

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 Trauma Science
Duration of Study / Period of Registration	2 years
QM Programme Code / UCAS Code(s)	A3F8
QAA Benchmark Group	Not applicable
FHEQ Level of Award	Level 7
Programme Accredited by	N/A
Date Programme Specification Approved	27 Apr 2011
Responsible School / Institute	Blizard Institute of Cell and Molecular Science

Schools also involved in teaching part of the programme
Barts and The London School of Medicine and Dentistry
Royal College of Surgeons

Programme Rationale

Trauma has been identified as a priority area for both the Medical School and the Trust. This reflects the potential for the Medical School to develop a Centre for Trauma Sciences which will be a national and international leader in injury research. It also reflects the importance of Trauma to the future of the Trust and its status within London and the UK. This prioritization has led to the formation of the Trauma Clinical Academic Unit and a Trauma Sciences group within the BICMS with the appointment of a Chair to lead these developments.

As part of these developments, we would like to propose that the School provides a Masters course in Trauma Science. This will serve as a 2-year (PT) Masters course in Trauma Science with an elective Nursing or BurnCare option.

Trauma is one of the world's leading killers, and is responsible for the loss of more life-years than any other disease. All countries, developed and developing recognise the importance of trauma to their health care systems. Many countries including the UK are actively pursuing rationalization and specialization programmes. Trauma's global impact is not matched by the educational and research resources it receives, and there is a large worldwide demand for high-quality, up-to-date trauma education programmes.

We believe that the combined expertise and resources of the School of Medicine & Dentistry and the Barts and The London NHS Trust is ideal to meet these demands and produce a truly world-class Masters programme to produce the future global leaders in trauma care. We believe there is a significant demand for this course, both nationally and internationally. The association of the course with the Trauma.Org Foundation and the Royal College of Surgeons of England will provide a global reach and recognition for the course.

Educational 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, 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.

Learning Outcomes

The programme provides opportunities for students to develop and demonstrate knowledge and understanding, skills and other attributes in the following areas. The programme outcomes are referenced to the relevant QAA benchmark statement(s) (see above) and the Framework for Higher Education Qualifications in England, Wales and Northern Ireland (2008), and relate to the typical student. Additionally, the SEEC Credit Level Descriptors for Further and Higher Education 2003 and Queen Mary Statement of Graduate Attributes have been used as a guiding framework for curriculum design.

Knowledge and understanding of:	
A 1	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 professional activities principles of initial and ongoing fluid resuscitation, transfusion practice and use of blood products.
A 3	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	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	The principles and application of damage control strategies in Trauma and related pathologies
A 6	Develop a critical understanding of the science of trauma.

Intellectual skills - able to:	
B 1	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;
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 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, and hence identify own training needs and personal strengths and weaknesses

Transferable skills - able to:	
C 1	Understand the organisation of trauma systems, trauma registry management, trauma scoring systems, clinical governance and quality assurance.
C 2	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.
C 3	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.
C 4	Develop team and leadership skills applicable to trauma care enabling the application of appropriate clinical, diagnostic and procedural measures.
C 5	Undertake a scientific and evidence-based approach to prepare a dissertation related to the organisation of trauma care in their home country/region.
C 6	Work effectively within relevant healthcare systems and teams, engaging effectively with the cultural and social environment in which Trauma medicine is practised.
C 7	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

Practical skills - able to:	
D 1	Demonstrate a detailed systematic knowledge, critical awareness and application of the principles of mass casualty management.
D 2	Make decisions in complex and unpredictable situations for the immediate management of trauma patients.
D 3	Act autonomously in planning and implementing tasks for the resuscitation and management of trauma patients.
D 4	Synthesise information in a manner that may be innovative, utilizing knowledge or processes from the forefront of the discipline/practice and from a wide range of sources to undertake a dissertati

Teaching, Learning and Assessment Strategies

The programme will be entirely delivered online, via online 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 Trauma.Org website which is the primary site for trauma health care professionals and was founded by Karim Brohi for trauma education & community services worldwide.

The Virtual Learning Environment [Blackboard] of QMUL will be the platform for the programme and will include learning materials, on-line discussions, assessments and giving feedback on student coursework assessments. This resource will also be used to track student engagement activity; course management; tutorial and pastoral support; provision of come content and linking to the content hosted on Trauma.Org.

Blackboard will be the primary means of delivering the course, and the primary learning content will be hosted on Trauma.Org. The Trauma.Org content will be linked to Blackboard, and will thus be situated in the context of learning activities. Further guidance will be sought from the Head of E-Learning (Sam Brenton) as this programme is developed.

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: lectures will be delivered by members of the faculty (average two hours time per lecture). Power point presentation will be available to students. When needed, lectures will be followed by an online discussion group. Considering different time zones, lectures will also be recorded and uploaded into the system to be available as podcast.

2) Seminars: specific topics will be analyzed in dedicated seminars. Seminars will be delivered in real time. Time will be set 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. Each student will be encouraged to participate.

4) Printable PDFs and videos: especially linked to the Trauma.org website.

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 the Blackboard.

To retain enthusiasm, students will be asked to work together and to discuss different topics with each other. This 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 Blackboard the day of the session. Students will also have the opportunity to access the QMUL online library. This provides access to a considerable number of e journals and key reference books.

The full MSc programme comprises 8 distance-taught modules (to the total value of 120 credits) & a Summer School in year 1 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 67.2%, and the Research Methods module/Dissertation, worth 60 credits, represents 33.6%.

Awards will be classified according to the Academic Regulations – i.e.:

- College Mark of 70.0% to 100.0% and a Module Mark of 65.0% or more in Dissertation to get a Distinction
- College Mark of 65.0% or more to get a Merit
- College Mark of 50.0% to 64.9% to get a Pass

Students who satisfactorily pass the 120-credit taught modules (minimum 50% pass each) will be eligible to proceed to the 60-credit year 2 Dissertation module. Likewise the QMUL regulations for Masters programme regarding condoned failure of modules (i.e. up to 30 credits condoned fails) will also be allowed.

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

Modules will largely be appraised by written coursework, to be submitted online for assessment. This will be set, collected and marked in Blackboard, and marks and feedback relayed to students in the same environment.

We will be guided by College regulations regarding in-course assessments [word count, e.g. 2000 words] for a 15-credit level 7 module. For the Masters component: a Dissertation [10,000- 20,000words]

Programme Structure(s) and Requirements, Levels and Modules

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

In the first year, the programme will be taught over three semesters; the programme is structured around 8 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 semester 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 which one is the most suitable for their career development plan. After completion of the elective module, a compulsory Research Module is taught. This module is a prerequisite for the dissertation project which has to be completed by the end of the second year of study.

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

The 2-week summer school will have to be completed at the end of summer term of the first year of study and attendance is mandatory. The programme includes the training in Specialty Skills in Emergency Surgery and Trauma Course at the Royal College of Surgeons.

	Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
X	1) Trauma; the Disease	ICM7050	15	7	Compulsory	1	Semester 1
X	(2) Haemorrhage and Response to Injury	ICM7051	15	7	Compulsory	1	Semester 1
X	(3) Torso Trauma	ICM7052	15	7	Compulsory	1	Semester 1
X	(4) Brain and Spinal Cord Injury	ICM7053	15	7	Compulsory	1	Semester 2
X	(5) Critical Care & Trauma	ICM7054	15	7	Compulsory	1	Semester 2
X	(6) Fracture Biology	ICM7055	15	7	Compulsory	1	Semester 2
X	(A) Trauma Nursing	ICM7057	15		Elective	1	Semester 3
X	(B) Burn and Wound Healing	ICM7058	15	7	Elective	1	Semester 3
X	(7) Research Methods	ICM7059	15	7	Compulsory	1	Semester 3
X	Summer School	ICM7060	0	7	Compulsory	1	Semester 3

X	Dissertation	ICM7061	60	7	Core	2	Semesters 1-3
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Criteria for Admission to the Programme

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 facilities as a PC with microphone and webcam for using Blackboard 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.

Quality Assurance Mechanism

Include details of: SSLC meetings, student feedback mechanisms, personal tutor arrangements, programme induction, programme review and monitoring.

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

Personal tutor arrangements: every student will have a personal tutor assigned 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. The meeting will be held via discussion on line or video call.

Mechanisms for students' feedback: students are asked to complete an evaluation questionnaire at the end of each module. Regular feedback is provided during ad hoc sessions, via formal or informal students evaluation (i.e. questionnaires). Online discussion forums are also available to facilitate communication between students and staff. Via Blackboard will also be possible 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 to identify situations where additional support to specific individual needs is necessary. The School's Student-Staff Liaison Committee will be another useful mean for communication and for discussion of student's feedback.

Programme-specific Assessment Regulations (if applicable)

In the case of programmes that deviate / do not comply with the Academic Regulations further information regarding the nature of any difference and/or deviation should be stipulated in detail.

Employers Links

Please provide details of any links with employers e.g.

- Details of advisory panels that include current or potential employers;
- Organisations that regularly employ graduates from this programme and the roles that graduates undertake.
- Student prizes donated by organisations that may offer employment to graduates from this programme.

If there are no links with employers consider the learning outcomes and transferable skills and explain how these might be used to inform employers about the qualities and skills a graduate from this programme might be expected to have.

Graduates of the Trauma Science MSc are expected to become leaders in the development of trauma care in their own regions. Moreover Trauma Science students will understand the imperatives of trauma research and have a firm grounding in relevant translational and clinical trial methodologies.

Programme Specification Approval

Person completing Programme Specification

Person responsible for management of programme

Date Programme Specification produced/amended
by School or teaching and learning committee

Date Programme Specification approved by
Programme and Module approval Board

27 Apr 2011