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Chemical Biology and Biomedical Imaging Masters/MSc

Postgraduate degree course in Chemical Biology and Biomedical Imaging Masters/MSc:

A full-time one year interdisciplinary programme suitable for graduates in chemistry, biochemistry, pharmacy and forensic science who wish to tackle challenging problems in life and medical sciences. You will widen your knowledge of Chemistry, applied to Biomedicine, and the Physics & Computer Science of imaging by studying a wide range of our cutting-edge modules.

You will deepen your knowledge and develop your skills of independent working by undertaking a research project that draws on our research strengths. This course is an ideal preparation for PhD study and employment in the healthcare, pharmaceutical and imaging industries.

Study here and find out why the University of Birmingham has been awarded The Times and The Sunday Times University of the Year 2013-14 (http://www.birmingham.ac.uk/news/latest/2013/09/20-sep-Birmingham-announced-as-University-of-the-Year.aspx)

Course fact file

Type of Course: Taught

Study Options: Full time

Duration: 1 year full-time

Start date: September

Related courses

Drug Discovery and Medicinal Chemistry Masters/MSc (/postgraduate/courses/taught/chemistry/drug-discovery-medicinal-chemistry.aspx)

Postgraduate courses - School of Chemistry (/schools/chemistry/postgraduate/index.aspx)

Contact

If you would like further information about the course, please contact:

Admissions Tutor: Professor Michael Hannon
Telephone enquiries: +44 (0)121 414 8808
Email: **psibs@contacts.bham.ac.uk (mailto:psibs@contacts.bham.ac.uk)**

School of Chemistry (/schools/chemistry/index.aspx)

Details

This interdisciplinary Masters programme is suitable for graduates in chemistry, biochemistry, pharmacy and forensic science who wish to tackle challenging problems in life and medical sciences.

The programme, delivered by academic staff and practitioners in hospitals and industry, combines training in:

- Chemistry and physical techniques
- Data modelling and image analysis
- Life science and medicine

Gaining skills and expertise from different sciences and medicine will uniquely position you for careers in the healthcare, pharmaceutical and imaging industries. Our programmes also include cutting edge research projects and offer the opportunity to pursue further Doctoral (PhD) studies.

The programmes are delivered within the PSIBS unit, which is the UK EPSRC Centre of excellence for postgraduate training in Biomedical Imaging, led by Chemical Biology Professor, Mike Hannon.

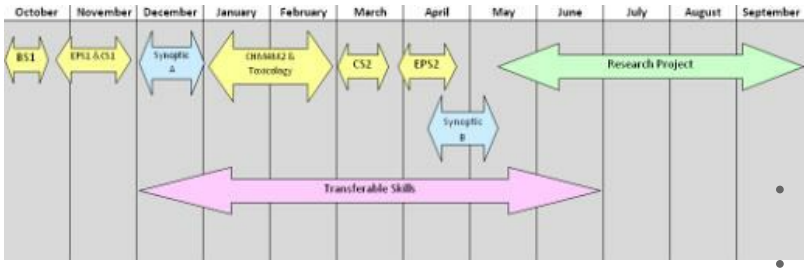
Modules

Students follow a programme that provides the necessary theoretical foundations, laboratory and practical skills for cross-disciplinary research at the Life Sciences Interface. Eight tailor-made taught modules and a research project are combined with training in communication skills, public understanding of science and knowledge transfer.

Module	Module title	Credit
BS1	Bioscience for Engineers	10
EPS1	LM Molecular Probes and Imaging Techniques	10
EPS2	LM Frontiers in Physical Science for Biomedical Imaging	10

CS1	LM Imaging and Image Analysis	10
CS2	LM Computational Tools for Modelling and Analysis	10
CHM4M2	Bio-related Chemistry	10
Toxicology	Molecular and Cellular Mechanisms of Toxicity and Carcinogenesis	20
Synoptic (A & B)	Synoptic and Student Centred Study Module in Chemical Biology and Biomedical Imaging	10
Transferable Skills	LM PSIBS Advanced Professional, Transferable and Research Skills	30
Research Project	Research project	60

Module Schedule



(/postgraduate/courses/taught/chemistry/msc-chemistry-modules-1.jpg)
Click for image larger version

Fees and funding

Tuition fees for home/EU students (2013/2014)

£6,500

Tuition fees for international students (2013/2014)

£16,777

Further funding information

Learn more about**fees and funding (/postgraduate/pgt-fees/fees.aspx)**

Scholarships and studentships

The University of Birmingham is committed to promoting and nurturing excellence. To reward and encourage excellence in entry, we are delighted to be able to offer the following scholarships for 2013 entry on our MSc and MRes programmes.

Students attracting overseas fees

A £3,000 scholarship will be awarded to a number of privately funded, full fee paying, international Master's students. The scholarship is awarded to applicants who have demonstrated excellent academic results in their previous degree studies.

Students attracting home/EU fees

A £1,000 scholarship will be awarded to a number of privately funded, full fee paying, Home/EU Master's students. The scholarship is awarded to applicants who have demonstrated excellent academic results in their previous degree studies.

Applicants to the courses will be considered for these awards at application stage and if you are successful you will be notified when your offer is made.

For further information contact the PSIBS Biomedical Imaging Centre directly (**psibs@contacts.bham.ac.uk (mailto:psibs@contacts.bham.ac.uk)**) or email **financialsupport@bham.ac.uk (financialsupport@bham.ac.uk)**

Entry requirements

Required subjects and grades: 2(i) or 2(ii) degree or equivalent

Applicants must have **a good Honours degree** in Chemistry or a cognate discipline (for example biochemistry, pharmacy, forensic science…). We accept a range of qualifications from different countries.

We seek highly motivated candidates with a strong interest in developing themselves and their skills, and the ability to maximise the benefits of training at the interface between chemistry and biomedicine.

Learn more about **entry requirements (http://www.birmingham.ac.uk/students/pg/requirements)**

International students
We accept a range of qualifications from different countries – learn more about **international entry requirements (http://www.birmingham.ac.uk/students/pg/requirements/international)** .
Standard English language requirements (/postgraduate/requirements-pgt/international/index.aspx) apply

Additional information:

This programme offers the possibility (subject to satisfactory performance) to transfer directly into year 2 of the interdisciplinary PSIBS 4-year integrated PhD programme. Alternatively the programme provides a solid foundation for entry into year 1 of our three year PhD programmes

How to apply

When clicking on the Apply Now button you will be directed to an application specifically designed for the programme you wish to apply for where you will create an account with the University application system and submit your application and supporting documents online. Further information regarding how to apply online can be found on the **How to apply pages (http://www.birmingham.ac.uk/students/courses/postgraduate/apply-pg/index.aspx)**

Apply now (https://pga.bham.ac.uk/lpages/EPS078.htm)

Related links

The Graduate School - Postgraduate courses - School of Chemistry (/schools/chemistry/postgraduate/graduate-school.aspx)

Learning and teaching

Students follow a programme that provides the necessary theoretical foundations, laboratory and practical skills for cross-disciplinary research at the Life Sciences Interface. Core material is taught by dedicated PSIBS unit staff while detailed applications in various imaging areas are presented as seminars by the relevant specialists including other academic staff and our industrial partners.

Each student undertakes a research project to practise core experimental and research skills. All projects involve synthetic and/or physical chemistry and imaging technologies, applied to a biological or medical problem, and computer analysis of data generated

Related staff

Professor Michael John Hannon (/staff/profiles/chemistry/hannon-michael.aspx)

Employability

University Careers Network

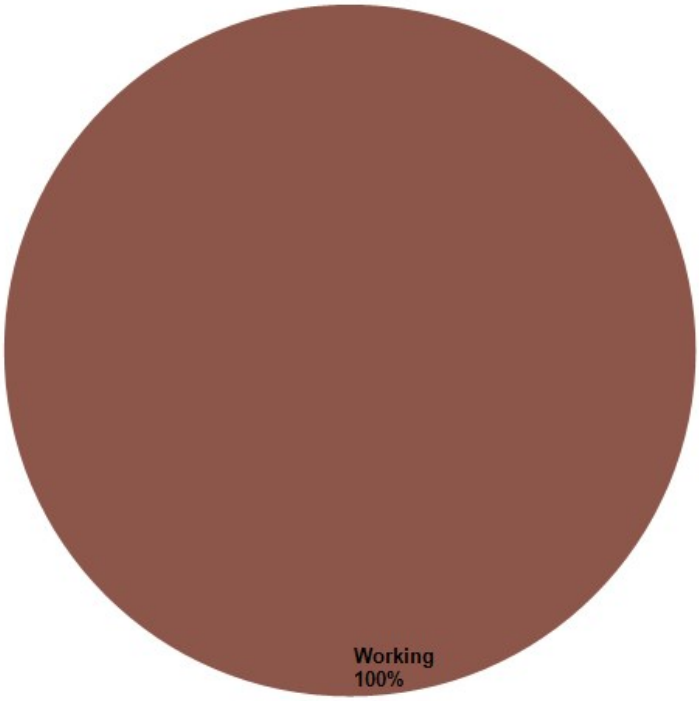
Preparation for your career should be one of the first things you think about as you start university. Whether you have a clear idea of where your future aspirations lie or want to consider the broad range of opportunities available once you have a Birmingham degree, our Careers Network can help you achieve your goal.

Our unique careers guidance service is tailored to your academic subject area, offering a specialised team (in each of the five academic colleges) who can give you expert advice. Our team source exclusive work experience opportunities to help you stand out amongst the competition, with mentoring, global internships and placements available to you. Once you have a career in your sights, one-to-one support with CVs and job applications will help give you the edge.

If you make the most of the **wide range of services (https://intranet.birmingham.ac.uk/as/employability/careers/college/eps/index.aspx)** you will be able to develop your career from the moment you arrive.

Destinations of Leavers from Higher Education (DLHE) 2011/12 (postgraduate taught graduates)

The DLHE survey is conducted 6 months after graduation.



Examples of employers

- Macdermid plc
- Ernst & Young
- Future Science Group
- GlaxoSmithKline
- Goldman Sachs International
- Johnson Matthey
- Kraft Foods
- Novartis
- Augean plc
- Henkel Ltd

Examples of occupations

- Accountant
- Analytical Chemist
- Analytical Engineer
- Chemical Analyst
- Development Chemist
- Assistant Commissioning Editor
- Assistant Technical Officer
- Laboratory Chemist
- Manufacturing Graduate
- Process Development Chemist

Further study - examples of courses

- MRes Human and Environmental Health Impacts of Nanoscience and Nanotechnology
- MSc Advanced Chemical Engineering
- MSc Analytical Toxicology
- MSc Biochemical Engineering

- MSc Forensic Investigation
- Second degree in medicine
- PhD - Radiochemistry
- PhD - Cancer Sciences
- Doctor of Pharmacy
- PhD Chemistry

Visit the **Careers section of the University website (https://intranet.birmingham.ac.uk/as/employability/careers/college/eps.aspx)** for further information.

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