Anne’s perspective

I chose to study Biomedical Science at the University of Sussex because I’d heard that it’s one of the UK’s leading research centres for pre-clinical and human biological sciences and because of its good positioning in the league tables. I was also drawn to the diversity of topics offered by the degree.

‘Having spent just a term at Sussex I believe I’ve made the right choice. There are student mentors on hand to help who have already been through the situations you face on your modules, and academic tutors who are with you through your whole degree. Study ranges from lectures with over 100 students to learning in small tutorial and seminar groups, which are particularly helpful in your first year.

Brighton is also a very student-friendly place and everything is easily accessible, which adds to an enjoyable first year.’

Anne Akintola
BSc in Biomedical Science

Faculty perspective

I organise and teach several subject areas in the BSc Biomedical Science degree, which are related to my area of expertise, Microbiology and Infectious Diseases. The study of infectious diseases is an increasingly popular choice of study at both the undergraduate and postgraduate level. Technological advances coupled with an increasing complexity of infections and the problems of emerging pathogens and drug resistance have added new dimensions to this field of study.

Hence, it is not surprising that this is directly related to specific career paths in the field of medicine, laboratory practice, epidemiology, research and public health.

In the BSc Biomedical Science degree, not only do students get a comprehensive knowledge about microorganisms and several disease states, but they also get an awareness of the current issues in the area of Microbiology. For students who are interested in pursuing this as a future career option, there are several final year laboratory and data analysis projects in which they get the opportunity to work closely with experts in this field.

Prabha Parthasarathy
Teaching Fellow in Microbiology

Guaranteed interviews for applicants for medicine

Two competitive schemes have been introduced for applicants who might ultimately wish to study medicine and who fulfil the necessary criteria. These provide the opportunity to obtain a guaranteed interview for entry into medicine in the Brighton and Sussex Medical School at the end of Year 1 or after graduation. See the online Prospectus for further details of the criteria: www.sussex.ac.uk/study/ug/2015

More questions

See our on-line prospectus at www.sussex.ac.uk/study/ug for more information, including the latest on:

- our typical offer
- how to apply
- fees, scholarships, bursaries and other financial support
- how to arrange to visit us.

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Join the School of Life Sciences

Life Sciences brings together biology, ecology, neuroscience, biochemistry, biomedical science, chemistry, genetics and zoology. Our lecturers are world-class collaborative researchers and bring their leading expertise to teaching on all our degrees.

Biomedical Science

Biomedical science is a broad-based degree that aims to provide an understanding of both the normal functioning of the human body and the molecular basis of diseases. Traditional disciplines underpinning modern medicine, including biochemistry, genetics, cell and molecular biology, pharmacology, anatomy and physiology are combined with more specialised subject areas such as clinical biochemistry, endocrinology, haematology, medical microbiology, virology and immunology to explain how the body responds to disease and the laboratory procedures used to diagnose disease and monitor the effectiveness of any treatment.

Year 1 describes the mechanisms of how cells and our bodies function and introduces you to a number of common human medical conditions, their symptoms and the basis for diagnosis and treatment. Combining this with microbiology and pharmacology allows you to appreciate disease processes and how cellular metabolism and signaling pathways can be modified by drugs.

In Year 2, you will gain a more detailed view of medical microbiology and the principles of drug action, and be introduced to clinical biochemistry, anatomy (including whole body dissection), virology and immunology. As in the first year, there is a strong practical component running throughout the year and we also offer a limited number of summer internships hosted with local companies or in university laboratories.

The optional sandwich year provides you with a year’s experience of working in industry, equipping you with a wide range of transferable and laboratory skills to enhance your employability.

Research project

In the final year you will have access to a wide range of options. You will also join one of our internationally recognised research teams and undertake an extended individual project. This will provide you with a stimulating research opportunity at the forefront of biomedical science.

Professional placement/year abroad

All students can take a sandwich year in which they do a professional placement after the second year. The University provides extensive support in acquiring placements. Students can also study abroad for a year with one of many partner institutions in North America, Europe and Australia.

MSci or BSc

We offer a four-year MSci in Biomedical Science as well as a three-year BSc. The first three years are core to both, but the MSci allows you to develop advanced research skills in your fourth year. The MSci is particularly suited to students wanting to pursue a research-based career, whereas the BSc is ideal for students interested in applying for graduate-entry medicine or for the NHS Scientist Training Programme.

Modules include:

Year 1
- Human Physiology
- Molecular Biology
- Essential Skills in Life Sciences
- Introduction to Human Disease
- Research Methods in Biochemistry
- Biological Chemistry
- Introduction to Metabolism and Pharmacology
- Cell Biology

Year 2
- Haematology and Anatomy
- Cell Regulation and Cancer
- Genetics and Genomics
- Structural Basis of Biological Function
- Virology
- Clinical Biochemistry
- Medical Microbiology
- Combating Disease

Year 3
- Life Sciences Final Year Research project
- A range of options including Cell Signalling, Immunology in Health and Disease, Molecular Genetics, Regulating the Transcriptome, Innovation in Bioscience and Medicine, Endocrinology and Disease, Genomics and Bioinformatics

Year 4 (MSci only)
- Advanced Methods in Molecular Research
- Computation and Quantitative Skills
- Literature Review and Research Proposal
- Research Project
- Current Topics in Biochemistry and Molecular Biology
- Year 3 Option

All modules are subject to change, but were correct at the time of going to press. For up-to-date information, always consult our online prospectus at www.sussex.ac.uk/study/ug

International Foundation Year

An International Foundation Year in Life Sciences and Psychology has been introduced for students from outside the EU whose qualifications don’t meet the University’s general entrance requirements. This gives the opportunity to enhance your English language skills and scientific abilities and will prepare you for any of our degrees.

Teaching, learning and assessment

You will learn through a combination of lectures, workshops, tutorials and small group seminars. You’ll also participate in laboratory practicals, fieldwork and field modules. An academic adviser will be assigned to you and you will have access to a wide range of support and advice services should you need them – including student mentors, undergraduates from the years above you – and the student support team.

Assessment takes a variety of forms suitable for biomedical science, including examinations, practical work and essays and a major project or dissertation at the end of your degree. As well as in-depth knowledge of the facts, concepts, principles and theories associated with your field of study, by the end of your degree you will also be able to analyse and critically assess information and data. Through project work you will have developed time management and communication skills.

Graduate employment

Sussex provides excellent support as you plan your future, through our Careers and Employability Centre. The Biomedical Science degree aims to develop good practical, analytical and transferable skills allowing the interpretation and critical evaluation of biomedical data, attributes essential for a practising Biomedical Scientist. This will enable you to go on to a range of careers in science or scientific research. Recent examples include Novartis pharmaceuticals and the Zoological Society of London.

Typical career paths include:
- postgraduate study with a view to entering medical research in academic and applied research institutes
- medicine and the professions allied to medicine such as nutrition, paramedic training etc
- management of clinical trials
- medical laboratory sciences and research positions in the pharmaceutical industry, hospital laboratories, universities and research institutes
- teaching.

This degree is well suited as a basis for graduate entry to medicine and spans the gap between medicine and biochemistry. It has modules that are jointly taught with NHS Trust clinicians and clinical scientists.