Programme Title: PGDip/MSc in Healthcare Research Methods

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/PGDip, Healthcare Research Methods FT, & VM
Name of Interim Award(s): PG Cert
Duration of Study / Period of Registration: 1 Year Full-Time & 2 – 4 years variable mode
QM Programme Code / UCAS Code(s):
QAA Benchmark Group:
FHEQ Level of Award: Level 7
Programme Accredited by:
Date Programme Specification Approved: 27 Sep 2012
Responsible School / Institute: William Harvey Research Institute

Schools which will also be involved in teaching part of the programme
William Harvey Research Institute

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

Programme Outline

The aim of the PGDip/MSc in Healthcare Research Methods course is to provide students with a multi-disciplinary perspective to facilitate their skills. This course is designed for individuals who need an understanding of the Healthcare Research Methods process and provides a detailed picture of the complex and highly interrelated activities of the development cycle for Healthcare Research Methods, from discovery to successful commercialisation.

The DL PGDip/MSc in Healthcare Research Methods course provides participants with the opportunities to, and increases the likelihood of getting into the hard to enter and highly competitive healthcare environment.

On completion of the course, successful students should have gained the following:

• To have developed an understanding of healthcare research organisation, decision making, regulatory advice, healthcare marketing and ethical issues in healthcare research and development.

• Knowledge to undertake critical appraisal of the research of others

• To have developed the skills to formulate their own research ideas, deliver the research and analyze the data.
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Through completion of a dissertation, students should gain experience in research methodology and techniques, through literature, designing a research project, and of project data analysis and presentation.

Aims of the Programme

The aim of the course is to provide participants with a multi-disciplinary perspective to facilitate the skills of post graduate students. It is intended that the course will provide a valuable opportunity for both British and overseas students who wish to gain more experience in understanding the Healthcare Research Methods process and obtain a higher degree before entering career in the Healthcare Research environment.

What Will You Be Expected to Achieve?

When completing the DL PGDip/MSc in Healthcare Research Methods students will be expected to achieve the following learning outcomes.

### Academic Content:

| A 1 | Demonstrate knowledge and understanding of how the human body works |
| A 2 | Understand pathology, pathophysiology of all systems and organs |
| A 3 | Understand healthcare organisation and decision making |
| A 4 | Develop essential skills and knowledge of clinical design methods relevant to healthcare research |
| A 5 | Develop problem solving skills and knowledge of clinical design methods relevant to healthcare research |
| A 6 | Learn critical appraisal skills using a case study approach to identify and solve practical, theoretical and technical problems in human studies. |
| A 7 | Gain knowledge in research methodology and skills in design of a research project. |
| A 8 | Develop skills in evaluation of the process and the use of various implementations in the marketing of medicine by the pharmaceutical companies |

### Disciplinary Skills - able to:

| B 1 | Understand regulatory framework governing good clinical research |
| B 2 | Integrate relevant pharmacology, pharmacokinetics and statistics related to drug development and the nature of evidence required for proof of efficacy and safety |
| B 3 | Evaluate the science, ethics and regulations pertaining to the development and review of new drug products in the UK and Europe. |
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<tbody>
<tr>
<td>B 4</td>
<td>Understand and interpret pre-clinical data and the phases of clinical trial design and monitoring involved in clinical trials</td>
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<tr>
<td>B 5</td>
<td>Understand the analysis of the factors which determine the usage of medicine and the influences of doctors, government, drug manufacturers and the public.</td>
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<td>B 6</td>
<td>Examination of the regulatory and ethical issues surrounding ICH, GCP, GLP, GMP, and GXP</td>
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<tr>
<td>B 7</td>
<td>Understand the clinical trial protocol design for diseases effecting respiratory, nervous, cardiovascular systems, immunological disorders and malignancies.</td>
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Attributes:

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<tbody>
<tr>
<td>C 1</td>
<td>Demonstrate problem solving ability</td>
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<tr>
<td>C 2</td>
<td>Demonstrate appropriate practical skills</td>
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<tr>
<td>C 3</td>
<td>Demonstrate autonomy in self directed learning.</td>
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How Will You Learn?

One of the major strengths of the course lies in the fact that the teaching staff consist of not only institute members but also involves top professionals working in the healthcare research industry and CROs. Our exceptional expert “panel” of internal as well as external lecturers is actively engaged with the course. Members of the WHRI who are teaching on our course are invaluable assets to the progression of the students on the course as they are not only intellectually stimulating them, but engaging them as self-directed learners, and more closely connecting them to the university and college as a community.

Teaching methods employed during this MSc course consists of lectures from the William Harvey Research Institute staff and outside experts, using well-established classic teaching methods in order to create a stimulating and effective learning environment.

How Will You Be Assessed?

Students will be assessed based on online submitted written assignments. The course team evaluates the progression of students on their written assignments, maintaining the highest quality of work as well as achieving the course learning objectives.

Format
Continuous assessment (module assignment)
For the continuous assessment mark, candidates will be assessed throughout the year in the form of objective assessment by written assignment.

Dissertation
The candidates will submit a written dissertation on a subject in which they have been supervised. The format of the dissertation will usually be literature or policy based. A viva on the dissertation may be required for borderline candidates. This will take place at the final board of Examiners meeting
All assignments will be double marked by the experts teaching on particular topics.
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**How is the Programme Structured?**

The modular nature of the course is designed to fit in with the needs of those students who are in full time employment. To obtain an MSc award all the modules (180 credits) have to be successfully completed. To obtain a PG Dip 120 credits are needed to be completed from the taught modules (not including WHRM998). To obtain a PG Cert 4 x 15 credit modules have to be completed (60 credits, but not including WHRM998 and WHRM999). The modular nature of the courses is designed to fit in with the needs of those students who are in full time employment. The taught element of the modules is delivered in three-day blocks every four to six weeks (approximately).

**MODULE 1. Health and the Human Body**
Module Code: WHRM912

**LEARNING OUTCOMES**
The learner will:
Demonstrate the appropriate use of clinical information for management of patients. Use their knowledge of anatomy, pathology and pathophysiology as a foundation for understanding the clinical presentation and management. Identify the common sites of interest with other healthcare practices. Moreover, students will be able to communicate with physicians and healthcare professionals in a collaborative way to plan patient care. Students will learn how to identify, monitor and manage anticipated fluctuations of healthcare quality. Furthermore, on completion of this module students will be able to apply their knowledge as a foundation for understanding of patients especially the sensitive groups such as the elderly.

**MODULE 2. Professional and Research Skills**
Module Code: WHRM935

**LEARNING OUTCOMES**
The learner will:
1. Critique the context within which research and audit are undertaken within the NHS and examine the contribution of the Healthcare Science workforce to undertaking cutting edge translational research for patient benefit and promoting innovation within the NHS.
2. Evaluate the difference between audit and research and know different types of research approaches including qualitative, quantitative and systematic review.
3. Appreciate the issues regarding current ethical approval processes for research and audit, the requirements for continuous monitoring, progress reporting, adverse event monitoring, study closure and archiving.
4. Appraise how clinical guidelines are produced and the concept of evidence based practice including the role of current statutory and advisory regulatory bodies.
MODULE 3. Clinical Study Design
Module Code : WHRM903

LEARNING OUTCOMES
The learner will:
• Demonstrate an understanding of financial factors that contribute to drug testing and development
• Understand the role of the various regulatory procedures involved in drug development

MODULE 4. Practical Aspects of Clinical Research & Early Drug Development
Module Code : WHRM904

LEARNING OUTCOMES
The learner will:
• Appreciate the role of guidelines in regulating and guiding research studies
• Understand the process of “first in man” studies
• Design simple single dose and repeat dose studies
• Integrate preclinical and clinical study information

MODULE 5. Ethics & Regulation in Clinical Research
Module Code : WHRM905

LEARNING OUTCOMES
The learner will:
• Understand the different national and international standards and requirements that govern drug research
• Appreciate the ethical issues that are involved in clinical research and why informed consent is the key to ethical research
• Be able to write a basic NRES application and understand the role of the LREC and R&D departments in research governance.

MODULE 6. Data Management: The Interpretation of Statistics & Pharmacokinetics
Module Code : WHRM906

LEARNING OUTCOMES
The learner will:
• Understand the difference between quantitative and qualitative research
• Choose the appropriate research method to answer a research question
• Understand the difference between nominal, ordinal, interval and ratio data
• Determine when parametric or non-parametric methods are appropriate
• Evaluate and critically appraise research findings

MODULE 7. Specific Topics in Clinical Trial Design and Elective Project
Module Code : WHRM933

LEARNING OUTCOMES
The learner will:
• Demonstrate an understanding of the diversity of human research studies.
• Understand the problems that may arise in special patient groups
• Appreciate the significance of outcome trials in research
• Demonstrate original thought when tackling a research question
• Systematically gather data on a particular issue
• Critically evaluate and review the issues involved in a contentious area of medical research, treatment or practice
• Develop a coherent argument for or against a contentious area of medical research, treatment or practice
MODULE 8. Health and Pharmaco-Economics
Module Code: WHRM909

LEARNING OUTCOMES
The learner will:
• Understand the importance of pharmacoeconomics in drug utilisation
• Appreciate the role of “quality of life” studies in outcome evaluation
• Make informed choices between treatment options based on QUALY, DALYs, etc
• Understand the differences between analysis methods
  • Cost-minimization analysis (CMA)
  • Cost-effectiveness analysis (CEA)
  • Cost-utility analysis (CUA)
  • Cost-benefit analysis (CBA)
• Discuss the role of NICE in determining treatment guideline

Module Code: WHRM910

LEARNING OUTCOMES
The learner will:
• Appreciate the regulatory complexity of marketing healthcare interventions
• Determine who the “customer” is
• Understand the increasing role of the internet
• Appreciate the issues involved in disease screening and health promotion
• Understand the role of “ghost” writing and communication agencies in medical education

MODULE 10. Dissertation
Module Code: WHRM911

LEARNING OUTCOMES
The learner will:
• Demonstrate an understanding of carrying out of a literature based research project.
• Understand the various aspects necessary to a successful scientific research project.

Skills: The learner will:
• Analysis: Display an awareness of the need for objectivity in scientific writing
• Synthesis: Understand how the results of research might be applied
• Evaluation: Appreciate the need for maintaining an up to date knowledge of current research
• Application: Be able to present a clear rational argument to support a thesis

Attributes:
The learner will:
• Access the learning resources available and use self-directed learning to cover the course content
• Provide feedback to their tutor as part of a process of self-reflection
## Academic Year of Study 1

<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>
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<td>Health &amp; the Human Body</td>
<td>WHRM912</td>
<td>15</td>
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<td>Data Management: The Interpretation of Statistics &amp; Pharmacokinetics</td>
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<td>Compulsory</td>
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<td>YEAR</td>
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What Are the Entry Requirements?

Criteria for admission to the programme:
Candidates should have a degree or equivalent in an appropriate subject (minimum entry criteria 2:2) from an approved educational establishment.

Or

Professional qualifications or sufficient experience to satisfy the head of division and course director of the applicant’s fitness to pursue the course of study. The postgraduate diploma will be a prerequisite to enter the PGDip/MSc in most cases.

Entry level guidelines for English Language
An ILETS score of ≥6.5 is required for this course.

The course is open to undergraduate medical students who wish to (and are eligible to) intercalate a Masters degree into their MBBS studies.
For these students there are entry criteria that differ from non-intercalating applicants - in addition to the equivalent English proficiency, intercalating students need to have:

Successfully completed at least three years of the MBBS, MbChB or equivalent medical course
(for clinically based masters this must include the equivalent of one year of patient based teaching (in hospital/GP practices/clinics))

Passed year 3 or 4 exams immediately prior to entry at the first opportunity
Demonstrate a clear and unequivocal interest in the field by written application and/or interview

For students internal and external to QMUL it is confirmed that the beginning of the first term for the following year starts after all the QMUL Masters assessments are completed

How Do We Listen and Act on Your Feedback?

Students on our course are never seen as "silent partners" in the enterprise of improving teaching. One way their voices can be heard is through completion of feedback forms for each module. The feedback forms gain the students views on the clarity, style of presentation, course material, stimulation and an overall rating of the lectures (please see example of a feedback form below). Student feedback is discussed with the lecturer and is encouraged to make necessary changes following student suggestions.

All students will be in a regular contact with members of the course team. Pastoral as well as academic support is offered on a regular basis. Students are encouraged to contact course team members via email, blackboard or by phone.

Assessment of effectiveness of student support mechanisms will be evaluated with the following means:
Continuous feedback to the students. Student feedback is an extremely important mechanism to facilitate the students learning experience. Feedback will be offered on drafts of coursework and academic progress following formative and summative assessment.

Staff-student liaison. Students are encouraged to keep in regular contact with the course team members to convey their experience and comments and to seek any advice or help they may need.
Assessment of action on student feedback.

Continuous student feedback throughout the year is an essential tool with a view to maintain as well as to improve the quality and student experience of the course.
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**Academic Support**

In addition to staff-student liaison, all students are allocated a personal tutor who can be contacted during office hours. The role of the personal tutor is to advise the student on any issues relating to the academic aspects of the course that the student may wish to raise. A senior tutor is also available for consultation if their own tutors are not available or if for any reason unsuitable. Also an Institute level Committee will be created and responsible for ongoing management of the Programmes.

**Programme-specific Rules and Facts**

- 

**Specific Support for Disabled Students**

The Charterhouse Square Campus is readily accessible to disabled students.

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**Links With Employers, Placement Opportunities and Transferable Skills**

Student employment prospects: The employers, which in this case include healthcare research organisations, and the NHS, etc. will greatly benefit from having students who successfully completed this PGDip/MSc. With the modernisation of medical education and the fact that the education and training of staff involved in healthcare has not kept pace with the scientific and regulatory changes that have occurred recently, this PGDip/MSc course will help accelerate understanding and improve knowledge that is essential for building confidence and experience.
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# Programme Specification Approval

| Person completing Programme Specification | Professor Atholl Johnston |
| Person responsible for management of programme | Professor Atholl Johnston |
| Date Programme Specification produced/amended by School Learning and Teaching Committee | 16:12:2016 |
| Date Programme Specification approved by Taught Programmes Board | 27 Sep 2012 |