University of Birmingham

Medical Science BMedSc

Details

Our Medical Science programme is delivered by staff in the College of Medical and Dental Sciences. You'll be taught by experts who cover all the major disciplines of Medical Science. We are modifying our course from 2014, so that you'll follow a broad curriculum in the first and second year, with some choice in the second year to work on a topic of particular interest to you. Year 1 and 2 will allow you to create a strong foundation for further specialisation in the third year, when you'll complete your studies by undertaking an original research project and gain hands-on experience in one of the College research laboratories.

First and second year – broad foundations of knowledge

The first two years of the course builds a detailed understanding of how the human body functions and what can go wrong in disease. The content extends from the single cell to the whole body. You'll begin to learn about major pathologies such as cancer, cardiovascular disease, neurodegenerative disease, arthritis and diabetes, and the genetic basis of inherited disorders.
All students take a common set of key subjects which will provide you with the core knowledge to understand the importance of each of the major disciplines of medical science. This forms a strong foundation for your final year. In addition, throughout the course you'll develop core research skills, such as data analysis and interpretation, helping you develop an understanding of the key ethical and social issues surrounding medical science.

In the second year there will be an opportunity to specialise in a scientific area of your choice, linked to our College major research themes. This student selected component will allow an in-depth exploration of the area under the guidance of one of our subject experts. The themes will include cancer, neuroscience, infection and immunity, pharmacology and cardiovascular science. This will provide a platform for further specialisation in your third year.

At the end of your second year there is the possibility of taking a year out to gain work experience, by securing a placement in, for example, the pharmaceutical industry. You may also opt to undertake a summer research project within the College, for which funding is available.

Third year – follow your interest

During the first term of your final year you specialise by selecting two taught options from over 20 specialist modules in a wide range of subject areas, including different aspects of neuroscience, cancer, virology, cardiovascular science, pharmacology, endocrinology, stem cell biology, ageing and immunology. You'll learn about the latest findings and be exposed to advanced research techniques, guided by internationally recognised experts in these fields.

These taught options lead on to a substantial research project in the spring term, which in the majority of cases is laboratory based specifically within one of our leading research active laboratories. You'll work independently, under supervision, for ten weeks full-time on an original piece of research, acquiring and analysing your own data. The project develops and enhances not just your practical and analytical abilities, but also a range of other skills that will be a key to success in whatever career path you choose.

Why study this course

The Medical Science programme benefits greatly from the very active research environment at Birmingham. The course has been developed, and is taught by, academics who are recognised experts in their field and who make sure that Medical Science at Birmingham stays up-to-date and that the teaching is of the higest quality. The College of Medical and Dental Sciences has a research income in excess of £50 million per annum, with several major centres focusing on areas that are at the forefront of medical science, including cancer, diabetes, stem cell biology, immunity and inflammatory disease, infection, cardiovascular science and ageing.

In the last Research Assessment Exercise (RAE 2008) much of this research was rated as internationally excellent and world leading, with most of the remainder being internationally recognised. Notably, Birmingham has the first Cancer Research UK Centre, and was named as the leading cancer studies centre outside London, second only to the Institute of Cancer Research (RAE 2008).

The course develops a wide range of skills that employers are looking for in graduates. Practicals run in state-of-the-art laboratories allow you to gain hands-on experience in all subject areas, including: the capture and analysis of physiological measurements in the areas of cardiovascular, respiratory and neuroscience; use of electrophoresis and PCR equipment for molecular biology; and using microscopes and tissue culture for cell biology. We also offer a range of curriculum activities specifically designed to build IT, communication, organisational, group, problem-solving and analytical skills, equipping you for further study or employment in a wide range of careers.

Modules

Please use the following links to find out all module information including description, learning outcomes, assessment and hours:

Year 1 - Curriculum (/Documents/college-mds/courses/undergraduate/bmedsc-medical-science/2014/year-one-curriculum-2014.pdf)
Year 2 - Curriculum (/Documents/college-mds/courses/undergraduate/bmedsc-medical-science/2014/year-two-curriculum-2014.pdf)

Year 3 - Curriculum (/Documents/college-mds/courses/undergraduate/bmedsc-medical-science/2014/year-three-curriculum-2014.pdf)

Year 3 - Option 1 modules (/Documents/college-mds/courses/undergraduate/bmedsc-medical-science/2014/year-three-combined-option1-modules-2014.pdf)

Year 3 - Option 2 modules (/Documents/college-mds/courses/undergraduate/bmedsc-medical-science/2014/year-three-combined-option2-modules-2014.pdf)

Year 3 - Research project (/Documents/college-mds/courses/undergraduate/bmedsc-medical-science/2014/year-three-research-project-2014.pdf)

This is the module list for 2014, but the programme continues to evolve and you should check the website regularly for any changes for next year.

Fees and funding

EU nationals are considered as home students for fee-paying purposes.

Standard fees (http://www.birmingham.ac.uk/students/ug/courses/fees/standard) apply
Learn more about **fees and funding (http://www.birmingham.ac.uk/students/ug/feesandfinance/loans.aspx)**

Scholarships
Learn more about our **scholarships and awards (http://www.birmingham.ac.uk/students/ug/feesandfinance/funding/index.aspx)**

Entry requirements

Number of A levels required: 3

Typical offer: AAB

Required subjects and grades: a minimum of two sciences at A level (From Biology, Chemistry, Physics and Mathematics or Further Mathematics) with at least one at grade A; Biology at AS level or above is advised.

Additional information:

Mathematics, Biology and Chemistry (or combined science) at GCSE level are required at a minimum grade B, if not offered at a higher level.
You will also be expected to offer a reasonable number and range of GCSE subjects at a minimum of grade C, including English Language.

Offers are not made on the basis of tariff points. General Studies and Critical Thinking are not accepted as part of the minimum of three A level subjects. We do not consider any BTEC qualifications.

International Baccalaureate Diploma:

Overall score of 35 points, with minimum grades of 6, 6, 5 in higher level subjects, to include at least two sciences (from Biology, Chemistry, Mathematics and Physics – Maths Studies is excluded) with at least one at grade 6. English and Mathematics at standard level. No less that grade 4 in any subject offered. Extended Essays and Theory of Knowledge will not be counted. Scottish Certificate of Education and Irish Leaving Certificate: Please contact Admissions Tutors for further information.

EU and Overseas qualifications:

We welcome applications from students from the EU and overseas. Please contact Admissions Tutors or Admissions for further information. Standard English language requirements apply.

Mature candidates:

You will be assessed on an individual basis, but will normally will be expected to have equivalent qualifications or experience to those required for the typical standard offer.

International students:

Depending on your chosen course of study, you may also be interested in the Birmingham Foundation Academy, a specially structured programme for international students whose qualifications are not accepted for direct entry to UK universities. Further details can be found on the **foundation academy web pages (http://www.birmingham.ac.uk/students/foundation-academy/Pathways/index.aspx)** .

How to apply

Apply through UCAS at **www.ucas.com (http://www.ucas.com/)**
Learn more about **applying (http://www.birmingham.ac.uk/students/ug/courses/apply)**

Application procedure

All applications are received through UCAS. Those applicants whose interest is in science and whose academic profile meets our minimum requirements will be invited to a Medical Science 'Applicant Visit Day'. This will involve visiting the Medical School, meeting staff and students, viewing our facilities and attending interactive sessions showcasing the research activities of the Medical Science programme. We receive many applications from those whose first choice of course is Medicine. These applications will receive equal consideration.

Key Information Set (KIS)

Key Information Sets (KIS) are comparable sets of information about full- or part-time undergraduate courses and are designed to meet the information needs of prospective students.

All KIS information has been published on the Unistats website and can also be accessed via the small advert, or 'widget', below. On the **Unistats website (http://unistats.direct.gov.uk)** you are able to compare all the KIS data for each course with data for other courses.

The development of Key Information Sets (KIS) formed part of HEFCE's work to enhance the information that is available about higher education. They give you access to reliable and comparable information in order to help you make informed decisions about what and where to study.

The KIS contains information which prospective students have identified as useful, such as student satisfaction, graduate outcomes, learning and teaching activities, assessment methods, tuition fees and student finance, accommodation and professional accreditation.

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