

Programme Title: MSc DL Orthopaedic Trauma Science



## Programme Specification

Awarding Body/Institution	Queen Mary University of London
Teaching Institution	Queen Mary University of London
Name of Final Award and Programme Title	MSc DL Orthopaedic Trauma Science (A3M6)
Name of Interim Award(s)	PGDip, PGCert
Duration of Study / Period of Registration	2 years
QM Programme Code / UCAS Code(s)	A3M6
QAA Benchmark Group	Not applicable
FHEQ Level of Award	Level 7
Programme Accredited by	
Date Programme Specification Approved	March 2015
Responsible School / Institute	Blizard Institute

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

Barts and The London School of Medicine and Dentistry

Institution(s) other than Queen Mary that will provide some teaching for the programme

### 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 Organization and orthopaedic injuries pose a major clinical challenge world-wide.

This two year distance-learning course will provide 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:

A 1	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.
A 2	Ability to demonstrate a scientific and evidence-based approach to principles of initial and ongoing fluid resuscitation, transfusion practice and use of blood products.
A 3	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.
A 4	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.
A 5	Knowledge and critique of the principles and application of damage control strategies in orthopaedic trauma and related pathologies
A 6	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;
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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 will be entirely delivered online through the QMUL Virtual Learning Environment (QMPLUS). This will incorporate web content, video presentations, asynchronous case-based discussions and open-forum sessions. The majority of the learning resources for this programme will be hosted on the QMPLUS website. This will be the platform for the programme and will include learning materials, on-line discussions, assessments and feedback on student coursework assessments. This resource will also be used to track student engagement activity, course management, tutorial and pastoral support and provision of course content.

The total notional study time for each module is calculated to be 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 following methods will be used to deliver the course contents:

- 1) Lectures: members of the faculty will deliver lectures (average two hours time per lecture). PowerPoint presentations will be available to students and lectures will be followed by an online discussion group. In view of different time zones anticipated, lectures will also be recorded and uploaded to be available as podcast.
- 2) Seminars: specific topics will be analysed in dedicated seminars. Seminars will be delivered in real time. Time will be set so to accommodate students participating from different location and time zone. Discussion will be encouraged and an up to date review of specific topic will be accomplished.
- 3) Clinical case discussion: held via email discussion group or video-conference sessions. All students will be encouraged to participate.
- 4) Printable PDFs and videos.

5) Weekly reading list: students will be supplied with a selection of articles, journals and new relevant updates to the topic in an electronic format.

6) Online discussion groups with a member of the faculty available to answer questions submitted via QMPLUS

To retain enthusiasm, students will be asked to work together and to discuss different topics with each other. These open discussion sessions are intended to create an intellectually stimulating environment and to facilitate interaction and group relationships between the students.

The materials for each module will be uploaded via QMPLUS. Wider reading will be encouraged and students will also be provided with a reading list for each module and will have the opportunity to access the QMUL online library. This provides access to a considerable number of e-journals and key reference books.

## How Will You Be Assessed?

The full MSc programme comprises 8 distance-taught modules and a Summer School in year 1 (to the total value of 120 credits) with a dissertation (equivalent to 60 credits) undertaken in their second year of study, with each credit contributing equally to the final mark (0.56% of the final mark). A 15 credit module represents therefore 8.4%, 120 credits represent 66.7%, and the Research Methods module/Dissertation, worth 60 credits, represents 33.3%.

Awards will be classified according to the Academic Regulations:

- College Mark of 70.0% to 100.0% and a Module Mark of 65% or more in Dissertation to get a Distinction
- College Mark of 60.0% or more to get a Merit with a mark of 60% or more in Dissertation.
- College Mark of 50.0% to 59.9% to get a Pass

The award of the degree will be made only when all modules are satisfactorily completed. In the event of a candidate achieving an average score of <50% for the taught modules, the candidate may take a single re-sit of the required module(s) during the next academic year. Re-sits will be capped at 50%.

The form of assessments will reflect the nature of the material that is studied, but will normally include:

- Critique of research literature
- Practical assessments in the research methodologies and clinical setting /portfolio-based assessments
- Written evaluative assignments
- Written examinations

Modules will largely be appraised by remote examination whereas written coursework will be submitted online for assessment. This will be set, collected and marked on QMPLUS, and marks and feedback relayed to students in the same environment. We will be guided by College regulations regarding the written examinations and in-course assessments [word count, e.g. 1500 words] for a 15-credit level 7 module. For the Masters component, there will be a compulsory Dissertation [10,000 words].

## How is the Programme Structured?

The Trauma Science postgraduate programme is structured as distance learning part-time course taken over two years.

The programme will be taught over three semesters. In the first year, the programme is structured around 6 modules plus the summer school. Each module is worth 15 credits except where otherwise indicated. Each module includes the formative and summative assessment.

Seven out of eight modules are compulsory. The first six modules will be taught in the predefined order. For pedagogical reasons the structure of the first two semesters of the programme is fixed and no alternative pathways are possible. In the third semester students will have the opportunity to choose one of the two offered elective modules. Students will choose by considering whichever is the most suitable for their career development plan.

After completion of the elective modules, a compulsory Research Module is taught. This module is a prerequisite for the

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dissertation project.

Students wishing to obtain a MSc degree must complete the second year of study by delivering the final dissertation project (60 credits). The student will carry out the dissertation project independently.

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

Academic Year of Study 1

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
1. Trauma: The Disease	ICM7050	15	7	Compulsory	1	Semester 1
2. Haemorrhage and The Response to Injury	ICM7051	15	7	Compulsory	1	Semester 1
3. Trauma to the Pelvis and Torso	ICM7062	15	7	Compulsory	1	Semester 2
4. Spine, Spinal Cord and Nerve Injuries	ICM7063	15	7	Compulsory	1	Semester 2
5. Fracture Biology and Limb Trauma	ICM7064	15	7	Compulsory	1	Semester 2
6. Paediatric Trauma and Limb Reconstruction	ICM7066	15	7	Compulsory	1	Semester 3
7a. Open Fractures and Ortho-Plastic Surgical Care	ICM7065	15	7	Elective	1	Semester 3
7b. Trauma Nursing	ICM7057	15	7	Elective	1	Semester 3
8. Research Methods	ICM7059	15	7	Compulsory	1	Semester 3
Summer School	ICM7060	0	7	Study only	1	Semester 3

Academic Year of Study 2

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Dissertation	ICM7061	60	7	Core	2	Semesters 1-3

## What Are the Entry Requirements?

Medical degree or Nursing degree (2.1 or higher).

Suitable professional experience & expertise.

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 or a score of TOEFL at 575 or above (232 computer based) with a TWE of 4.0 or above are proof of this.

Course entry may be competitive.

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 Do We Listen and Act on Your Feedback?

The Staff-Student Liaison Committee provides a formal means of communication and discussion between schools/institutes and its students. The committee consists of student representatives from each year in the school/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. Each school/institute operates a Learning and Teaching Committee, or equivalent, which advises the School/Institute Director of Taught Programmes on all matters relating to the delivery of taught programmes at school level including monitoring the application of relevant QM policies and reviewing all proposals for module and programme approval and amendment before submission to Taught Programmes Board. Student views are incorporated in the committee's work in a number of ways, such as through student membership, or consideration of student surveys.

All schools/institutes operate an Annual Programme Review of their taught undergraduate and postgraduate provision. APR is a continuous process of reflection and action planning which is owned by those responsible for programme delivery; the main document of reference for this process is the Taught Programmes Action Plan (TPAP) which is the summary of the school/institute's work throughout the year to monitor academic standards and to improve the student experience. Students' views are considered in this process through analysis of the NSS and module evaluations.

Students are required to complete an evaluation questionnaire at the end of each module to allow programme review and continual development. Regular feedback is 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 to keep track of students' access to material and attendance to lectures. This is very important to detect if a student is not participating to or regularly attending the course. It also allows the early identification of situations where additional support to meet specific individual needs may be necessary.

## Academic Support

The faculty is wholly committed to maintaining a high quality standard in the programme.

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. Students will have the opportunity to arrange weekly appointments with their tutors during office hours. Meetings will be held via online discussion or video call.

## Programme-specific Rules and Facts

N/A.

## Specific Support for Disabled Students

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.

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## Programme Specification Approval

**Person completing Programme Specification**

Dr Kash Akhtar

**Person responsible for management of programme**

Dr Kash Akhtar

**Date Programme Specification produced/amended  
by School Learning and Teaching Committee**

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**Date Programme Specification approved by  
Taught Programmes Board**

March 2015