



The incidence of trauma continues to rise. The World Health Organization estimates that by 2020 trauma will become the leading cause of death worldwide due to ageing in Western populations, increasing road use in developing countries and conflict.

The MSc Trauma Science programme is delivered by experts in the field, including those from civilian and military backgrounds at the forefront of trauma care and offers up-to-date knowledge of the science of trauma and its management. The interactive teaching methods equip you with the medical and scientific skills to become a specialist in trauma science and its management.

**[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:** Continuing professional development, taught

**Study Options:** Full time, part time

**Duration:** 1 year full time or 2 years part time

**Start date:** October 2014

### Contact

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### Details

In England alone there are at least 20,000 cases of major trauma each year resulting in 5,400 deaths and many others resulting in permanent disabilities requiring long-term care. There are around a further 28,000 cases which, although not meeting the precise definition of major trauma, would be cared for in the same way.

Major trauma costs the NHS between £0.3 and £0.4 billion a year in immediate treatment, but when considering the costs of subsequent hospital treatments, rehabilitation, home care support, informal carer costs and the annual lost economic output as a result of major trauma is estimated to be between £3.3 and £3.7 billion (National Audit Office, Major Trauma Care in England, 2010).

Neurotrauma alone - including mild traumatic brain injury, which does not fit into the definition of major trauma - is the leading cause of death and disability in the first 4 decades of life and is estimated to cost the UK economy £8 billion a year (more than stroke). Many countries around the world now recognise the importance of trauma research to their health care systems and are developing specialist research programmes of to meet the growing needs of their population. This expansion in specialist clinical provision is generating demand for professionals with a recognised background of trauma sciences training.

The overall aim of the programme is to enable exploration of the theoretical basis of trauma science in general with a route to particular specialisms depending on the cohort need. For example, there are clear paths of specialism for Physiotherapists, Nurses, Doctors, Engineers, Scientists and Military personnel.

Using the process of scientific reasoning as its framework, the programme will integrate the key issues central to the theoretical aspects in these specialist areas with communication skills, management approaches, timely and reasoned decision making, identification of treatment options, best practice etc.

You will have the opportunity to tailor your learning experiences and backgrounds to meet your own personal and professional needs. You will also have the opportunity to develop your leadership skills within a multidisciplinary setting that cares for trauma-afflicted patients. Enquiry-, evidence-based learning will be a key feature of the

programme through problem based learning and journal clubs. In addition, you will have the opportunity to take part in a substantive research project, allowing you to develop research skills, project management, oral/poster presentation and writing a research dissertation. Research projects may be undertaken in an academic laboratory or can be in a clinical setting.

## Why study this course

- This course is the only full-time MSc Trauma Science course in the UK.
- The programme is delivered in partnership with frontline experts based in the new Queen Elizabeth Hospital in Birmingham, which has received funding from the National Institute of Health Research (NIHR), University Hospitals Birmingham, Ministry of Defence and the University of Birmingham, creating a major trauma treatment centre that offers the full range of required trauma specialists together with an associated national trauma research centre (NIHR SRMRC).
- This joint civilian and military clinical trauma centre shares a campus with the University of Birmingham where researchers from biomedical, engineering and physical sciences are working together with the clinical teams on a range of trauma-related research programmes.

## Modules

### Compulsory modules:

- Introduction to Trauma Science (20 credits)
- Research Methods (20 credits)
- Critical care, Torso Trauma and Burns Management (20 credits)
- Neurotrauma (20 credits)
- Musculoskeletal Trauma and Rehabilitation (20 credits)
- Research Dissertation (60 credits)

### Optional modules:

- Nutrition and Metabolism (20 credits)
- Conflict Trauma (20 credits)

## Fees and funding

### 2015/16 course fees

#### UK/EU students

Full-Time – MSc £12,510

Part-Time - MSc £6,255 per year for 2 years

#### Non UK/EU students

Full-Time - £17,960

## Entry requirements

A Bachelor's degree (or equivalent) in engineering, life sciences or biomedical sciences. We normally expect this to be at the 2(i) level or higher.

### International students:

IELTS - 7.0 with no less than 6.5 in any band..

## 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 \(http://www.birmingham.ac.uk/students/courses/postgraduate/apply-pg/index.aspx\)](http://www.birmingham.ac.uk/students/courses/postgraduate/apply-pg/index.aspx)

[Apply now \(https://pga.bham.ac.uk/pages/MDS051.htm\)](https://pga.bham.ac.uk/pages/MDS051.htm)

## Related links

[Trauma Sciences brochure \(/Documents/college-mds/courses/postgraduate/flyers/TraumaSciences.pdf\)](/Documents/college-mds/courses/postgraduate/flyers/TraumaSciences.pdf)

[Functional and Clinical Anatomy MSc \(/postgraduate/courses/taught/med/functional-clinical-anatomy.aspx\)](/postgraduate/courses/taught/med/functional-clinical-anatomy.aspx)

[Biomedical Research: Integrative and Translational MRes \(/postgraduate/courses/combined/med/biomedical-research-in-vivo.aspx\)](/postgraduate/courses/combined/med/biomedical-research-in-vivo.aspx)

## Learning and teaching

As a Birmingham student, you will be joining the academic elite and will have the privilege of learning from world-leading experts, as well as your peers. From the outset you will be encouraged to become an independent and self-motivated learner. We want you to be challenged and will encourage you to think for yourself.

Learning will be through lectures, seminars and small group sessions, with practical experience in clinics and laboratories where appropriate– all these with a high staff to student ratio. You will produce a detailed and thorough dissertation for your research project that will teach you the necessary skills to be able to have a theoretical background in trauma research and independent management of a research project. You will have overall control of the choice of modules and the specialisms that you will opt for based on your specific needs.

You are encouraged to contribute directly to planning the course content and required to continuously evaluate the taught modules. In addition, student representatives are elected to the course advisory panel.

You will have access to a comprehensive support system that will assist and encourage you, including personal tutors and welfare tutors who can help with both academic and welfare issues.

## Our facilities

The College of Medical and Dental Sciences houses state-of-the art facilities to support a range of teaching, learning and research activity.

Our facilities ensure that students receive the best possible learning experience by working in a modern environment. Among our most recent developments include a refurbishment of the Medical School foyer, Barnes library and Wolfson Centre for Medical Education.

Explore our facilities and take a tour by moving around our 360-degree panoramas:

ERROR:

Adobe Flashplayer 10.1 (or higher) or a  
HTML5 Browser with CSS 3D Transforms or WebGL support are required!

## Assessment methods

The programme will be assessed using a variety of methods, which will include essays, extended matching set questions, multiple choice questions, short answer questions and a viva, with formative assessments offered in each of these forms. A final dissertation and presentation based upon original research is required for completion of this Masters programme.

### Related staff

[Professor Ann Logan \(/staff/profiles/cem/neubio/Logan-Ann.aspx\)](/staff/profiles/cem/neubio/Logan-Ann.aspx)

[Mr Antonio Belli \(/staff/profiles/cem/neubio/belli-tony.aspx\)](/staff/profiles/cem/neubio/belli-tony.aspx)

## Employability

[Find out more about where our postgraduate students go \(/Documents/college-mds/courses/postgraduate/employability-info/employabilityinfo-cem-jan2014.pdf\)](/Documents/college-mds/courses/postgraduate/employability-info/employabilityinfo-cem-jan2014.pdf)

### Careers Support for Postgraduate Students

**Careers Network** – We can help you get ahead in the job market and develop your career. We recognise that as a postgraduate student you are likely to have specific requirements when it comes to planning for your next career step. Employers expect postgraduates to have a range of skills that exceed their subject knowledge. Careers Network offers a range of events and support services that are designed for all students, including postgraduates looking to find their niche in the job market. Here are just a few ways in which we can help postgraduates to get ahead:

- Careers Networking opportunities
- Effective careers strategy toolkit
- Year planner for all postgraduate students
- Masters Career Coaching Workshops
- One to one careers guidance

The Careers Network also have subject specific careers consultants and advisers for each College so you can be assured the information you receive will be relevant to your subject area. They also have a dedicated careers website for international students where you can find useful resources and information.

