees	UCAS	A Level	IB	Page
A				
Accounting and Finance BA	N400	AAB	35	60
Accounting and Finance with Placement BA	N401	AAB	35	60
Accounting and Finance BSc (London campus)	N402	AAB	35	54
Accounting and Finance with Placement BSc (London campus)	N404	AAB	35	54
Accounting and Finance with Foundation Year BSc (London campus)	N406	N/A	N/A	54
Accounting and Mathematics BSc	NG41	AAB	35	61
Agri-Business Management BSc	N280	AAB–ABB	35	63
Agriculture BSc	D400	ABB–BBB	30–32	65
Agriculture with Agronomy BSc	D444	ABB–BBB	30–32	66
Agriculture with Animal Production Science BSc	D422	ABB–BBB	30–32	66
Agriculture with Farm Business Management BSc	D402	ABB–BBB	30–32	66
Ancient History BA	V110	AAB–ABB	32–35	105
Ancient History and Archaeology BA	VV14	ABB	32	71
Animal Science BSc	C305	ABB–BBB	32–35	68
Applied Plant Science BSc	C211	Please see page 68		68
Archaeology BA	V400	ABB–BBB	32	71
Architecture BA	K100	AAA	36	73
Architecture and Urban Planning BA	K190	ABB	32	74
Automation and Control BEng	H660	AAB	35	133
Automation and Control with Industrial Project MEng	H661	AAA	37	133
B				
Biochemistry BSc	C700	AAA–AAB	34–35	82
Biochemistry Integrated Master's MSci	C701	AAA–AAB	34–35	82
Biology BSc	C100	AAB–ABB	35	77
Biology MBiol	C103	AAA–AAB	35	77
Biology (Cellular and Molecular Biology) BSc	C1C7	AAB–ABB	35	77
Biology (Cellular and Molecular Biology) MBiol	C7C1	AAA–AAB	35	77
Biology (Ecology and Conservation) BSc	C182	AAB–ABB	35	78
Biology (Ecology and Conservation) MBiol	C183	AAA–AAB	35	78
Biology and Psychology BSc	CC18	AAB–ABB	35	79
Biomedical Genetics BSc	B901	AAA–AAB	34–35	83
Biomedical Genetics Integrated Master's MSci	B903	AAA–AAB	34–35	83
Biomedical Sciences BSc	B940	AAA–AAB	34–35	83
Biomedical Sciences Integrated Master's MSci	B900	AAA–AAB	34–35	83
Business Accounting and Finance BA	NN14	AAB	35	61
Business Management BA	N200	AAB	35	87

Most of our degrees offer a year-long work placement.
Look out for the icon next to your chosen subject on pages 53–229

Degrees	UCAS	A Level	IB	Page
C				
Chemical Engineering BEng	H810	AAA	37	92
Chemical Engineering MEng	H813	AAA	37	92
Chemical Engineering with Bioprocess Engineering MEng	H831	AAA	37	92
Chemical Engineering with Foundation Year BEng	H814	AAA–AAB	35–37	49
Chemical Engineering with Foundation Year MEng	H816	AAA–AAB	35–37	49
Chemical Engineering with Industry MEng	H815	AAA	37	93
Chemical Engineering with Process Control MEng	H830	AAA	37	93
Chemical Engineering with Sustainable Engineering MEng	HH82	AAA	37	93
Chemistry BSc	F100	ABB	34	97
Chemistry MChem	F103	AAB	35	97
Chemistry with Industrial Training Year BSc	F102	ABB	34	97
Chemistry with Industrial Training Year MChem	F106	AAB	35	97
Chemistry with Study Abroad MChem	F107	AAB	35	97
Chemistry with Medicinal Chemistry BSc	F151	ABB	34	97
Chemistry with Medicinal Chemistry MChem	F123	AAB	35	97
Chemistry with Medicinal Chemistry with Industrial Training Year BSc	F122	ABB	34	97
Chemistry with Medicinal Chemistry with Industrial Training Year MChem	F124	AAB	35	97
Chemistry with Medicinal Chemistry with Study Abroad MChem	F156	AAB	35	97
Chinese Studies BA	TT12	ABB–BBB	32	192
Civil Engineering BEng	H200	AAB	35	101
Civil Engineering MEng	H290	AAA	37	101
Civil Engineering with Year in Industry BEng	H205	AAB	35	101
Civil Engineering with Year in Industry MEng	H295	AAA	37	101
Civil Engineering with Foundation Year BEng	H201	AAA–AAB	35–37	49
Civil Engineering with Foundation Year MEng	H291	AAA–AAB	35–37	49
Civil and Structural Engineering BEng	H210	AAB	35	102
Civil and Structural Engineering MEng	H242	AAA	37	102
Civil and Structural Engineering with Year in Industry BEng	H206	AAB	35	102
Civil and Structural Engineering with Year in Industry MEng	H296	AAA	37	102
Civil and Surveying Engineering BEng	H202	AAB	35	102
Civil and Surveying Engineering MEng	H292	AAA	37	102
Civil and Surveying Engineering with Year in Industry BEng	H208	AAB	35	102
Civil and Surveying Engineering with Year in Industry MEng	H298	AAA	37	102
Classical Studies BA	Q810	AAB–ABB	32–35	105
Classical Studies and English BA	QQ83	AAB	35	106
Classics BA	Q800	AAB–ABB	32–35	106
Combined Honours BA	Y001	AAB	34	109
Computer Science BSc	G400	AAB–ABB/AAC	34–35	113
Computer Science MComp	G405	AAB	35	113
Computer Science with Industrial Placement BSc	G401	AAB–ABB/AAC	34–35	113
Computer Science with Industrial Placement MComp	I100	AAB	35	113
Computer Science with Study Abroad MComp	G406	AAB	35	113
Computer Science (Bio-Computing) BSc	I520	AAB–ABB/AAC	34–35	114
Computer Science (Bio-Computing) MComp	I522	AAB	35	114
Computer Science (Bio-Computing) with Industrial Placement BSc	I521	AAB–ABB/AAC	34–35	114
Computer Science (Bio-Computing) with Industrial Placement MComp	I524	AAB	35	114
Computer Science (Game Engineering) BSc	G450	AAB–ABB/AAC	34–35	114
Computer Science (Game Engineering) MComp	I610	AAB	35	114
Computer Science (Game Engineering) with Industrial Placement BSc	G451	AAB–ABB/AAC	34–35	114

Degrees	UCAS	A Level	IB	Page
C (continued)				
Computer Science (Game Engineering) with Industrial Placement MComp	I612	AAB	35	114
Computer Science (Human–Computer Interaction) BSc	I140	AAB–ABB/AAC	34–35	115
Computer Science (Human–Computer Interaction) with Industrial Placement BSc	I141	AAB–ABB/AAC	34–35	115
Computer Science (Mobile and Distributed Systems) BSc	G420	AAB–ABB/AAC	34–35	115
Computer Science (Mobile and Distributed Systems) MComp	I120	AAB	35	115
Computer Science (Mobile and Distributed Systems) with Industrial Placement BSc	G421	AAB–ABB/AAC	34–35	115
Computer Science (Mobile and Distributed Systems) with Industrial Placement MComp	I122	AAB	35	115
Computer Science (Security and Resilience) BSc	I190	AAB–ABB/AAC	34–35	116
Computer Science (Security and Resilience) MComp	I192	AAB	35	116
Computer Science (Security and Resilience) with Industrial Placement BSc	I191	AAB–ABB/AAC	34–35	116
Computer Science (Security and Resilience) with Industrial Placement MComp	I194	AAB	35	116
Computer Science (Software Engineering) BSc	G600	AAB–ABB/AAC	34–35	116
Computer Science (Software Engineering) with Industrial Placement BSc	G603	AAB–ABB/AAC	34–35	116
Contemporary and Popular Music BA	W301	ABB–BBB	32	195
Countryside Management BSc	D455	ABB–BBB	32–34	144
D				
Dental Surgery BDS	A206	AAA	37	120
Digital Electronics BEng	H990	AAB	35	134
Digital Electronics with Industrial Project MEng	H991	AAA	37	134
E				
Earth Science BSc	F641	AAB–ABB	33–35	124
Earth Science with Year in Industry BSc	F646	AAB–ABB	33–35	124
Earth Science MEarthSci	F640	AAB–ABB	33–35	124
Earth Science with Year in Industry MEarthSci	F645	AAB–ABB	33–35	124
Economics BSc	L100	AAB	35	127
Economics and Business Management BA	LN12	AAB	35	127
Economics and Finance BSc	L161	AAB	35	128
Economics and Mathematics BSc	GL11	AAB	35	128
Education BA	X390	ABB–BBB	30–32	130
Electrical and Electronic Engineering BEng	H607	AAB	35	134
Electrical and Electronic Engineering with Foundation Year BEng	H604	AAA–AAB	35–37	49
Electrical and Electronic Engineering with Foundation Year MEng	H606	AAA–AAB	35–37	49
Electrical and Electronic Engineering with Industrial Project MEng	H605	AAA	37	134
Electrical Power Engineering BEng	H623	AAB	35	134
Electrical Power Engineering with Industrial Project MEng	H622	AAA	37	134
Electronic Communications BEng	H640	AAB	35	135
Electronic Communications with Industrial Project MEng	H621	AAA	37	135
Electronics and Computer Engineering BEng	H652	AAB	35	135
Electronics and Computer Engineering with Industrial Project MEng	H654	AAA	37	135
Engineering with Foundation Year BEng	H101	AAA–AAB	35–37	49
Engineering with Foundation Year MEng	H103	AAA–AAB	35–37	49

Most of our degrees offer a year-long work placement.
Look out for the icon next to your chosen subject on pages 53–229

Degrees	UCAS	A Level	IB	Page
E (continued)				
English Language BA	Q302	AAB–ABB	34–35	138
English Language and Literature BA	Q300	AAA–AAB	35–36	139
English Literature BA	Q306	AAA–AAB	35–36	139
English Literature and History BA	QV31	AAA–AAB	35–36	139
English Literature with Creative Writing BA	QW38	AAA–AAB	35–36	140
Environmental Science BSc	F850	ABB	34	144
Environmental Science with Placement BSc	F851	ABB	34	144
Environmental Sciences (Agricultural and Environmental Science) MEnvSci	F8D4	ABB	34	145
Environmental Sciences (Agricultural and Environmental Science) with Placement MEnvSci	FD84	ABB	34	145
Environmental Sciences (Clean Technology) MEnvSci	F8H8	ABB	34	145
Environmental Sciences (Clean Technology) with Placement MEnvSci	FH88	ABB	34	145
Environmental Sciences (Ecosystem Management) MEnvSci	F8C1	ABB	34	145
Environmental Sciences (Ecosystem Management) with Placement MEnvSci	FC81	ABB	34	145
Environmental Sciences (Environmental Geochemistry) MEnvSci	F8F6	ABB	34	145
Environmental Sciences (Environmental Geochemistry) with Placement MEnvSci	FF86	ABB	34	145
F				
Film and Media BA	P303	ABB	32	181
Film Practices BA	P313	ABB	32	181
Fine Art BA	W150	AAB–BBB	32–35	148
Folk and Traditional Music BA	W344	AAB–BBB	32–34	196
Food and Human Nutrition BSc	B4D6	AAB–ABB	32–34	200
Food Business Management and Marketing BSc	ND61	Please see page 63		63
G				
Geographic Information Science BSc	F862	ABB	34	153
Geographic Information Science with Year in Industry BSc	F867	ABB	34	153
Geography BA	L701	AAB–ABB	32–35	152
Geography BSc	F800	AAB–ABB	32–35	152
Geography and Planning BA	LK74	ABB–BBB	30–32	153
Government and European Union Studies BA	L241	AAA–ABB	32–34	212
H				
History BA	V100	AAA–AAB	35–37	156
History and Archaeology BA	VV41	ABB	32	71
I				
International Business Management BSc	N121	AAB	35	88
International Business Management with Placement BSc	N120	AAB	35	88
International Business Management BSc (London campus)	N122	AAB	35	55
International Business Management with Foundation Year BSc (London campus)	N124	N/A	N/A	54
International Business Management with Placement BSc (London campus)	N123	AAB	35	55
International Marketing and Management BSc (London campus)	N5N2	AAB	35	55
International Marketing and Management with Foundation Year BSc (London campus)	N5N5	N/A	N/A	54
International Marketing and Management with Placement BSc (London campus)	N5N3	AAB	35	55

Degrees	UCAS	A Level	IB	Page
J				
Japanese Studies BA	TT12	ABB–BBB	32	192
Journalism, Media and Culture BA	P500	AAB	34	182
L				
Law LLB	M101	AAA	34	158
Linguistics BA	Q100	AAA–ABB	34–36	140
Linguistics with Chinese or Japanese BA	Q1T4	AAA–ABB	34–36	141
Linguistics with French BA	Q1R1	AAA–ABB	34–36	141
Linguistics with German BA	Q1R2	AAA–ABB	34–36	141
Linguistics with Spanish BA	Q1R4	AAA–ABB	34–36	141
M				
Marine Biology BSc	C161	AAB–ABB	34–35	160
Marine Biology and Oceanography BSc	CF17	AAB–ABB	34–35	161
Marine Technology with Foundation Year BEng	J615	AAA–AAB	35–37	49
Marine Technology with Foundation Year MEng	J616	AAA–AAB	35–37	49
Marine Technology with Marine Engineering BEng	H504	AAB	35	164
Marine Technology with Marine Engineering MEng	H501	AAA	37	164
Marine Technology with Naval Architecture BEng	H502	AAB	35	164
Marine Technology with Naval Architecture MEng	H503	AAA	37	164
Marine Technology with Offshore Engineering BEng	H355	AAB	35	165
Marine Technology with Offshore Engineering MEng	H356	AAA	37	165
Marine Technology with Small Craft Technology BEng	H520	AAB	35	165
Marine Technology with Small Craft Technology MEng	H524	AAA	37	165
Marine Zoology BSc	C350	AAB–ABB	34–35	161
Marketing BSc	N500	AAB	35	168
Marketing and Management BSc	NN52	AAB	35	168
Mathematical Sciences with Foundation Year BSc	G101	N/A	N/A	48
Mathematics BSc	G100	AAA/A*AB/AAB/A*BB	35–37	171
Mathematics MMath	G103	AAA/A*AB/AAB/A*BB	37	171
Mathematics and Psychology BSc	CG81	AAA–ABB	35	172
Mathematics and Statistics BSc	GG13	AAA/A*AB/AAB/A*BB	35–37	171
Mathematics and Statistics MMathStat	GGC3	AAA/A*AB/AAB/A*BB	37	171
Mathematics with Finance BSc	G1N3	AAA/A*AB/AAB/A*BB	35–37	172
Mathematics with Management BSc	G1N2	AAA/A*AB/AAB/A*BB	35–37	172
Mechanical and Low Carbon Transport Engineering MEng	H390	AAA	37	177
Mechanical Design and Manufacturing Engineering BEng	HH73	AAB	35	177
Mechanical Design and Manufacturing Engineering MEng	HH37	AAA	37	177
Mechanical Engineering BEng	H300	AAB	35	176
Mechanical Engineering MEng	H301	AAA	37	176
Mechanical Engineering with Biomedical Engineering MEng	H3H8	AAA	37	178
Mechanical Engineering with Energy MEng	H3H2	AAA	37	178
Mechanical Engineering with Foundation Year BEng	H304	AAA–AAB	35–37	49
Mechanical Engineering with Foundation Year MEng	H305	AAA–AAB	35–37	49
Mechanical Engineering with Mechatronics MEng	H3H6	AAA	37	178
Media, Communication and Cultural Studies BA	PQL0	AAB	34	182
Medical Science (Deferred Choice) BSc	B902	AAA–AAB	34–35	83
Medicine and Surgery MB BS	A100	AAA	38	186
Medicine and Surgery (Accelerated Programme) MB BS	A101	See page 184	N/A	187
Microelectronic Engineering BEng	H611	AAB	35	135
Microelectronic Engineering with Industrial Project MEng	H612	AAA	37	135
Modern Languages BA	T901	ABB–BBB	32	190

Degrees	UCAS	A Level	IB	Page
M (continued)				
Modern Languages and Business Studies BA	TN92	ABB–BBB	32	191
Modern Languages and Linguistics BA	QT19	ABB–BBB	32	191
Modern Languages, Translation and Interpreting BA	R9Q9	ABB	32	192
Music BA	W300	ABB–BBB	32	197
Music BMus	W304	AAB–ABB	34	197
N				
Nutrition and Psychology BSc	BC48	AAA–AAB	35	201
Nutrition with Food Marketing BSc	BD46	AAB-ABB	32–34	201
Nutrition with Food Marketing with Placement BSc	BD64	AAB-ABB	32–34	201
O				
Oral and Dental Health Sciences BSc	A207	ABB	34	121
P				
Pharmacology BSc	B210	AAA–AAB	34–35	84
Pharmacy MPharm	B230	AAB	36	204
Philosophy BA	V500	AAB–ABB	32	206
Physical Geography BSc	FH82	ABB	32	152
Physics BSc	F300	AAB	35–37	208
Physics MPhys	F303	AAA	37	208
Physics with Foundation Year BSc	F304	N/A	N/A	48
Physics with Foundation Year MPhys	F305	N/A	N/A	48
Physiological Sciences BSc	B100	AAA–AAB	34–35	84
Planning (Master of) MPlan	K400	ABB–BBC	28–32	229
Politics BA	L200	AAA–ABB	32–34	211
Politics and Economics BA	LL21	AAA–ABB	32–34	212
Politics and History BA	VL12	AAA–AAB	35	156
Politics and Sociology BA	LL32	ABB–BBB	30–32	218
Portuguese, see Spanish, Portuguese and Latin American Studies BA	RT47	ABB–BBB	32	192
Psychology BSc	C800	AAA–AAB	35	215
R				
Rural Studies BSc	D452	ABB–BBB	32–34	145
S				
Sociology BA	L300	ABB–BBB	30–32	218
Spanish, Portuguese and Latin American Studies BA	RT47	ABB–BBB	32	192
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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 2018 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 2017. 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 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**

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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 40,000 visitors a year. 95% of our visitors in 2016 said they were more likely or as likely to apply after visiting us! **www.ncl.ac.uk/openday**

30 June
1 July
16 September
2017

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
- **Accommodation tours** – five sites available to book and view weekly from November to May
- **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 map 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!
- **International visitors** – the International Recruitment Team are happy to meet with individuals or small groups who are unable to access the above opportunities due to scheduling
- **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 recruitment events** – we regularly travel overseas to meet prospective students. The events we attend are listed at **www.ncl.ac.uk/international/meet-us**

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

Newcastle University

Student Services

Newcastle University, King's Gate
Newcastle upon Tyne NE1 7RU
United Kingdom

Further information

Enquire online: www.ncl.ac.uk/enquiries
Telephone: 0191 208 3333 (+44 191 208 3333)

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