



## Programme Specification (Postgraduate)

FOR ENTRY YEAR: 2024/25

Date created: 01/04/2021

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Version no. 1

### 1. Programme title(s) and code(s)

MRes in Cardiovascular Science

\*Postgraduate Certificate in Cardiovascular Science

#### Notes

\* An award marked with an asterisk is only available as an exit award and is not available for students to register onto.

#### [HECOS Code](#)

HECOS Code	%
100270	100

### 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 MRes is 12 months

The maximum period of registration for the MRes is 24 months.

### 5. Typical entry requirements

Students applying for BHF 4y PhD studentship programme, for which this MRes constitutes year 1, will require a minimum of a 2i undergraduate degree and will undergo a selection process including interviews.

Other eligible students will have as a minimum an undergraduate degree (2ii) in a related field of study (e.g. Biological Sciences, Physiology, Medical Physiology).

Students are required to demonstrate English proficiency in line with the requirements of Senate Regulation 1. Students need to achieve a score of 90 in the Test of English as a Foreign Language (TOEFL) or an average score of 6.5 in the International English Language Testing System (IELTS), with a minimum score of 6.0 for writing.

## 6. Accreditation of Prior Learning

Accreditation of prior learning (APL) is not accepted for exemptions from modules on the programme.

## 7. Programme aims

The programme aims to develop students' understanding of how cardiovascular research can be translated from bench findings to clinical outcome through participation in the analysis of data from ongoing research projects. Successful completion of the course will enhance students' employment prospects within an academic or industrial research setting, and develop students' skills to enable further study at doctoral level (PhD). For a large part of their studies, students will integrate within a team that advances cardiovascular disease research through the exploration of both fundamental science and clinical research at the forefront of the discipline. Students will develop critical analysis of data and research methodologies through a variety of activities including through the opportunity to participate in world leading biomedical research studies and clinical trials.

## 8. Reference points used to inform the programme specification

- QAA Characteristics Statement: Master's Degree (2020)
- There are no specific benchmark statements for this programme, but the QAA benchmarking statements for biological sciences, medicine and related subjects have been borne in mind so that the programme and curriculum have been informed by the specific subject knowledge, abilities and skills in these statements.
- University EDI Strategy
- Framework for Higher Education Qualifications (FHEQ)
- UK Quality Code for Higher Education
- [University Education Strategy](#)
- [University Assessment Strategy](#) [login required]
- University of Leicester Periodic Developmental Review Report
- External Examiners' reports (annual)
- United Nations Education for Sustainable Development Goals
- Student Destinations Data

## 9. Programme Outcomes

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

### a) Discipline specific knowledge and competencies

#### i) Knowledge

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To demonstrate core knowledge of the field of cardiovascular research and how research methodologies can be applied to answer unmet clinical needs.	Lectures; seminars; laboratory practical classes; computer practical classes; directed reading; independent research; project mentoring; project supervision (MRes only).	Research Project (MRes only); written assignments, poster presentation, oral communication, computer-based exercises, problem-based examination, group work presentations.

ii) Concepts

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To demonstrate an in-depth knowledge of the methodologies used to investigate cardiovascular physiology/pathophysiology, the rationale and processes of experimental design, and good laboratory practice.	Lectures; seminars; laboratory practical classes; computer practical classes; directed reading; independent research; project mentoring; project supervision (MRes only).	Research Project (MRes only); written assignments, poster presentation, oral communication, computer-based exercises, problem-based examination, group work presentations.

iii) Techniques

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
Students will have a thorough grounding in quantitative research methods and be able to demonstrate their application to analysis of pre-existing data sets.  Students will demonstrate a range of key laboratory skills appropriate to their research project ranging from functional to a more genetic approach.	Lectures; seminars; directed reading; project supervision; project mentoring; research project (MRes only)	Research Project (MRes only); written assignments, poster presentation, oral communication, computer-based exercises, problem-based examination.

iv) Critical analysis

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To critically appraise the results of data acquired from cardiovascular fundamental science or clinical research, critically review the literature and critically review the quality and validity of their data analysis.	Lectures; seminars; directed reading; project supervision; project mentoring; research project (MRes only)	Research Project (MRes only); written assignments, poster presentation, oral communication, computer-based exercises, problem-based examination,

v) Presentation

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To present scientific data generally and in a form that is suitable to disseminate findings at scientific meetings, grant applications or in research papers.	Lectures; seminars; directed reading; research project laboratory meetings (MRes only)	Contribution to discussions in group work; laboratory presentations; poster presentation

vi) Appraisal of evidence

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To demonstrate good practice in data analysis, interpretation of data, and experimental design	Lectures; seminars; computer practical classes; directed reading; independent research; project mentoring; project supervision (MRes only).	Research Project (MRes only); written assignments, poster presentation, oral communication, computer-based exercises, problem-based examination, group work

**b) Transferable skills**

i) Research skills

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To maintain accurate research records, solve problems, analyse challenging datasets, and use statistical tests appropriate to typical research questions in cardiovascular research.	Lectures; seminars; computer practical classes; directed reading; independent research; project mentoring; project supervision (MRes only).	Research Project (MRes only); written assignments, poster presentation, oral communication, computer-based exercises, problem-based examination, group work; record keeping

ii) Communication skills

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To write scientific reports effectively, give effective oral presentations, and present material at a level of a scientific conference	Lectures; seminars; directed reading; independent research; project supervision (MRes only)	Research Project (MRes only); written assignments, poster presentation, oral communication, group work

iii) Data presentation

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To use appropriate statistical tests in data analysis and present data effectively.	Lectures; seminars; computer practical classes; directed reading; independent research; project mentoring; project supervision (MRes only).	Research Project (MRes only); written assignments, poster presentation, oral communication, computer-based exercises, problem-based examination, group work; record keeping

iv) Information technology

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To demonstrate competency in general computing, analysis software such as Excel and Graph Pad prism, along with word processing, bibliographic software and database searching.	Lectures; seminars; computer practical classes; directed reading; independent research; project mentoring; project supervision (MRes only).	Research Project (MRes only); written assignments, poster presentation, oral communication, computer-based exercises, problem-based examination, group work; record keeping

v) Problem solving

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To solve problems in the context of cardiovascular research effectively.	Lectures; seminars; computer practical classes; directed reading; independent research; project mentoring; project supervision (MRes only).	Research Project (MRes only); written assignments, poster presentation, oral communication, computer-based exercises, problem-based examination, group work

vi) Working relationships

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To manage projects, interact effectively with a supervisor (MRes only) and fellow students, display organizational skills and manage time effectively.	seminars; computer practical classes; independent research; project mentoring; project supervision (MRes only).	Research Project (MRes only); group work, computer practical classes, poster presentation, oral communication,

vii) Managing learning

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To develop new skills, manage information and develop specialization and interests.	Lectures; seminars; computer practical classes; directed reading; independent research; project mentoring; project supervision (MRes only).	Research Project (MRes only); written assignments, poster presentation, oral communication, computer-based exercises, problem-based examination, group work; record keeping

viii) Career management

Intended Learning Outcomes	Teaching and Learning Methods	How Demonstrated?
To develop own confidence in applying for positions relevant to cardiovascular research for further study, technical posts, or for positions where the transferrable skills developed in this course can be utilised.	Presentations from representatives from pharma; college research days for early career researchers, career services sessions	Monitoring of employability following on from the course

## 10. Special features

None

## 11. Indicators of programme quality

Programme quality will be monitored by an annual developmental review process report to College Education committee and the report from the external examiner.

## 12. Criteria for award and classification

This programme follows the standard scheme of taught postgraduate award and classification set out in [Senate Regulations](#) – see the version of *Senate Regulation 6 governing taught postgraduate programmes of study* relevant to year of entry.

### **13. Progression points**

As defined in [Senate Regulations](#) - refer to the version of *Senate Regulation 6 governing taught postgraduate programmes of study* relevant to year of entry.

In cases where a student has failed to meet a requirement to progress he or she will be required to withdraw from the course and a recommendation will be made to the Board of Examiners for an exit award where appropriate. Rules relating to re-sits or re-submissions

As defined in [Senate Regulations](#) - refer to the version of *Senate Regulation 6 governing taught postgraduate programmes of study* relevant to year of entry.

### **14. External Examiners reports**

The details of the External Examiner(s) for this programme and the most recent External Examiners' reports for this programme can be found at [exampapers@Leicester](mailto:exampapers@Leicester) [log-in required]

### **15. Additional features** (e.g. timetable for admissions)

n/a

**Appendix 1: Programme structure (programme regulations)**

The University regularly reviews its programmes and modules to ensure that they reflect the current status of the discipline and offer the best learning experience to students. On occasion, it may be necessary to alter particular aspects of a course or module.

**MRes Cardiovascular Science**

**Credit breakdown**

**MRes:**

Status	Year long	Semester 1	Semester 2	Other delivery period
Core taught	n/a	60 credits	n/a	n/a
Optional	n/a	n/a	n/a	n/a
Dissertation/project	n/a	n/a	n/a	120 credits

180 credits in total

**PGCert:**

Status	Year long	Semester 1	Semester 2	Other delivery period
Core taught	n/a	60 credits	n/a	n/a
Optional	n/a	n/a	n/a	n/a
Dissertation/project	n/a	n/a	n/a	n/a

60 credits in total

**Level 7/Year 1      2024/25**

Core modules

<b>Delivery period</b>	<b>Order</b>	<b>Code</b>	<b>Title</b>	<b>Credits</b>
Semester 1	1	MD7431	Fundamentals of Applied Health Research	15 credits
Semester 1	2	MB7057	Methods in “Bench to Bedside” Research	15 credits
Semester 1	3	MD7432	Quantitative Methods in Applied Health Research	15 credits
Semester 1	4	MB7058	Physiology and Pharmacology of Cardiovascular Disease	15 credits
Semester 2	5	MB7059	Research Project	120 credits

**Notes**

n/a

Option modules

n/a

**Appendix 2: Module specifications**

See taught postgraduate [module specification database](#) [log-in required]. Note - modules are organized by year of delivery.