Course Summary: March 29, 2026

Biomedical Sciences MSci Honours

- UCAS code: **B900**
- Full time
- 4 years

The accredited four-year Biomedical Sciences integrated master's provides you with experience in a professional research environment to ensure you're work-ready when you graduate.

You are currently viewing course information for entry year: **2026**

Next start date:

- September 2026

Tuition fees (Year 1)

- Home: **£9,790**
- International: **£30,900**

Entry requirements and offers

- A-Level: **AAB**
- IB: **34 points**

UCAS Institution name and code:

- NEWC / N21

Undergraduate Open Day

Start your university journey. Find where you belong. Friday, June 26 (9:00-16:00) Saturday, June 27 (9:00-16:00)

Book your place now

Course overview

This degree was designed with employers in mind, and develops your understanding of how the human body functions in health and disease and equips you with the practical research experience you need. You will graduate well prepared to make a difference in modern medicine.

We're a National Centre of Excellence in biomedical research and our world-leading expert staff will guide you through your degree. This means you graduate with the latest knowledge in human health and disease.

You'll explore the links between:

- anatomy
- biochemistry
- genetics
- immunology
- microbiology
- neuroscience
- pharmacology
- physiology

By gaining an understanding of research in these areas, you'll learn how we can develop either preventative approaches or new treatments for a range of common diseases, such as Alzheimer's, autoimmunity, cancer, and diabetes.

BSc or MSci?

Some of our degrees are offered at two levels:

- three-year Bachelor of Science (BSc)
- four-year Master in Science (MSci)

Our MSci degrees include an additional year of advanced study at master's level, where you will gain additional research and practical experience to increase your employability and have the opportunity to work alongside our world-leading experts.

Your course and study experience - disclaimers and terms and conditions
Please rest assured we make all reasonable efforts to provide you with the programmes, services and facilities described. However, it may be necessary to make changes due to significant disruption, for example in response to Covid-19.

View our Academic experience page, which gives information about your Newcastle University study experience for the academic year 2025-26.

See our terms and conditions and student complaints information, which gives details of circumstances that may lead to changes to programmes, modules or University services.

Quality and ranking

Professional accreditation and recognition

All professional accreditations are reviewed regularly by their professional body.

Additional information

Transfer to our Medicine or Dentistry degrees

There is flexibility to transfer between our degree programmes at the end of the first year if you find your interests change.

You can also apply to transfer to our Medicine or Dentistry degree. This opportunity is open to UK, EU and international students. It is competitive, with a limited number of places available. Students are selected on the basis of academic performance in the first year, a UCAT score, a personal statement and, if shortlisted, an interview.

Find out about transferring courses

Modules and learning

Modules

The information below is intended to provide an example of what you will study.

Most degrees are divided into stages. Each stage lasts for one academic year, and you'll complete modules totalling 120 credits by the end of each stage.

Our teaching is informed by research. Course content may change periodically to reflect developments in the discipline, the requirements of external bodies and partners, and student feedback.

Optional module availability
Student demand for optional modules may affect availability.

Full details of the modules on offer will be published through the Programme Regulations and Specifications ahead of each academic year. This usually happens in May.

To find out more please see our terms and conditions

The first two semesters of our programme and subsequent core modules are designed to give students a core knowledge and understanding of biomedical sciences. The rest of the programme aims to develop students' knowledge of the breadth and scope of biomedical sciences, with exciting modules in cutting-edge areas, and an in-depth knowledge of research skills.

Stage 1

You're introduced to biomolecular sciences through a series of modules.

These modules will be active for those students starting the programme in September 2026.

Compulsory modules	Credits
Molecules of Life	20
Infectious Threats: past, present and future	20
Core Skills in Biosciences	20
Core Concepts in Biosciences	20
Therapeutic Mechanisms	20
Cells to Systems	20

These modules will be active for those students starting the programme in September 2026.

Compulsory modules	Credits

Skills for Bioscientists: Techniques, Tools, and Applications	20
Genomics and Gene expression in Disease	20
Anatomy and Cellular Systems	20

You'll take **one optional module** from each of the following lists.

List 1A:

Optional modules	Credits
Control of Physiological Systems	20
Factors affecting Pharmacokinetics and Drug Disposition	20
Neuroscience: Essentials and Beyond	20
Microbial Mechanisms of Human Pathogenesis	20
Proteins: Structure, Function and Biochemistry	20

List 2A:

Optional modules	Credits
Chromosome Biology in Development and Disease	20
Bacterial Cell and Molecular Biology	20
Human Reproduction and Fertility	20
Introduction to Population and Public Health	20
Mitochondrial Biology and Function	20

Optional modules	Credits
Sensory Motor, and Cognitive Neuroscience	20
Principles of Cancer	20
Biochemistry of Gene Expression	20

List 2B:

Optional modules	Credits
Bioinformatics for Biosciences	20
Cell Signalling in Health and Disease	20
Immunology of Health and Disease	20
Microbial Genomics and Genome Mining	20
Nature's Tinkerer: Mechanisms of Evolutionary Change	20
Protein Trafficking: Mechanisms and Roles in Disease	20
Business Enterprise for Bioscientists	20
Respiration and Digestion: Global challenges in Health and Disease	20

You will undertake an extended individual research project which begins in the final semester of Stage 3 and continues throughout your final year. Alongside this you will have an extensive choice of optional modules to help you tailor your degree to your interests.

These modules will be active for those students starting the programme in September 2026.

Compulsory modules	Credits

Becoming a Bioscientist: Skills for Research and Beyond	20
Research Project for Stage 3 MSci	40

You take **one optional module** from each of the following lists:

List A:

Optional modules	Credits
Rare diseases genetic variants to physiological function and therapies	20
Microbiota and Pathogens in Fundamental Research and the Clinic	20
In vivo Research	20
Neurodegenerative and Neurological Disorders of the Nervous System	20
Evolutionary Genomics in Fundamental Research and the Clinic	20
The Application of Bioinformatics Techniques to Biomedical Data	20
The Science of Ageing: From Biological Mechanisms to Societal Impact	20
Therapeutic Applications of Cell Signalling	20
Applied Technologies for Biosciences	20

List B:

Optional modules	Credits
Biomedical Engineering & Biotechnology	20
Cancer Biology and Therapy	20

Optional modules	Credits
Antimicrobials – Mode of action, Discovery, and Resistance	20
Clinical Movement, Balance and Mobility Analysis	20
Bioethics and the Biosciences	20
Molecular Pathology	20
Molecular Oncology and Cancer Therapeutics	20
Neuropharmacology	20
Cardiovascular development and disease	20
Biochemistry of Disease	20

List C:

Optional modules	Credits
Advanced Research Topics in Neuroscience	20
Human Disease Genetics	20
Mitochondrial dysfunction: A driver of rare and common disease	20
Omics and AI for emerging and future biomedicine	20
Patterns and Determinants of Disease in Human Populations	20
Precision Medicine, Genomics and Informatics	20
Translational Bioscience Research	20
Applied Biochemistry for Drug Discovery	20

You will undertake an extended individual research project which begins in the final semester of Stage 3 and continues throughout your final year. Alongside this you will have an extensive choice of optional modules to help you tailor your degree to your interests.

These modules will be active for those students starting the programme in September 2026.

Compulsory modules	Credits
Research Project	80

You choose **two optional modules** from the list below:

Optional modules	Credits
The Biological Study of Behaviour	20
Ageing & Health	20
Experimental Medicine & Therapeutics	20
Drug Discovery & Development	20
Cancer Studies	20
Chromosome Biology and Cell Cycle Control in Health and Disease	20
Clinical Epidemiology	20
The Biological Basis of Psychiatric Illness & its Treatment	20
Biology of Ageing	20
Applied Immunobiology of Human Disease	20
Molecular Microbiology	20
Biomolecular Research in Health and Disease	20
Sensory Systems	20
Scientific Basis of Neurological Disorders	20
Regenerative Medicine & Stem Cells	20
Transplantation Sciences	20

Optional modules	Credits
Genetic Medicine	20
Mitochondrial Biology and Medicine	20
Diabetes	20
Cardiovascular Science in Health and Disease	20
Bioscience Research Development and Enterprise	20
Comparative Cognition: Information Processing in Humans and Other Animals	20
Exercise in Health and Disease	20
Drug Delivery and Nanomedicine	20
Human Health and the Impact of Microbial Genomics	20
Therapeutic Applications of Cell Signalling Pathways	20
Bioinformatics for Biomedical Scientists	20
Mechanisms in Genetic Disease: from Genotype to Phenotype	20

Teaching and assessment

Teaching methods

You'll learn through a combination of lectures, practical laboratory classes and small group seminars.

You'll have the chance to attend optional research talks, aimed especially at first-year students, as part of our biomedicine+ programme.

Teaching methods may vary from module to module.

Assessment methods

You'll be assessed through a combination of:

- Assessments
- Case studies
- Coursework
- Dissertation or research project
- Essays
- Examinations – practical or online
- Group work
- Practical sessions
- Presentations
- Reports
- Seminar tasks/exercises

Skills and experience

Practical skills

You'll have the opportunity to work alongside industry-recognised scientists in our research institutes while you complete research projects in your third and fourth years.

This will allow you to develop advanced research and scientific skills, while also getting an insight into a career as a researcher.

Professional skills

Our programme has been designed with your future career path in mind, alongside employers. We make sure you have plenty of opportunities to gain

work experience to enhance your employability while studying. This includes:

- vacation studentships in a University research laboratory
- paid work in one of our research institutes through our Laboratory Assistant Scheme
- employability ambassador scheme
- student mentoring scheme

Research skills

As a National Centre of Excellence in biomedical research, you're guaranteed an education right at the cutting edge of the discipline, so you'll always be aware of the latest developments and innovations in the field.

Opportunities

Study abroad

Experience life in another country by choosing to study abroad as part of your degree. We offer a wide range of destinations and opportunities for students, and we can help you decide which option would work for you (including free language courses before you go, and helping you apply for funding). You'll be encouraged to embrace fun and challenging experiences, make connections with new communities and graduate as a globally aware professional, ready for your future.

You can choose to spend up to a year studying at a partner institution overseas. You can even take a summer placement in an overseas research laboratory.

Find out more about study abroad

Work placement

Get career ready with a work placement and leave as a confident professional in your field. You can apply to spend 9 to 12 months working in any organisation in the world, and receive University support from our dedicated team to secure

your dream placement. Work placements take place between stages 2 and 3.

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

If you choose to take a work placement, it will extend your degree by a year, and your degree title will show you have achieved the placement year. A work placement is not available if you're spending a year studying abroad. Placements are subject to availability.

Find out more about work placements

Facilities and environment

Facilities

You'll be based in the School of Biomedical, Nutritional and Sport Sciences in the Faculty of Medical Sciences at our city-centre campus. The Faculty is also home to Dentistry, Medicine, Psychology and Pharmacy, making it a vibrant environment for learning and research.

Our facilities include:

- a dedicated medical library with a wide range of specialist books and journals
- spacious modern teaching laboratories
- hi-tech computer clusters and study spaces
- cutting-edge research laboratories and equipment facilities
- flexible student social spaces
- being less than two minutes' walk of the sports centre

Find out about the School of Biomedical, Nutritional and Sport Sciences

Support

You'll have the support of an academic member of staff as a personal tutor throughout your degree to help with academic and personal issues.

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

We have study skills ambassadors; peers who can help you with your studies including maths support.

We also have Phase Advisors who monitor your academic progress, and in-school Wellbeing Advisors who can help you manage issues affecting you during your studies.

Your future

There is a great demand for graduates in the biomedical and biomolecular sciences within the health services and industry, particularly leading or working as part of research teams, and many of our students choose this career path.

A large proportion of our graduates choose to take a further degree either a medical, master's, PhD or teaching qualification, before embarking on permanent employment.

Recent Biomedical and Biomolecular Sciences BSc and MSci Honours graduates have taken up roles such as:

- clinical specialist
- laboratory analyst
- research technician
- clinical data associate
- trainee clinical scientist
- research PhD student
- medical writer

Work in a range of industries

Sectors employing bioscientists include:

- pharmaceuticals
- biotechnology
- education
- healthcare
- chemical
- cosmetics and toiletries
- food and drink
- scientific writing
- research and development
- patent law
- business analysis
- software engineering
- clinical trials management

Find out more about the career options for Biomedical and Biomolecular Sciences from Prospects: The UK's Official Careers Website.

Learn about the careers our graduates have pursued on the School of Biomedical, Nutritional and Sport Sciences website.

Make a difference

Careers support

Throughout your studies, there will be many opportunities to engage with industry including:

- site visits
- guest lectures
- employability fairs
- industrial placements
- internships
- advice from industry

Develop your employability with the support of the School through:

- summer placements
- internship opportunities
- opportunities to participate in clinical work shadowing
- becoming a student rep or ambassador
- mock interviews
- CV interviews
- careers clinics
- earning open badges
- enterprise challenge events
- assistance with applying to medicine/dentistry/postgraduate study

Our Careers Service is one of the largest and best in the country, and we have strong links with employers. We provide an extensive range of opportunities to all students through our ncl+ initiative.

Visit our Careers Service website

Recognition of professional qualifications outside of the UK

If you're studying an **accredited degree** and thinking about working in Europe after you graduate, the best place to find current information is the UK Government's guidance on recognition of UK professional qualifications in EU member states. This official resource explains whether your profession is regulated in another country, what steps you need to take, and which organisation you should contact.

Find out more...

- Go online for information about our full range of degrees: **www.ncl.ac.uk/undergraduate**
- Watch videos about student life in Newcastle by visiting our YouTube channel at **www.youtube.com/@newcastleuni**
- Watch a virtual tour of our campus at **https://youtu.be/vJUfHcqB7l8?si=8IUrf7kTxXbgdfr1**
- Book for an Open Day to come and see us in person **www.ncl.ac.uk/openday**
- Contact us online at **www.ncl.ac.uk/enquiries** or phone +44 (0)191 208 3333

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