



## 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 Orthopaedic 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-PSOTS-A3M6
QAA Benchmark Group:	
FHEQ Level of Award:	Level 7
Programme accredited by:	Royal College of Surgeons
Date Programme Specification approved:	5/12/24 (by FMD TLC)
Responsible School / Institute:	Blizard Institute

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

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

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### Programme outline

Trauma is one of the world's leading killers and the cause for a significant proportion of the global burden of disease, with tens of thousands of people dying from traumatic injuries every day. There are an even greater number of people who may survive an injury but are left with permanent disability.

Improving survival and outcomes following traumatic injury has been identified as a key priority by the World Health Organisation and orthopaedic injuries pose a major clinical challenge world-wide.

This two year distance-learning course provides a broad and critical knowledge of the most up-to-date science and practice of trauma care, with a particular focus on orthopaedic and ortho-plastic management. It combines international expert speakers with technology-enhanced learning so that students can readily access knowledge from around the world at a time and place of their choosing. Interactive discussion forums and one to one tutor sessions help to engender an inclusive and supportive community, as well as facilitating a worldwide network of contacts with shared interests.

This is further developed by an optional 2-week residential summer school in London at the end of the first year. This incorporates simulated scenario training to complement the didactic learning and provide practical knowledge and experience of decision-making and the safe, professional delivery of core clinical functions in the management of seriously injured patients. The second year of study entails a written dissertation on a specific area of knowledge, systematic literature review or original

research.

The course is tailored to meet the needs of international graduates from all healthcare and health sciences backgrounds including surgeons, anaesthetists, nurses, operating department staff, allied health professionals, or those with a specialist interest in orthopaedic trauma education and training.

It is intended to provide high-quality learning no matter where you are in the world, in order to develop the future leaders in the science and practice of orthopaedic trauma.

## Aims of the programme

This programme aims to:

- make patient safety its key priority and to produce graduates with the knowledge, skills and attitudes to provide safe and high quality medical care.
- produce graduates with a broad and critical knowledge of the science and practice of orthopaedic trauma care
- guide graduates in developing the knowledge, technical skills, decision-making and professionalism to safely deliver a core set of clinical functions in the management of injured patients, consistent with their scope of practice.
- produce graduates equipped to meet local, regional and national needs for managing orthopaedic trauma
- prepare graduates for future careers in and around orthopaedic trauma
- provide training in research skills and to encourage pursuit of independent study
- widen access to higher education
- ensure a supportive and inclusive learning environment

## What will you be expected to achieve?

Students who successfully complete the programme will be able to demonstrate a broad and critical knowledge of the science and practice of orthopaedic trauma care:

### Academic Content:

A1	Knowledge and critique of 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 principles of initial and ongoing fluid 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	Knowledge and critique of the principles of triage, treatment priorities, techniques and evidence for use in the pre-hospital arena, emergency department, theatre, intensive-care and ward environments.
A5	Knowledge and critique of the principles and application of damage control strategies in orthopaedic trauma and related pathologies
A6	Develop a critical knowledge of the science of orthopaedic trauma.

### Disciplinary Skills - able to:

B 1	Demonstrate a critical knowledge of organ and system-specific injuries, their operative and non-operative treatments, and complications thereof and apply the appropriate clinical, diagnostic and procedural skills;
B 2	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 orthopaedic trauma.
B 3	Apply the principles of critical care, ventilation, organ support and the physiology of SIRS, MODS and other relevant pathophysiological states.
B 4	Reflect on own learning and training styles in order to identify own training needs and personal strengths and weaknesses.

Attributes:	
C 1	Demonstrate a detailed systematic knowledge, critical awareness and application of the principles of mass casualty management.
C 2	Make decisions in complex and unpredictable situations for the immediate management of orthopaedic trauma patients.
C 3	Act autonomously in planning and implementing tasks for the resuscitation and management of orthopaedic trauma patients.
C 4	Engage critically with knowledge and processes from the forefront of practice and from a wide range of sources to undertake a dissertation.
C 5	Demonstrate a global perspective of issues around trauma
C 6	Develop skills to learn continuously in a changing world.
C 7	Demonstrate rounded intellectual development and clarity of communication.

## 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.

### 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 two offered elective modules to cater for their individual career development plan.

Year 2 is dedicated to research and begins with the taught research module 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.

#### Academic Year of Study PT - Year 1

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Trauma: Epidemiology & Systems	ICM7350	15	7	Compulsory	1	Semester 1
Haemorrhage and Resuscitation	ICM7351	15	7	Compulsory	1	Semester 1
Trauma to the Pelvis and Torso	ICM7062	15	7	Compulsory	1	Semester 1
Fracture Biology and Limb Trauma	ICM7064	15	7	Compulsory	1	Semester 2
Spine, Spinal Cord and Nerve Injuries	ICM7063	15	7	Compulsory	1	Semester 2

Programme Title: Orthopaedic Trauma Science

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Paediatric Trauma and Limb Reconstruction	ICM7066	15	7	Compulsory	1	Semester 2
Open Fractures and Ortho-Plastic Surgical Care	ICM7065	15	7	Compulsory	1	Semester 3

Academic Year of Study PT - Year 2

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Research Methods	ICM7059	15	7	Compulsory	2	Semester 1
Dissertation	ICM7061	60	7	Core	2	Semesters 2 & 3

**What are the entry requirements?**

Medical degree or Nursing degree (2.1 or higher).  
At least one year professional (post graduate) suitable professional 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 a PC with a microphone and webcam and broadband connection to the internet is required.

Computer skills: ability to use Windows operating system and basic knowledge of Word, Excel and PowerPoint.

**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 operate 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).

### **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:	05/12/2024 (for Sept 2025)
Date Programme Specification approved by Taught Programmes Board:	5/12/24 (by FMD TLC)