Programme Title: Trauma Sciences

Programme Specification (PG)

Awarding body / institution: Queen Mary University of London
Teaching institution: Queen Mary University of London
Name of final award and title: MSc Trauma Science
Name of interim award(s): PGDip & PGCert
Duration of study / period of registration: PT over 2 calendar years by distance learning
Queen Mary programme code(s): PMSP-DLICMS1-PSTSC-A3F8
QAA Benchmark Group:  
FHEQ Level of Award: Level 7
Programme accredited by: Royal College of Surgeons
Date Programme Specification approved: 25/01/2022 (by amendment)
Responsible School / Institute: Blizard Institute

Schools / Institutes which will also be involved in teaching part of the programme:

Collaborative institution(s) / organisation(s) involved in delivering the programme:

Programme outline

The Centre for Trauma Sciences is a national and international leader in injury research and leads the London Major Trauma System. Trauma is one of the world’s leading killers, and is responsible for the loss of more life-years than any other disease. All developed and developing countries recognise the importance of trauma to their health care systems. The global impact of severe injury provides a worldwide demand for high-quality, up-to-date trauma education programmes at an advanced level. This programme draws upon the combined expertise, and resources, of the School of Medicine & Dentistry and the Barts Health NHS Trust together with national/international collaborators and meets these global demands and provides a truly world-class Masters programme.

Aims of the programme

The aim of the course is to ensure that graduates have acquired a broad and critical understanding of the science and practice of trauma care. Graduates will have developed the knowledge, decision-making and leadership to safely deliver a core set of clinical functions in the management of injured patients, consistent with their scope of practice.
## What will you be expected to achieve?

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills and other attributes in the following areas:

### Academic Content:

| A1 | Trauma epidemiology, types of mechanism of injury, the systemic, immunological and metabolic response to injury and blood loss, the basic processes of wound healing and scarring. |
| A2 | Ability to demonstrate a scientific and evidence-based approach to professional activities principles of resuscitation, transfusion practice and use of blood products. |
| A3 | Knowledge and critique of the scientific and evidence-based approach to professional activities, indications and diagnostic limitations of special investigations, non-invasive imaging techniques and monitoring equipment. |
| A4 | Principles of triage, treatment priorities, techniques and evidence for use in the pre-hospital arena, emergency department, theatre, intensive-care and ward environments. |
| A5 | The principles and application of damage control strategies in Trauma and related pathologies |
| A6 | Develop a critical understanding of the science of trauma. |

### Disciplinary Skills - able to:

| B1 | Demonstrate a critical understanding of organ and system-specific injuries, their operative and non-operative treatments, and complications thereof and apply the appropriate clinical, diagnostic and procedural skills; |
| B2 | Demonstrate through reflective practice on case-studies (where appropriate), the integration of current clinical skills with new knowledge of the principles of rehabilitation medicine with respect to trauma. |
| B3 | Apply the principles of critical care, ventilation, organ support and the physiology of SIRS, MODS and other relevant pathophysiological states. |
| B4 | Reflect on own learning and training styles, and hence identify own training needs and personal strengths and weaknesses. |

### Attributes:

| C1 | Understand the organisation of trauma systems, trauma scoring systems and assurance processes. |
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<tbody>
<tr>
<td><strong>C2</strong></td>
<td>Understand the principles of injury prevention with the ability to work effectively within relevant healthcare systems and teams, engaging effectively with the cultural and social environment in which trauma science is practised.</td>
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<tr>
<td><strong>C3</strong></td>
<td>Undertake, with critical awareness, analysis of complex, incomplete, ‘cutting edge’ or contradictory areas of key research and applicable research methodologies associated with injury and shock.</td>
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<td><strong>C4</strong></td>
<td>Develop team and leadership skills applicable to trauma care enabling the application of appropriate clinical, diagnostic and procedural measures.</td>
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<td><strong>C5</strong></td>
<td>Undertake a scientific and evidence-based approach to prepare a dissertation related to the organisation of trauma care in their home country/region.</td>
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<tr>
<td><strong>C6</strong></td>
<td>Work effectively within relevant healthcare systems and teams, engaging effectively with the cultural and social environment in which Trauma medicine is practised.</td>
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<tr>
<td><strong>C7</strong></td>
<td>Undertake, with critical awareness, analysis of complex, incomplete, ‘cutting edge’ or contradictory areas of clinical and scientific knowledge for implementation of a research project in Trauma science and medicine.</td>
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How will you learn?

The programme is delivered online, via online web content, video presentations, asynchronous case-based discussions and open-forum sessions. The Queen Mary Virtual Learning Environment [QMPlus] includes learning materials, on-line discussions and student coursework assessments. This resource is also used to track student engagement activity; course management; tutorial and pastoral support; and provision of content.

The total notional study time for each module is 150 hours, divided between student independent time (120 hours) and student/lecturer interaction time (30 hours).

The contact time with the students is approximately 30 hours for each module. Different methods to deliver course content will be chosen to provide the best possible learning experience to students. The include, but are not limited to:

1) Lectures - delivered by members of the faculty (average 30 -60 mins per lecture). Power point presentations will be available to students. When needed, lectures will be followed by an online discussion group. Considering different time zones, lectures are recorded and uploaded into the system to be available as recordings.

2) Clinical case seminars - specific topics are discussed in dedicated seminars. Seminars are delivered in real time and recorded to accommodate students participating from different locations and time zones. Discussion between students is encouraged.

3) Printable PDFs and videos.

4) Reading lists - providing students with a selection of articles, journals and new relevant updates to the topic in an electronic format.

6) Online discussion groups - where with a member of the faculty is available to answer questions submitted via QMPlus.

7) The open discussion sessions - which are intended to create an intellectually stimulating environment and to facilitate interaction and group relationships between the students.

Additionally, materials for each module are uploaded via QMPlus and Students also have the opportunity to access Queen Mary’s online library collection. This provides access to a considerable number of e-journals and key reference books.

How will you be assessed?

The form of assessments differ between modules to reflect the nature of the material that is studied. These include, but are not limited to:

- Critique of research literature and methodologies
- Critical appraisal and discussion of clinical / trauma system related topics
- Multiple Choice Question examinations
- Online presentation

Assignments are submitted online, and feedback will be provided within the same environment.
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How is the programme structured?
Please specify the structure of the programme diets for all variants of the programme (e.g. full-time, part-time - if applicable). The description should be sufficiently detailed to fully define the structure of the diet.

All modules bar the electives and dissertation, are compulsory, and must be attempted to achieve the intended award.

Modules are delivered in a particular order to ensure progression through the programme.

Students will have the opportunity to choose one of the three offered elective modules to cater for their individual career development plan.

Year 2 is dedicated to research and begins with the taught research module and is followed by the final dissertation project (60 credits). The student will carry out the dissertation project independently.

There is an optional 2-week summer school will take place at the end of summer term of the first year of study.

<table>
<thead>
<tr>
<th>Academic Year of Study</th>
<th>PT - Year 1</th>
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<tbody>
<tr>
<td>Module Title</td>
<td>Module Code</td>
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<tr>
<td>Trauma: The Disease</td>
<td>ICM7050</td>
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<tr>
<td>Haemorrhage and The Response to Injury</td>
<td>ICM7051</td>
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<tr>
<td>Brain and Spinal Cord Injury</td>
<td>ICM7053</td>
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<tr>
<td>Extremity &amp; Vascular Trauma</td>
<td>ICM7075</td>
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<td>Torso Trauma</td>
<td>ICM7052</td>
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<tr>
<td>Critical Care &amp; Trauma</td>
<td>ICM7054</td>
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<tr>
<td>Trauma Nursing or Burns &amp; Wound Healing or Military and Humanitarian Trauma</td>
<td>ICM7057, ICM7058, ICM7076</td>
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<table>
<thead>
<tr>
<th>Academic Year of Study</th>
<th>PT - Year 2</th>
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<tbody>
<tr>
<td>Module Title</td>
<td>Module Code</td>
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<table>
<thead>
<tr>
<th>Module Title</th>
<th>Module Code</th>
<th>Credits</th>
<th>Level</th>
<th>Module Selection Status</th>
<th>Academic Year of Study</th>
<th>Semester</th>
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<tbody>
<tr>
<td>Research Methods</td>
<td>ICM7059</td>
<td>15</td>
<td>7</td>
<td>Compulsory</td>
<td>2</td>
<td>Semester 1</td>
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<tr>
<td>Dissertation</td>
<td>ICM7061</td>
<td>60</td>
<td>7</td>
<td>Core</td>
<td>2</td>
<td>Semesters 2 &amp; 3</td>
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What are the entry requirements?

Medical degree or Nursing / Paramedical degree (2.1 or higher or international equivalent)
At least one year professional (post graduate) clinical trauma experience.
Overseas qualifications at degree level from a university or an institution of university rank.
International students must provide evidence of proficiency in English - IELTS 6.5 band score with a minimum of 6.0 in Writing or a score of TOEFL at 92 or above.

In addition, in order to complete the degree the students must have access to facilities as a PC with microphone and webcam for using QMPlus and broadband connection to the internet is required.
Computer skills: ability to use Windows operating system and basic knowledge of word, excel and power point.

How will the quality of the programme be managed and enhanced? How do we listen to and act on your feedback?

The Staff-Student Liaison Committee provides a formal means of communication and discussion between the Institute and its students. The Committee consists of student representatives from each year in the Institute together with appropriate representation from staff within the school/institute. It is designed to respond to the needs of students, as well as act as a forum for discussing programme and module developments. Staff-Student Liaison Committees meet regularly throughout the year.

The Institute operates a Learning and Teaching Committee which advises the Institute Director of Education on all matters relating to the delivery of taught programmes at Institute level including monitoring the application of relevant QM policies and reviewing all proposals for module and programme approval and amendment. Student views are incorporated in the committee’s work in a number of ways, such as through student membership, or consideration of student surveys.

The Institute operates an Annual Programme Review of its taught provision. APR is a continuous process of reflection and action planning which is owned by those responsible for programme delivery. Students’ views are considered in this process through analysis of PTES, module evaluation and Student contribution to the Review.

Students are required to complete an evaluation questionnaire at the end of each module to allow programme review and continual development. Regular feedback is also provided during ad hoc sessions, via formal or informal student evaluation. Online discussion forums are also available to facilitate communication between students and staff. It will also be possible via QMPlus provides analysis of students’ activity which enables the Institute to identify where additional support/improvements are required.

What academic support is available?

Each student will be assigned a personal tutor at the beginning of the course. Tutors will remain the same for the duration of the programme. Meetings can be held via online discussion or video call.

There is a trauma education fellow (TEF) who is responsible for pastoral and academic writing support for students. Where necessary, students have the opportunity to arrange online/video call appointments with the TEF tutors during UK office hours. Every module has a module lead who is responsible for coordinating the weekly online sessions and setting module and assignment content. Every module has a group of markers who will grade the assignments and where required, provide feedback about the clinical components of the assignment.
Within the dissertation module, each student is assigned a dissertation supervisor (and where necessary a methodological or subject expert advisor).
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Programme-specific rules and facts

How inclusive is the programme for all students, including those with disabilities?

Queen Mary has a central Disability and Dyslexia Service (DDS) that offers support for all students with disabilities, specific learning difficulties and mental health issues. The DDS supports all Queen Mary students: full-time, part-time, undergraduate, postgraduate, UK and international at all campuses and all sites.

Students can access advice, guidance and support in the following areas:

- Finding out if you have a specific learning difficulty like dyslexia
- Applying for funding through the Disabled Students' Allowance (DSA)
- Arranging DSA assessments of need
- Special arrangements in examinations
- Accessing loaned equipment (e.g. digital recorders)
- Specialist one-to-one “study skills” tuition
-Ensuring access to course materials in alternative formats (e.g. Braille)
- Providing educational support workers (e.g. note-takers, readers, library assistants)
- Mentoring support for students with mental health issues and conditions on the autistic spectrum.

Links with employers, placement opportunities and transferable skills

The award of this degree will inform and assure employers that an individual has a strong interest and thorough knowledge of orthopaedic trauma and research, with a firm grounding in relevant translational and clinical trial methodologies.

There may also be the possibility of facilitating orthopaedic trauma fellowships through faculty members and networks, to facilitate sub-specialist training and enhance future employment prospects.

The transferable knowledge, skills and attitudes gained will help promote graduates as future leaders in the development and delivery of orthopaedic trauma care worldwide.

Programme Specification Approval

Person completing Programme Specification: Krys Gunton

Person responsible for management of programme: Krys Gunton

Date Programme Specification produced / amended by School / Institute Education Committee: 10 Jan 2022

Date Programme Specification approved by Taught Programmes Board: 25/01/2022 (by amendment)