Programme Title: Critical Care

Queen Mary
University of London

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 Critical Care (Distance Learning) PGDip Critical Care (Distance Learning) PGCert Critical Care (distance learning)
Name of interim award(s):	
Duration of study / period of registration:	MSc (1Y FT/2Y PT), PgDip (1Y FT /2Y PT), PgC (1Y PT)
Queen Mary programme code(s):	PSCRC MSc: A3V5 & A3VG / PgD: A3V4 & A3VF / PgC: A3V3 A3VE
QAA Benchmark Group:	
FHEQ Level of Award:	Level 7
Programme accredited by:	
Date Programme Specification approved:	
Responsible School / Institute:	William Harvey Research Institute

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

William Harvey Research Institute

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

N/A

Programme outline

This programme for clinicians and senior nurses working in Intensive Care Medicine is intended to provide course participants with the skills to advance their knowledge in the speciality and obtain a higher degree through in person or distance learning mode of study.

It will provide a theoretical basis for gaining competence in the general aspects of managing the critically ill or injured patient. The student will also develop and demonstrate competence in the production of critical reviews and theoretical research activities. The course is currently successfully provided by the same group and we seek approval for January intake.

With an aging population, often with high burden of chronic illness, as well as the increasing scope and availability of treatments, Critical Care Medicine is a rapidly expanding field across the world. As a result, the demand for high quality educational programmes in the field is increasing.

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Aims of the programme

The aims of the programme are to provide the students with a distillation and examination of the background and the latest evidence base in critical care medicine. It will equip the students in the skills to apply this knowledge to directly help provide high quality critical care and improve outcomes. The course also aims to provide the students with skills to carry out high quality research, audit and quality improvement projects to inform the evidence base in critical care medicine and deliver high standards of care for an increasingly complex group of patients. Having completed this higher degree, the students will be able to take on leadership roles in clinical, research and teaching position locally and nationally.

What will you be expected to achieve?

The students will be expected to acquire a wide breadth and depth of knowledge in critical care medicine that includes care of the unconscious patient, pathophysiological basis of critical illness, how to support failing organs and some detailed knowledge of special patient groups, including trauma, neurology and patients with multiorgan failure. The students will also gain an understanding of critical appraisal, basic research skills, data analysis and statistics, as well as communication, ethics and end of life care as required in the ICU. An observership module will allow students to see how these principles are applied in the ICU where they will join the ICU clinical team. For the distance learning students, in place of the observership module, the students will undertake the Multidiscplinary care in critical care module which covers similar principles. The dissertation will allow the students to carry out an in depth study which may be basic science or part of a clinical trial, or a systematic review of a relevant topic.

Academic Content:	
A 1	Discuss the physiology and pathophysiology affecting consciousness.
A 2	Discuss the theory and application of advanced physiological monitoring to ensure patient safety.
A 3	List and describe the causes and mechanisms of failure of vital organ function.
A 4	Discuss the pathophysiology of organ failure including the systemic inflammatory response, tissue dysoxia and the metabolic response to critical illness.
A 5	Discuss the principles of oxygen delivery, mechanical ventilation, cardiovascular support, renal replacement and liver support.
A 6	Describe the anatomy and physiology of the central nervous system
A 7	List and discuss the methods of monitoring the central nervous system in critical illness and interventions that will affect outcomes.
A 8	Write about the science of clinical decision making

Disciplinary Skills - able to:	
B 1	Discuss an appropriate range of approaches to sedation and analgesia
B 2	Be able to discuss in detail the concepts of safe transfer of the critically ill patient

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B3	Describe the normal physiology of the cardiovascular, respiratory, renal and hepatic systems.
B4	Describe and discuss pathophysiological processes and how these impact on severity of illness and long-term prognosis.
B5	Apply knowledge to manage patients with fluids, blood, blood products, inotrope, and vasopressors.
B6	Describe the use of lung protective ventilation to patients with different illnesses presenting to the critical care unit.
B7	Be able to interpret multi-modal monitoring to manage patients with neurological injuries.
B8	Describe the basic initial treatment for patients with severe injuries.
B9	Give an objective description of the range of clinical outcomes following critical illness

Attributes:	
C1	Plan and carry out an initial evaluation and acute management of an unconscious patient
C2	Plan the ongoing care of an unconscious patient using acquired knowledge and skills
C3	Be able to communicate clearly and effectively with the multidisciplinary team looking after critically ill patients.
C4	Be able to recognise and escalate the care of deteriorating patients.
C5	Select, summarise and synthesise key information from texts and web references.
C6	Be able to contribute to decision making in treatment of trauma and neurocritical patients
C7	Discuss the ethics of withholding and withdrawing life sustaining treatment
C8	Apply clinical severity scores to outcome data to ensure high quality care, and suggest quality improvements at local hospital critical care unit.

How will you learn?

Delivered onsite in person, the overall course information, including student handbook and timetables, will be distributed via the virtual learning environment, QMPlus.

 A variety of teaching strategies will be employed during a teaching session, from lectures to tutorials, demonstrations and simulation workshops.

Each module will be presented as:
- Module Summary
- Aims and Objectives
- Lectures and additional teaching material
- Plan for assessment
- Additional one-to-one tutorials with individual students will be arranged if required

1) Lectures: The lectures will be delivered by members of the course faculty with occasional 'guest lectures' for selected topics.

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2) Lecture notes and document reading material: These will be maintained on QMPlus in the form of Word documents and/or PDFs. Additionally, topics may be covered in the form of guided reading – with a reading list or short series of scientific papers to read followed by questions or exercises.

3) Seminars / Tutorials: Some topics may be covered in face to face seminars or tutorials. These will be based around a topic or around a series of relevant articles from scientific journals.

4) Podcasts: Some of the taught material may be delivered by podcast. Some exercises (for example guided reading, critical appraisal, guidelines review) may be introduced by podcast together with instructions for the exercise. This material will be presented in audio files (MP3 format) with, where relevant, linked paper-based reading material.

5) Online reading lists: These will be maintained on QMPlus in the form of Word documents and/or PDFs. They will be linked where possible, to the journals in which the papers appear. There will also be a bank of relevant papers available as PDFs on the QMPlus page.

6) Simulation worksops will also be used to engage students in the non-technical aspects of clinical care, mainly communication and crisis resource management.

For distance learning students:
The taught part of the course will be delivered online via the SMD e-learning platform QMPlus. All student related-data will be managed and coordinated by the William Harvey education administration team. Enrollment will be administered in accordance with agreed QMUL admissions/registry procedures, and within agreed time-frames.

• Overall course information, including student handbook and timetables, will be distributed through the learning platform

• Induction material and a welcome chatroom session and / or online discussion thread will be set up at the start of the course between the distance learning students and the Programme Director.
• A variety of teaching strategies will be employed, most of which will be administered via the learning platform

• Each module is presented on-line as:
- Summary of the module
- Aims and Objectives
- Plan for assessment
- A live-chat tutorial will be conducted per module by one the academic staff

• Library facilities. All students registered on the course will have access to the college on-line library facilities. This gives access to a large number of relevant journals. Students will have access to other academic literature and journals via an ATHENS log-on in the same way as on-site students.

1) Lectures – screen capture with audio soundtrack. These lectures will be delivered by members of the course faculty with occasional 'guest lectures' for selected topics. Both types of lecture will be captured and presented in the same way.

2) Lecture notes and document reading material (word documents and PDF.) Topics will also be covered in the form of guided reading – with a reading list or short series of scientific papers to read followed by questions or exercises.

3) Online Seminars / Tutorials. Some topics will be covered in real-time online seminars, delivered by Skype (or similar technology). These will be based around a topic or around a series of relevant articles from scientific journals. The organisation of such synchronous support by voice / video seminars will will depend on the proportion and location of overseas students in order to circumvent any difficulties posed by differences in time zones. The sessions will be recorded so that students who were unable to tune in at the time, can have access to the discussions and the learning material.

All teaching modules include assignments in the form of a written essay, short answer questions and structured assessments such as MCQs. The average marks of all modules will constitute a summative assessment. The mark scheme and assessment rubric will be made available to students and the faculty.

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How will you be assessed?

Assessment for the course will include, but is not limited to the following and will vary between modules:

1. Quiz/MCQ at the end of each module. This will test the breadth and some of the details of knowledge gained in the modules. Marks and feedback will be provided instantly as soon as the students have completed the quiz.

2. Essays: This will enable student to critically appraise and distill the evidence base around chosen topics chosen. It will also give students the opportunity to improve their writing skills, be able to present information in figures and tables, as well as work to a deadline. Marks and feedback will be provided in a timely manner to help the students with development of their skills.

3. Short answer questions and case based studies: These will assess knowledge and the ability to write succinctly on a range of topics. These assessments test a breadth of relevant topics.

4. Oral presentations: these will test both knowledge and the ability to impart information to peers and teachers. Presentations are an important part of daily interactions, teaching, and discussions around provision of care. These assessments will help students to practice and develop these skills. The distance learning students will receive instruction on how to record their own presentations and submit as assessments.

All of these assessments will be designed with "teaching through assessment" principles to enrich the learning for the students. The essays will have grading rubrics to help focus the structure and depth required.

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.

To be eligible for an award of MSc:
 - Full-Time student must satisfactorily complete all the modules of the MSc: 8 taught modules (each of 15 credits at level 7) and a dissertation (60 credits).
 - Part-Time MSc students, the Dissertation is taken in the second year, and the remaining 8 modules are split over two years. This will split as 90 credits (6x15 credits) to be taken in year one, and 30 credits (2x15 credit taught modules) to be taken in year two + 60 credits dissertation.

To be eligible for an award PGDip:
 - Full Time student must satisfactorily complete: 8 taught modules (120 credits) in one year.
 - Part Time student must satisfactorily complete: 4 taught modules (60 credits) in year 1 and 4 taught modules (60 credits) in year 2 (students are allowed to select taught modules in order of their preference).

For PGCert students are required to complete 4 taught modules: PT student may select any four modules over one academic year.

Academic Year of Study   FT - Year 1

Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Research and Audit methodology	WHR7714	15	7	Compulsory	1	Semester 2
Decision making, communication and ethics	WHR7713	15	7	Compulsory	1	Semester 2

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Module Title	Module Code	Credits	Level	Module Selection Status	Academic Year of Study	Semester
Neurocritical care and trauma management	WHR7716	15	7	Compulsory	1	Semester 2
Special patient groups	WHR7715	15	7	Compulsory	1	Semester 3
Multidisciplinary team in critical care (DL)	WHR7719	15	7	Compulsory	1	Semester 3
Care of the unconscious patient	WHR7712	15	7	Compulsory	1	Semester 1
Pathophysiological basis of critical care	WHR7710	15	7	Compulsory		Semester 1
Supporting failing organs	WHR7711	15	7	Compulsory		Semester 1
Dissertation	WHR7718	60	7	Compulsory		Semesters 1-3

What are the entry requirements?

Applicants will normally possess a medical degree, a 2:2 or above at undergraduate level in Nursing, Physiotherapy or other related allied health professional degrees. Non-UK degrees are marked on a grading scale and must be equivalent to UK 2:2 degree.
Also, at least one year experience working in a hospital as a health professional is essential.

English requirements:

IELTS Academic: 6.5 overall including 6.0 in Writing and Speaking, and 5.5 in Reading and Listening.

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

The course will be continuously quality-reviewed by the Core Course Management Team made up of the faculty of the course, the external examiner as well as the education committee at the William Harvey Research institute. This process will include peer review of taught components, reviewing student feedback on lecture and module content and delivery, as well as information from PTES. A course participant will be invited to join the Student-Staff Liaison Committee.

Periodically, the continuing validity of the course aims and outcomes will be reviewed both internally and if necessary by involving external experts to ensure that appropriate actions are taken to remedy any identified shortcomings.

What academic support is available?

Precourse: All students will receive pre-course induction material including an online video outlining the course structure background, and planned assessments. They will also be provided with a yearly timetable of module dates and teaching times.
Induction: An online induction meeting with the programme director will be provided prior to the start of the course with plenty of time allocated for questions. A specific course handbook will also be provided.
All students will be allocated personal tutors whose role is to assist them with personal problems and to advise on pastoral issues.
There will be instructional videos on how to use QM+. The QM+ landing page will include the following:
 - Details of facilities at QMUL including IT services, library services, welfare, accommodation, finance etc.
 - Instructions on basics of scientific reading, writing and critical appraisal
 - Time management instructions

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The programme director and faculty contact details will be made available to all the students. The students can access help directly from the faculty via email or in person.

Education management team will be available via email or online to resolve any issues relating to course registration, fees, and problems and issues arising during the course.
Other services:
 - Access to student counselors within Queen Mary University of London.
 - Access to Teaching and Learning Support Services, which provides assistance and guidance e.g. dyslexia

Programme-specific rules and facts

N/A

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 such as 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

Specific to the course:
1. The learning outcomes for each module will be made explicitly clear . This will be available at the beginning of the module.
2. All reading material will be identified and most will be online (electronic), but also some will be on hard copy through library services at QMUL or purchase of text book. All reading material and resources will be checked to ensure that they are fully accessible.
3. Each module will have a reading list with the above guarantees.
4. All lectures will be recorded and available on Q-Review.
5. Much of the course material, timetables, learning outcomes, reading material and recorded podcats and videos will be on dedicated QM+ pages. These will be on a modular basis with each module having it's own page specially built for the course.
6. Assessments will take into consideration special arrangements for specific students as required.

Links with employers, placement opportunities and transferable skills

Healthcare providers, including the National Health Service, will benefit from employing students who have successfully completed this MSc. The aim of this course is to provide advanced specialist instruction to a higher qualification in perioperative medicine. The Chief Medical Officer Report "Safer Medical Practice" and Department of Health documents "High Quality Care For All"& "High Quality Workforce" emphasise and recommend Simulation, Clinical Skills Training and application of innovative approaches to education. Recent patient safety data from the National Patient Safety Agency (NPSA) suggests 1:10 patients are harmed in hospital by some complication, a significant proportion of these being caused by medical and nursing mistakes. This MSc will consolidate clinical training to a high level and reinforce technical and behavioural competencies essential for patient

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safety.

Programme Specification Approval

Person completing Programme Specification:

Dr Parjam Zolfaghari

Person responsible for management of programme:

Dr Nina Ravic

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

Date Programme Specification approved by Taught Programmes Board: