http://www.ncl.ac.uk/lovenewcastle/

http://www.ncl.ac.uk/lovenewcastle/undergraduate-life/

http://www.ncl.ac.uk/biomed/about/northeast/
Dr Andy Knight
Admissions Tutor
biomed.ugadmin@ncl.ac.uk
Teaching on all of our programmes is delivered by staff from our world leading Research Institutes.
Teaching Excellence Framework (TEF) Gold Award

- Consistently outstanding teaching, learning and outcomes for students from all backgrounds
- Investment in high quality facilities
- Commitment to enhancing students’ employability
BSc (Hons) Programmes

- Biomedical Genetics (B901)
- Biochemistry (C700)
- Pharmacology (B210)
- Physiological Sciences (B100)
- Biomedical Sciences (B940)

all can be taken with Professional Placement Year or Study Abroad Year (between 2/3\textsuperscript{rd} year i.e. 4 year course)
MSci Programmes
(4 year courses)

- **Biomedical Genetics (B903)**
- **Biochemistry (C701)**
- **Biomedical Sciences (B900)**

- Aims to prepare students for research and other laboratory-based careers
- Increased focus on laboratory skills: two thirds of final year spent on research project
- Study advanced Masters-level research-based modules
- Either direct entry (UCAS Code: B900, B903, C701) or transfer to these programmes is possible up to the end of the first semester in year 2 of the BSc.
Biomedical Genetics

The study of inheritance

- How our DNA helps determine our individual characteristics and how mutations and changes can lead to disease

**Rare Disease Research**

Prof. John Sayer

Newcastle University is a key player in the new era of rare disease research. 1 in 17 people will be affected by a rare disease.

We aim to treat these human diseases by developing and implementing new therapies. Key areas are neuromuscular diseases, cancers and kidney conditions.

The 100,000 Genomes Project, which focuses on rare genetic diseases and has been embraced by Newcastle, will allow our researchers to make new genetic diagnoses and discover novel treatments.
Biochemistry

The study of the molecular basis of living processes

- How chemical processes occur within living organisms
- How genes and proteins regulate cells, tissues and organisms

Zipping together meiotic chromosomes

Dr Owen Davies

The formation of germ cells by meiotic cell division involves a unique process in which chromosomes exchange genetic material to enhance diversity and then segregated to half the chromosome number. This is achieved by a giant protein assembly, the synaptonemal complex, which acts as a molecular ‘zipper’ to bind together chromosome pairs and mediate crossing over. We are researching the structure of the synaptonemal complex and its function in crossing over. We aim to establish how errors in its formation and function lead to infertility and miscarriage.
Pharmacology

The study of biologically-active compounds (drugs)

- How drugs act on the body and how the body acts on drugs
- Toxicity

Personalised Medicine
Professor Ann Daly

Some drugs occasionally cause unwanted side effects in a small number of patients. Can we predict which patients are at risk of side effects, by testing their genetic profile, and offer a personally tailored treatment?

Prof. Daly and her team are part of an international project trying to find the answer to this important question. Pharmacogenetics is the study of how genetic profile can influence the effects drugs have on an organism. In 2017 Prof. Daly became to first female recipient of the International Society for the Study of Xenobiotics (ISSX) European Scientific Achievement Award for her work in this field.
Physiological Sciences

- Investigates how cells, tissues and organs function and integrate to form a healthy human body.
- The control mechanisms and how the body responds to changes in the environment.
- Discusses exercise physiology

Fat-reducing Seaweed
Professor Jeff Pearson

Obesity is a major health concern in the UK. Researchers in the Institute for Cell and Molecular Biosciences are determining if natural extracts from seaweed that are effective in preventing the body from digesting and absorbing fats can be used as food supplements to help weight management.
Biomedical Sciences

How the body functions in health and disease

- Multidisciplinary: combines the various disciplines to help us understand human health and disease

Improving transplantation success
Prof. Andy Fisher

Prof. Fisher leads a team of investigators in the NIHR Blood & Transplant Research Unit based at Newcastle University investigating new ways of preparing donor organs for transplantation. By manipulating the immune system, this process, known as “ex-vivo organ perfusion”, has been shown to improve organ function and thus improve outcomes for patients receiving lung transplants.
The Academic Year

2 semesters per year
120 credits per year

Semester 1: September–January
- 1 Week Induction
- 12 Weeks Teaching
- 2 Weeks Examinations

Semester 2: February–June
- 12 Weeks Teaching
- 3 Weeks Examinations

Biochemistry seminar – students playing “Biomonopoly”
Programme Structure

2 semesters per year - 120 credits per year

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- Common taught modules
- Degree Specific modules
- Research project
- Master’s level modules + Research project
- Research project

Students can swap between degrees up to this point
Students can take professional placement year or study abroad year
Final Year Projects

- Research module in Semester 2
  - Laboratory/clinical-based ‘wet’ projects
  - Computer-based bioinformatics or large-scale data analysis ‘damp’ projects
  - Literature-based meta-analysis ‘dry’ projects
  - School-based pedagogic projects
Transfer to Medicine or Dentistry

A transfer at the end of first year may be possible, entry is competitive and 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.

http://www.ncl.ac.uk/sme/study/undergraduate/admissions/biomed-transfer/
http://www.ncl.ac.uk/dental/study/undergraduate (Dental Admissions Policy Document)

- Need a minimum average Stage 1 mark of 75% across Semester 1 modules (no less than 65% for any one module)
- A minimum average of 75% across all Stage 1 modules
- The UKCAT provided at time of application will be used to rank eligible applications to select for interview
- No offer for transfer will be made to anyone without interview
- Alternatively graduate entry for medicine is available at Newcastle University
Typical entry requirements

- **A levels:** AAB, two science subjects including Biology or Chemistry

- **GCSE Maths** and **English Language** required (minimum Grade B/6) if not offered at A2 or AS level

- **IB 35** with Biology and Chemistry at Higher Level Grade 5 or above. Standard level Mathematics or Mathematical Studies required at grade 4 if not offered at Higher Level

**400 places available**

Other qualifications are accepted. Please contact a member of the admissions team: Biomed.Ugadmin@ncl.ac.uk
Major features

- Learn about each of the degree programme subjects in 1st year
- Opportunity to swap degrees based on informed choice
- Emphasis on practical skills (required by employers)
- Taught by world leading researchers who are experts in their field
- Opportunity to engage in “real” research

- Marks in 1st year do not count toward your degree classification
- 2nd year marks account for 1/3 of your degree
- Final year marks account for 2/3 of your degree

- >85% of our students achieve a 1st or 2:1
School of Biomedical Sciences

Skills, Employability and Student Support

Dr Debbie Bevitt/Dr Lindsey Ferrie
Head of School/Degree Programme Director
biomed.ugadmin@ncl.ac.uk
Our Strategic Plan....

“...to provide an environment that supports all of our students in achieving their maximum potential and delivers an excellent student experience”.

Our track record....

High NSS overall satisfaction scores

2016: Biomedical Sciences 98%, Pharmacology 100%, Genetics 100%
2017: Biochemistry 100%
2018: Physiological Sciences 100%
How we **support** our students - Personal and Wellbeing

- **Each student is assigned a peer mentor**
  - Mentors are Stage 2 and 3 BMS students
  - Introduced before the university term starts
  - Run timetabled support sessions and even take students out for a snack!

- **Dedicated team of Equality, Diversity and Inclusion (EDI) student representatives**
How we support our students - Personal and Wellbeing

• **Student Wellbeing**
  - Fees and funding: bursaries, scholarships, hardship, budgeting
  - Counselling and mental health
  - Disability, learning difficulties: dyslexia and dyspraxia
  - Healthcare and medical matters

• **Student Advice Centre**
  - Legal, financial, accommodation, employment, personal

[http://www.ncl.ac.uk/students/wellbeing](http://www.ncl.ac.uk/students/wellbeing)
How we support our students – Academic and Personal

• Each student is assigned a personal tutor
  • Meet with tutor at start of course and at least once a semester after that
  • First point of contact throughout the degree programme for any problems
  • Can change tutor on request

• Back-up system of course advisers
  • Call in students if there appears to be problems (e.g. missing classes or coursework)
  • Study skills advice to students having difficulties

• Additional specialist help available from a study skills adviser
Hosted by Newcastle University Students’ Union, the TEAs asks students to recognise the amazing achievements of staff throughout the University who have provided outstanding teaching or support.

Huge congratulations to Dr Lindsey Ferrie who was awarded a Teaching Excellence Award for Outstanding contribution to Pastoral Support in 2019.

The following members of staff were also nominated for an award in 2019.

- **Dr Alison Howard**, Research Supervisor of the Year, Outstanding Contribution to Pastoral Support
- **Dr Andrew Knight**, Contribution to Teaching - Faculty of Medical Sciences
- **Dr Beth Lawry**, Outstanding Contribution to Teaching, Outstanding Contribution to Pastoral Support, Outstanding Contribution to Student Employability
- **Dr Catherine Meplan**, Outstanding Contribution to Teaching - Faculty of Medical Sciences
- **Dr Damian Parry**, Outstanding Contribution to Equality, Diversity and Inclusivity
- **Dr Jeremy Brown**, Outstanding Contribution to Pastoral Support
- **Dr Tom Clifford**, Outstanding Contribution to Teaching - Faculty of Medical Sciences
How we support our students – Academically

Blackboard® and ReCap

• Teaching material (lectures, module guides, extra reading etc) provided on the University Virtual Learning Environment - Blackboard.

• We ask all staff to ReCap their lectures. This is an automated event recording and delivery system that enables the audio and visual material from events such as lectures/seminars to be made available through Blackboard.
**Vocational skills development**

*All students can select a final year research project aligned to a vocation*
- Research Laboratory
- Clinical
- IT
- Science education/communication

*All students can select an additional 3rd year vocational module*
- Research in .................
- Healthcare Organisation and Practice
- Bioethics
- Science communication
- Business for the Bioscientist
- Bioinformatics
Placement Opportunities

- Vacation studentships
- Professional placement year
- Overseas exchanges (Europe, Australia, Singapore) and study abroad year
- Links to companies (including spin-offs)
- Newcastle Work Experience (NWE) placements

Read our students stories at:
https://www.ncl.ac.uk/biomed/current-students/vacation-studentships/
https://www.ncl.ac.uk/biomed/current-students/development/industrial-placements/
We have agreements with

- Università Paul Sabatier, Toulouse (France)
- Università Pierre et Marie Curie, Paris (France)
- Eberhard Karls Universität Tübingen (Germany)
- Lund University (Sweden)
- Leiden University (Netherlands)
- Westphalian Wilhelms University in Münster (Germany)

Esme, Biomedical Sciences
Exchange into our Biomedical Sciences degree at our Malaysian Campus (NUMed), Stage 2
Semester 2

Jamie, Lund University, Sweden

Nisha and Kayleigh – final year students at PRBB Research Centre Universitat Pompeu Fabra in Barcelona (top University in Spain).
Both completed their final year projects in Spain on Erasmus funded scholarships.
Extra-Curricular Opportunities

• Laboratory Assistant Posts
  (Part-time paid work in research labs in year 2)

• Student Mentor Posts

• Employability Ambassador

• Biomedicine+

• Language Modules

• SOLAR

• Street Scientist

• Ncl+ Award
Employability in the School of Biomedical Sciences

- Biomed Back for the future
- Employer presentations
- Employability Ambassadors
- Bespoke support sessions for:
  - Postgraduate study
  - Applying for Medicine
  - Voluntary work with Go Volunteer

- Award-winning University Careers Service
  - [http://www.ncl.ac.uk/careers/](http://www.ncl.ac.uk/careers/)
Graduate Success in Biomedicine

98% of students in work or further study 6 months after graduation (Biomedical Sciences DLHE 2017)

~50% of our graduates go on to further study

- Higher science degree (Masters or a PhD)
- Medicine
- Dentistry
- PGCE (Postgraduate Certificate in Education)
- A small number of other courses
Careers for Bioscientists

Graduates are highly employable in a wide range of careers including:

- **Laboratory scientists** (hospitals, universities and research institutes, industry)
- **Science communicators** (journalism, medical writing, PR work, medical charities, museums/science centres etc.)
- Teachers
- **Other roles in industry** (marketing, medical sales, brand management)
- Patent work
- Science funding, policy and administration
So why choose us?

• Excellent student experience
• Wide choice of degree programmes
  • Flexible: can change your programme of study after first year
  • Transfer options for medicine and dentistry
• High quality research-led teaching
• High graduate employability, low drop out rates
• Great city
• Happy students