APPLICATION HANDBOOK

Master of Research (Medical Research)
University of Brighton postgraduate Degree

Post-Graduate Certificate in Medical Research
University of Brighton postgraduate Certificate

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Introduction

The **MRes Medical Research** and the **PGCert Medical Research** are postgraduate qualifications offered by the University of Brighton via the Brighton & Sussex Medical School’s Division of Medical Education. They are designed for part-time or full-time study to meet the educational needs of those whose career might have medical research as a substantial component, or as the basis for entry into a PhD or MD degree.

These are open to all. However, the main student group comprises BSUH Academic Clinical Fellows (ACFs), NHS research registrars and doctors working in the pharmaceutical industry or employed in an NHS setting where medical research is a function of their day-to-day activity. The PGCert is of particular relevance for F2’s and Academic F2’s who are not able to pursue the whole MRes program. These Courses are also relevant to dental trainees and other professional who might engage in health research.

The content of the course includes a range of scientific and clinical research methodologies and statistical methods. It is research-based, with core teaching materials drawing from published research and current research projects within BSMS.

Aims and Learning Outcomes for the Course

Aims

The aim of the course is to provide high quality education and training in health research for those who might be engaged in it. It aims to address an identified gap in the educational needs of doctors planning a career in research, or as preparation for a PhD or MD or as part of the preparations for an existing research programme.

The course objectives are:

- To provide robust education in various aspects of research to compliment and support research exposure and experience for academically-gifted medical and dental trainees and research registrars;
- To develop independent researchers of the future, able to compete for Research Training Fellowships- e.g. leading to a PhD or MD to apply for research funding grants, and further postdoctoral research;
- To contribute to the NHS drive to develop the vibrant academic community essential for state of the art healthcare.
Learning Outcomes

MRes Award

By the conclusion of the Master’s programme students will be able to demonstrate all of the Learning Outcomes from the Mandatory modules plus those of their Optional modules, and the Dissertation module.

Learning outcomes for each module are detailed below:

- an advanced knowledge of recent advances within their field of study (MDM100);
- a critical understanding of major research designs and methodologies (MDM10; MDM12);
- a systematic understanding of hypothesis testing, measures of association, and descriptive and inferential statistics (MDM10; MDM12; MDM66; MDM100);
- critical analysis of the role of epidemiology in investigating public and environmental health issues (MDM12);
- a critical awareness of the role of bias, chance and confounding in research (MDM10; MDM12; MDM66; MDM100);
- an awareness of the ethical aspects, research governance, data protection and regulatory framework of their research activity (MDM10; MDM112; MDM100);
- a critical appreciation of diversity, equal opportunities patient and public involvement in research (MDM112; MDM10; MDM100)
- an awareness and knowledge of managing a clinical research study and assuring compliance with standard guidelines for ethical conduct resulting in a research publication (MDM112; MDM100)
- an understanding of economic principles in relation to health management with the aim of applying the knowledge to designing healthcare research and critically appraising health economic studies (MDM113)
- critical and systematic development, justification and costing of a research proposal (MDM10; MDM112; MDM100);
- effective and appropriate data collection and analysis methods (MDM10; MDM66; MDM100);
- autonomous project management through time management, goal and deadline setting (MDM10; MDM112; MDM100);
- critical analysis of their own and other research work (MDM10; MDM12; MDM100);
- effective communication of project plans and results to peers, seniors and juniors (MDM10; MDM12; MDM66; MDM100; BSMS research seminars).
- effective and appropriate planning in relation to managing healthcare research studies (MDM10; MDM112; MDM100)
- capacity to critically appraise published health-economic studies and to develop research studies incorporating health economic indicators (MDM113)

Entry Requirements

The MRes is primarily aimed at BSUH Academic Clinical Fellows. Applications from other NHS staff, research registrars, doctors in the pharmaceutical industry and others employed in a setting in which
research is a function of their everyday activity will also be considered. The PGCert is open to all who wish to enhance their research knowledge and skills.

Minimum entry requirements for the MRes:

BSMS Academic Clinical Fellowship or evidence of involvement in an ongoing research programme, award of a research grant or employer support for a locally-funded research project intended for publication.

All applications will be subject to the University Equal Opportunities Policy. Students for whom English is not a first language must demonstrate an acceptable standard of comprehension and communication in the English Language (IELTS: minimum overall score of 7.0 and 7.0 for the writing element).

There will be an Induction Day for all successful applicants and you are strongly recommended to attend. The Induction Day will be held on Wednesday 14th September 2016.

Structure of Course

The course can be studied either full time or part time. There are four mandatory modules for the MRes Medical Research:

- MDM10: Research Methods and Critical Appraisal (20 credits)
- MDM12: Epidemiology (20 credits)
- MDM66: Essential Statistics for Medical Research (20 credits)
- MDM100: Dissertation (100 credits)

All students are required to study these four modules and to choose one further optional module.

MRes in Medical Research (180 credits)

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<th>Module</th>
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<tr>
<td>MDM10 Research Methods and Critical Appraisal</td>
<td>Mandatory (20 credits)</td>
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<td>PLUS</td>
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<tr>
<td>MDM12 Epidemiology</td>
<td>Mandatory (20 credits)</td>
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<tr>
<td>PLUS</td>
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<tr>
<td>MDM66 Essential Statistics for Medical Research</td>
<td>Mandatory (20 credits)</td>
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<tr>
<td>PLUS</td>
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<tr>
<td>MDM112 Healthcare Research Management</td>
<td>Optional (20 credits)</td>
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<td>OR</td>
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<tr>
<td>MDM34 Evidence-based Practice</td>
<td>Optional (20 credits)</td>
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As high levels of critical analysis of original research is required throughout the course of study, students are encouraged to undertake MDM10 first as this module provides both consideration of the appropriateness and the quality of the research designs used in primary and secondary research articles.

Timetable

A complete list of the modules and the dates they are scheduled to run will be available from June.

Please contact the Programme Administrator for further information.
Module Descriptions

Research Methods and Critical Appraisal
The module aims to provide students with an understanding of how to use evidence in their specialist area. It aims to provide students with an understanding of research methods in health and social care and the ability to relate appropriate methods to research questions. Students will be equipped to search and critically review the literature, to develop and justify a research proposal, and to anticipate potential ethical issues in their research proposal.

Essential Statistics in Health and Medical Research
This module is specifically designed for doctors and other health professionals who wish to improve their understanding and use of statistical methods and techniques. It is a pragmatic module and participants will be able to apply their learning immediately to practical applications using SPSS. They will produce reports demonstrating their ability to manipulate, interpret and apply data in real life and research situations.

Epidemiology
The module promotes the understanding of epidemiological theory and practice as a basic science in public health. It explores techniques, analysing the value and importance of epidemiological principles to health care practice.

Evidence Based Practice
This module is suitable for those engaged in a health setting such as general practitioners, practice nurses, physiotherapists, etc. who are undertaking clinical duties in daily lives, or those students that are in a master’s programme and who wish to enhance their skills in applying research literature, policies and guidelines. The module aims to provide students with an appreciation of the elements of evidence based practice and its role in decision making.

Healthcare Research Management
This module is specifically designed for doctors and other health professionals who wish to improve their understanding and abilities in the management of research projects. It is a pragmatic module and participants will be able to apply their learning immediately to their research projects.

Applied Health Economics
This module is specifically designed for doctors and other health professionals who wish to improve their understanding and use of health economic data in clinical decision making process. It will also allow them to design studies that assess health economic aspects in their clinical research projects. It is a pragmatic module and participants will be able to apply their learning immediately to their research projects.
Fees

For fee information please contact: enquires@brighton.ac.uk or visit the following link:
http://www.brighton.ac.uk/studentlife/money/

Teaching Staff

Academic staff from the Division of Medical Education as well as other staff from the Faculty of Health and Social Science and other Faculties in the University, are involved in the teaching. Specialist teaching may be provided by consultants, specialists and other clinical staff from Trusts and organisations in and around the region. The extensive contribution of expert practitioners to the teaching of the modules is a distinctive feature of courses within postgraduate medicine at the Division of Medical Education.

Teaching and Learning Methods

As with all Masters courses, there is a considerable degree of independent study. Teaching methods encompass lectures, whole group discussions, small group discussions, critical appraisal workshops and individual tutorials. Maintaining employment throughout the course ensures the transfer of knowledge and skills from the course into the workplace.

Assessment

Most modules require an in-depth evaluation of a topic chosen by the student and agreed with the module leader. It is normally a 3,000 word written assignment. The Dissertation is a 16,000 word project of the students’ own choice.

How to Apply

Please apply online via the following link:
http://www.bsms.ac.uk/postgraduate/taught-degrees/

And Finally.....

We do hope that you find that this programme meets your needs. If you have any further queries that will help you to decide if this is the right development for you, we would be pleased to hear from you. Do make contact with the Programme Administrator for this course. Learning can be fun as well as hard work so do choose what suits your needs best and good luck with your decision!

Please note details in this handbook are subject to periodic review and may involve minor changes.