Programme Specification (Postgraduate)

Date created/amended: 02 July 2018

For 2019/20 entry

1. Programme title(s):

MSc in Medical Research (Intercalated), PG Certificate †

† Postgraduate certificate is an exit award only

2. Awarding body or institution:

University of Leicester

3. a) Mode of study:

Full-time

b) Type of study:

Campus-based

4. Registration periods:

The normal period of registration for the MSc is 11 months

The maximum period of registration for the MSc is 24 months

5. Typical entry requirements:

Successful completion of 3 years of MBChB or MBBS curriculum at a UK medical school, or having a relevant BSc degree in health or life sciences at 2i level or above, and having successful completion of 2 years of MBChB or MBBS curriculum at a UK medical school. In either case, students must be in the upper 9 deciles of their cohort. The rationale for this is that the usual criteria for acceptance onto a Master's course is that the applicant has a first degree with either first or second class honours. There is therefore an academic threshold to be reached before acceptance onto an MSc, and the requirement to be in the upper 9 deciles is a parallel prerequisite for acceptance.

6. Accreditation of Prior Learning:

No APL will be accepted.

7. Programme aims:

The proposed new course aims to provide students with a thorough grounding in principles underpinning medical research, in its widest sense, with formal structured teaching. Students will also have hands-on experience of conducting their own research project, working under supervision of medical scientists and clinicians directly involved in active research. Students will study for a Master's qualification so that (if successful) they will gain an additional 4 points as part of your Educational Performance Measure. (With an iBSc students would gain 4 points with first-class honours, 3 points with a 2i, 2 points with a 2ii.) By providing broad-based formal teaching through the taught modules students will be well-placed to progress to a doctoral degree in the future (not necessarily in the same subject area), should they choose to do so. The new programme emphasises the importance of developing skills in communication of science to non-specialist and lay audiences, which is a valuable skill for future medical practitioners whether or not they continue to have a research strand within your career.

8. Reference points used to inform the programme specification:

- University of Leicester Discovery-Led and Discovery-Enabling Learning Strategy 2016-2020
- University of Leicester Assessment Strategy 2017-2021
- University of Leicester Periodic Developmental Review Report

Framework for Higher Education Qualifications in England, Wales and Northern Ireland. This intercalated degree will be at Level 7 of the Higher Education Qualification scale.

- http://www.gmc-uk.org/10a_annexa.pdf_25397630.pdf
  - http://www.gmc-uk.org/education/standards.asp
  - University of Leicester Annual Developmental Review Process
  - Senate regulations for Taught Postgraduate Programmes
  - QAA Master's Degree Characteristics Statement 2015

9. Programme Outcomes:

Unless otherwise stated, programme outcomes apply to all awards specified in 1. Programme title(s).

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
(a) Discipline specific knowledge and competencies		
Knowledge		
Demonstrate high-level knowledge of medical research in general (PG Cert) and a specific medical scientific research topic, at the forefront of knowledge related to their project.	Lectures, seminars and workshops that form part of the taught course element of this MSc. Furthermore, students will engage in self-directed learning to gain the necessary background knowledge in their chosen topic to allow them to conduct independent research. They will be expected to attend (and contribute to) journal clubs and departmental seminars within their host department.	Students will be assessed by means of coursework (essays, written reports, critical appraisals) as part of the taught modules (PG Cert). They are required to produce two posters (the first is formative only). They will write a dissertation (12,000 words for a quantitative project or 20,000 words for a qualitative project) for their project (MSc).
Concepts		
Define and critically appraise key concepts and theories underpinning medical research (PG Cert). Recognise the extent to which these relate to their own research project (MSc).	Lectures, seminars, directed and self-directed reading and study, group work, workshops, consultation with teaching staff.	Summative assessments (written reports and essays, oral presentations), all as part of taught modules (PG Cert). Also demonstrated in their project dissertations (MSc).
Techniques		
Demonstrate a detailed, high-level knowledge of a chosen medical research topic and the appropriate research techniques (wet lab, epidemiological, clinical, qualitative, etc). Recognise if and when their research techniques need to be adapted to new or changing experimental situations. (MSc)	The students will be supported by their supervisor	The precise key techniques will depend on the areas of interest selected by the students. The summative poster presentations and dissertation will be the means of demonstrating that the student has achieved the intended learning outcomes (MSc).

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Critical analysis		
Critically appraise data and results, and critically review literature. Evaluate the quality of methods and evidence used in published work (PG Cert). Recognise and acknowledge the strengths and weaknesses of their own research, and suggest solutions to address limitations (MSc).	Seminars, directed and self-directed reading and study, group work, team problem solving activities and consultation with teaching staff.	Summative assessment (written reports and essays, oral presentations) (PG Cert). The research dissertation (in particular the review of literature, where critical review of existing literature is expected) (MSc).
Presentation		
Present knowledge, arguments and evidence relating to medical and scientific research, clearly and critically in a variety of written, visual and oral formats.	Directed and self-directed study, group work and feedback from peers and staff.	Written reports and essays, oral presentations, poster presentations, written assignments (PG Cert), and the dissertation(MSc).
Appraisal of evidence		
Demonstrate awareness of experimental methods, project design, approach to analysis and possible sources of bias	Seminars, directed and self-directed reading and study. Research project supervision.	Written reports and essays, oral presentations, poster presentations, written assignments (PG Cert), and (MSc) the dissertation.
(b) Transferable skills		
Research skills		
Demonstrate ability to critique research project design (PG Cert), including that of their own project (MSc). Apply appropriate research methodology; analyse and interpret data; use of statistical techniques where necessary	Workshops (including computer-based classes) and consultation with staff. Independent research and project supervision	Written reports and oral presentations. Summative assessments (PG Cert) and dissertation (MSc).
Communication skills		
Communicate orally and in writing, with clarity and coherence, concepts and arguments relevant in Medical Research.	Seminars, group work, and consultation with teaching staff Feedback from poster sessions. Workshops on writing-up dissertation and long documents	Written reports, poster presentations, and oral presentations. Summative assessments (PG Cert) and dissertation (MSc).
Data presentation		
Present methods, findings and conclusions from data analysis in a variety of formats (written, visual and oral)	Seminars, workshops, and feedback on oral and written work and poster presentations	Written reports, poster presentations, and oral presentations (PG Cert). Project dissertation (MSc).
Information technology		
Demonstrate the effective use of IT for accessing databases and scientific literature; manipulating, processing and presenting data; use of word processing packages to produce, format and present written work professionally.	Workshop on using word processor packages for long documents. Project-specific supervision on relevant databases and data analysis software	Use of referencing and word processing in project dissertation (MSc). Powerpoint skills by poster presentation. Databases and analysis in project dissertation (MSc).

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Problem solving		
Demonstrate ability to identify specific problems (practical, theoretical, logistical) common to medical research (PG Cert), and problems specific to individual project (MSc).	Lectures, seminars, workshops and clinics on statistical methods. Research project supervision.	Written presentations (PG Cert), and (MSc) supervisor's report.
Working relationships		
Demonstrate the ability to work as part of a group	Group tasks as part of taught modules. Working in a shared laboratory or clinical environment	Contribution to seminars and workshops(PG Cert). Project supervisor's report (MSc).
Managing learning		
Demonstrate the acquisition of the skills and attributes necessary for lifelong learning, including: intellectual independence, effective time management, planning and organisation, knowing when to ask for help, professional attitude to colleagues, research honesty, ethical frameworks	Feedback on presentations, which feature in all branches. Skills developed within the research project by interaction with supervisor.	Successful performance in assessments (PG Cert). Supervisor's report (MSc).
Career management		
Demonstrate career advancement, e.g. by networking, and by dissemination of research findings	Interaction with staff and other students at different points on their career. Encouragement (where appropriate) to present research findings, both by publication and by conference attendance, with the chance to network.	(MSc) Abstract submission.

10. Special features

The programme is unique in that it provides students with an opportunity to engage with a research project over a long period of time. Comparable intercalated Masters' courses at other institutions tend to provide medical students with a smaller, shorter research component. Our experience indicates that students value the chance to develop their skills over time, anda more substantial project increases the chance of presenting their work at national or international meetings. The taught modules that are integral to the programme provide generic research training in qualitative and quantitative methods, and enable students to see medical scientific research in a wide context. This will provide them with a broad foundation if they continue to pursue research later in their careers.

11. Indicators of programme quality

- The programme will be subject to standard University of Leicester procedures for quality assessment, including Annual Developmental Review, submitted to the College Academic Committee.
- External examiners will be appointed in line with Senate regulations
- The programme's teaching staff will engage with University procedures for peer assessment of teaching and marking, and will be encouraged to engage with relevant staff development opportunities and the HEA fellowship scheme.
- A student representative will be a member if the Intercalated Degrees committee and attend meetings for discussion of the unreserved portion of the agenda.
- Periodic Developmental Review will ensure the course continues to deliver a relevant worthwhile and fulfilling opportunity for the students.

12. Scheme of Assessment:

As defined in Senate Regulation 6: Regulations governing taught postgraduate programmes of study.

13. Progression points

As defined in Senate Regulation 6: Regulations governing taught postgraduate programmes of study.

The first progression point will take place in March when final marks for two taught modules ('Fundamentals of Applied Health Research' and 'Quantitative Methods in Applied Health Research') will be reviewed. If a student has failed either or both modules with a mark of <40% (following re-sit) they will be referred to the Board of Examiners with a recommendation that they be withdrawn from the programme. The second progression point takes place in late April, when the marks for 'Qualitative methods in Applied Health Research' and 'Science, Society, and Responsible Research' are reviewed in conjunction with marks from previous modules. Students may continue to study the research project if they have 30 credits (2 modules) with marks between 40 and 50%. If a student has failed any modules with a mark of <40% (after re-sit) they will be referred to the Board of Examiners with a recommendation that they be withdrawn from the programme. The maximum number of taught modules that a student will be permitted to re-sit will be 30 credits (two modules)

If a student should fail the research project component of the course they will be recommended for a Postgraduate Certificate (Medical Research) if they meet the criteria set out in Senate Regulation 6..

14. Rules relating to re-sits or re-submissions:

As defined in Senate Regulation 6: Regulations governing taught postgraduate programmes of study.

15. External Examiners reports

16. Additional features (e.g. timetable for admissions)

See module specification database http://www.le.ac.uk/sas/courses/documentation

Appendix 1: Programme structure (programme regulations)

Module code	Module title	Semester	Credits
MD7431	**Fundamentals of Applied Health Research**	1	15
MD7432	**Quantitative Methods in Applied Health Research**	1	15
MD7433	**Qualitative Methods in Applied Health Research**	2	15
MD7438	**Science, Society and Responsible Research**	1 & 2	15
MD7436	**Research Project**	1 & 2	120
OR			
MD7437	**Research Project (Qualitative)**	1 & 2	120

Appendix 2: Module specifications