

Chemistry for Biomedical Research MRes

Postgraduate degree course in Chemistry for Biomedical Research MRes:

A full-time one year interdisciplinary master's programme combining cutting edge taught courses with a major research project developing chemistry applied to biomedical research. The programme is suitable for graduates in chemistry, biochemistry, pharmacy and forensic science who wish to develop their knowledge base and research skills to equip them to tackle challenging problems in life and medical sciences. You will widen your knowledge of biological and biomedical science, physical science and the chemistry that underpins biomedical research by studying taught modules.

Your knowledge and skills will be developed and provide a sound basis for the aspects of independent working required for undertaking a major research project that will draw on our research strengths. This course is an ideal preparation for PhD study and for advanced employment as a research scientist in the healthcare, pharmaceutical and biomedical industries.

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

Study Options: Full time

Duration: 1 year full-time

Start date: September

Related courses

[Postgraduate courses - School of Chemistry \(/schools/chemistry/postgraduate/index.aspx\)](/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: sci-phy@contacts.bham.ac.uk (<mailto:sci-phy@contacts.bham.ac.uk>)

[School of Chemistry \(/schools/chemistry/index.aspx\)](/schools/chemistry/index.aspx)

[Follow us on Twitter \(http://twitter.com/eps_unibham\)](http://twitter.com/eps_unibham)

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
- Biological and biomedical science
- Life science and medicine

Gaining skills and expertise from different sciences and medicine will uniquely position you for careers in the healthcare, pharmaceutical and biomedical industries. The programme also includes a major research project at the interface between chemistry and biomedical research and offers the opportunity to pursue further Doctoral (PhD) studies.

The programme is delivered within the **[Research and Training Centre in Physical Sciences for Health \(http://www.birmingham.ac.uk/research/activity/psibs/index.aspx\)](http://www.birmingham.ac.uk/research/activity/psibs/index.aspx)**, which is the UK EPSRC Centre of excellence for postgraduate training in Biomedical Research, led by Chemical Biology Professor, Mike Hannon.

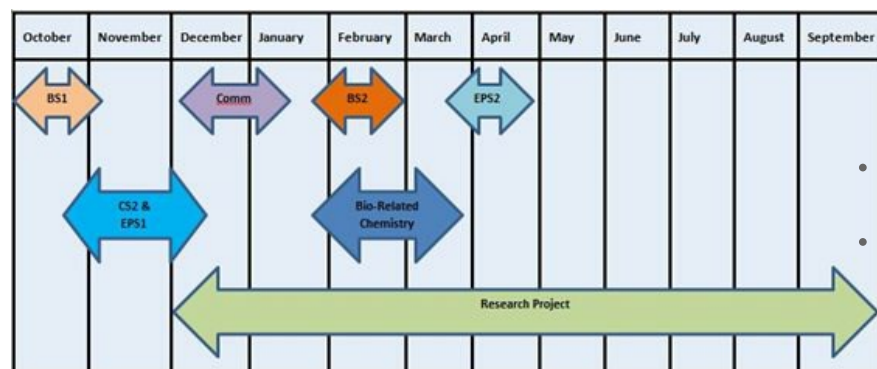
Modules

Students follow a programme that provides the necessary theoretical foundations, laboratory and practical skills for cross-disciplinary research at the Life Sciences Interface. Seven (four core, three optional) tailor-made taught modules and a major research project are combined with training in communication skills and public understanding of science.

For your major research project (120 credits) you will have a wide choice of projects selected from our suites of projects at the interface between imaging chemistry and biomedicine. This is your opportunity to put into practice the skills you develop in the taught modules and to undertake an exciting piece of frontier and interdisciplinary research. You may select your research project at the outset of the programme, but can change that selection if your interests change during your studies on the first three taught modules (up to the end of November). Alternatively you may wait and choose your project in November when you have commenced the programme. The core taught modules (40 credits) are compulsory, however there are three optional modules of which you must choose to undertake two (20 credits) and this means that you study them alongside all the other students on your programme and get to know them well. It also ensures that you get a solid academic grounding across the breadth of the course on which to build your research skills and develop the ability to work and communicate across disciplines.

Modules	Module Title	Credit
BS1	Bioscience for Engineers	10
BS2	LM frontiers in Biomedicine for EPS	10
CHM4M2	Bio-Related Chemistry	10
EPS1	Molecules and Materials in Biomedicine	10
EPS2	Physical Science Analytical and Measurement Techniques	10
CS2	Computational Tools for Modelling and Analysis	10
Communication Skills	Communication Skills	10
Research Project	Research Project Exemplar Projects	120

Please note, this may be subject to change.



Fees and funding

Tuition fees for home/EU students (2015/2016)

- £7,290

Tuition fees for international students (2015/2016)

- £17,365

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 2014 entry on our 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 Research and Training Centre in Physical Sciences for Health directly sci-phy@contacts.bham.ac.uk (<mailto:sci-phy@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 \(http://www.birmingham.ac.uk/students/pg/requirements\)](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 \(http://www.birmingham.ac.uk/students/pg/requirements/international\)](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 **Sci-Phy-4-Health 4 year integrated PhD programme** (<http://www.birmingham.ac.uk/research/activity/psibs/programme/SciPhy.aspx>). Alternatively the programme provides a solid foundation for entry into year 1 of our three year **Chemistry PhD programmes** ([/postgraduate/courses/research/chemistry/chemistry-phd.aspx](http://www.birmingham.ac.uk/postgraduate/courses/research/chemistry/chemistry-phd.aspx)).

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://pqa.bham.ac.uk/lpages/EPSo77.htm>)

Related links

[The Graduate School - Postgraduate courses - School of Chemistry \(/schools/chemistry/postgraduate/graduate-school.aspx\)](http://www.birmingham.ac.uk/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 interface between Chemistry, Biology and Biomedicine. Core material is taught by dedicated Sci-Phy academic staff as well as hospital practitioners and our industrial partners.

Each student undertakes a major research project to practise core experimental and research skills. All research projects will combine biological and biomedical science, physical science and the chemistry that underpins biomedical research.

Related staff

[Professor Michael John Hannon \(/staff/profiles/chemistry/hannon-michael.aspx\)](http://www.birmingham.ac.uk/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)

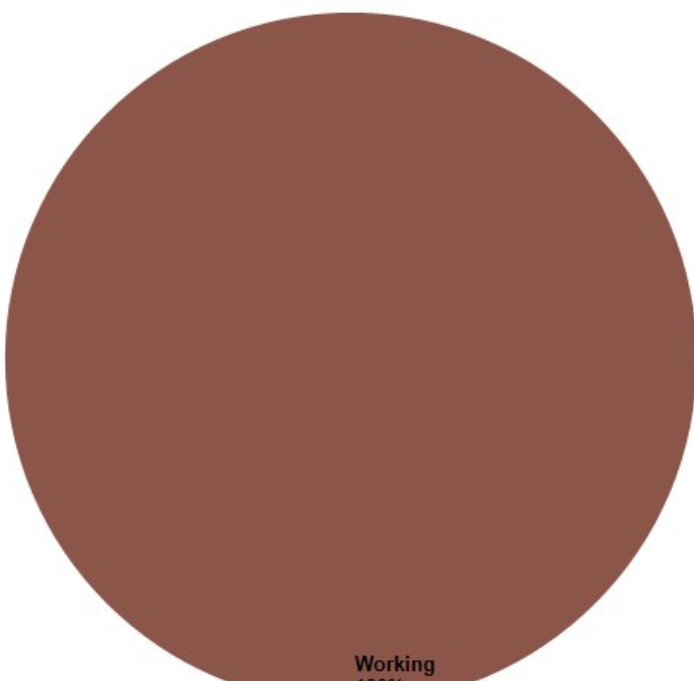
The DLHE survey is conducted 6 months after graduation.

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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