

MS932-140 Extended Research Project

26/27

Department

Warwick Medical School

Level

Taught Postgraduate Level

Module leader

Leda Mirbahai

Credit value

140

Module duration

36 weeks

Assessment

60% coursework, 40% exam

Study locations

University of Warwick main campus, Coventry Primary
UHCW

Description

Introductory description

This module is part of the master's by Research Translational Biomedical Research. The MRes Translational Biomedical Research will provide theoretical and practical knowledge required for a career in biomedical translational research. The course will train graduates with an interest and aptitude for conducting impactful, high-quality research within the broad spectrum of discovery science and translational medicine. The overarching objective is to equip these individuals with the skills and knowledge necessary to contribute meaningfully to society through their research activities.

During this module, students will gain extensive experience in conducting high-quality research in real-world settings through placements in research laboratories based at Gibbet Hill Campus and/or University Hospitals Coventry & Warwickshire while adhering to the research process and producing a dissertation to meet university requirements.

To facilitate a well-informed decision-making process, the module incorporates a 'taster' period. During this phase, students will have the opportunity to explore two of their preferred project choices by actively participating in the respective research laboratories. This hands-on experience during the taster period is designed to provide students with valuable insights into two of their preferred project choices. As a result, students will be better equipped to make informed decisions regarding the selection of their extended research project topic.

Module aims

The overarching aim of the extended research project module is to enable students to gain in-depth specialised knowledge and expertise within their chosen research subject area, under the broad umbrella of translational biomedical research.

This module will provide students with first-hand experience of how to conduct high-quality research in world-leading research laboratories. This is achieved by providing students with a safe learning environment to develop a range of skills and knowledge from designing and conducting research projects to critical thinking and problem-solving skills. Furthermore, the module aims to develop and enhance the skills required to work both as an independent researcher as well as part of a research team and to learn how to communicate findings efficiently and effectively to diverse audience.

Outline syllabus

This is an indicative module outline only to give an indication of the sort of topics that may be covered. Actual sessions held may differ.

Students will undertake an extensive research project to further their practical skills and gain information in a real-world professional setting, enabling them to make informed career choices. Students will be expected to carry out significant experimental work.

The following aspects will be undertaken: planning, designing, developing, and executing experimental protocols; keeping records of methods, data, and other observations in laboratory notebooks; quantitative analysis of data; reporting, evaluating, interpreting, and presenting research data. Students will receive guidance on how to communicate their findings using different styles.

Learning outcomes

By the end of the module, students should be able to:

- To formulate a research question, produce a research proposal whilst considering ethical implications.
- To critically evaluate relevant literature and to demonstrate in-depth knowledge and understanding of the field of research
- To conduct a research project in the broad area of translational biomedical research, demonstrating a high level of understanding of the research processes involved.
- To collate, analyse and interpret data gathered and to critically discuss findings.
- To demonstrate transferable skills, values, and behaviours expected from a researcher
- To proficiently convey their research project, articulating essential discoveries and explaining the impact of their research while adapting their communication style to effectively engage and convey complex concepts to a non-specialised audience.

Research element

Placement in a research laboratory

Subject specific skills

Developed practical and cognitive skills of analysis and synthesis in the context of investigation within the field of translational biomedical research. To become immersed in complex disciplinary language, engage with interdisciplinary approaches and identify professional limits.

Transferable skills

Transferable skills gained from the completion of this module include:

Analytical and critical thinking skills

Communication skills (both written and oral)

Working independently and as part of a team under time pressure

Adaptability and adjustment to changing circumstances

Learning and managing new tools and technology (e.g.; databases, specialist packages etc.)

Critical evaluation of own data and/or work of others

Critical evaluation of self

Study

Study time

Type	Required	Optional
Seminars	5 sessions of 1 hour (0%)	5 sessions of 1 hour
Project supervision	66 sessions of 1 hour (5%)	
Placement	1,025 hours (73%)	
Private study	184 hours (13%)	
Assessment	120 hours (9%)	
Total	1,400 hours	

Private study description

Private study will include specific training at the placement site and the appraisal of the literature and other materials necessary for placement.

Costs

No further costs have been identified for this module.

Assessment

You must pass all assessment components to pass the module.

Assessment group D1

	Weighting	Study time	Eligible for self-certification
Assessment component			
Thesis produced to journal article format	40%	85 hours	No
A 10,000-word thesis produced in a format suitable for publication to demonstrate an advanced understanding of the project background, aims, objectives, and experimental strategy; presentation of experimental outputs; advanced skills in data interpretation and critical analysis. The written component will be double-marked. In the case of resit, capping will be at the component level rather than the module level.			
Reassessment component is the same			
Assessment component			
Recorded video presentation accompanied by written lay summary	10%	12 hours	No
Students are required to prepare a recorded video presentation (10 minutes) of their research accompanied by a brief summary (300 words) suitable for communication with a lay audience (both the video and the summary). The recorded video and the accompanying lay summary should provide a high-level overview of their research project, including the aims of the project, key findings, and the significance of the findings suitable for communication with a lay audience. Students will receive extensive training as part of the transferrable research skills module on different approaches for communicating science to different audiences, including videos and written formats. The optional drop-in sessions as part of this module will provide further support to students. In the case of resit, capping will be at the component level rather than the module level.			
Reassessment component is the same			
Assessment component			
supervisor rated component	10%	3 hours	No

Weighting**Study time****Eligible for self-certification**

Supervisor-rated component to assess skills and behaviour expected from a researcher. Four domains will be assessed using a marking rubric: Practical competence and working independently, Commitment to the project and professional behaviour, Problem-solving skills and taking initiative, and Communication skills both verbal and written. The supervisor-rated component will be moderated by a second marker. Supervisors are responsible for providing a clear justification for the mark awarded. Furthermore, they cannot penalise a student on any element of their performance (or mitigating circumstances) that was out of their control.

Note on preparation time: This includes all the work a student puts into conducting their project and preparation ahead of meeting with the supervisor for briefing.

In the case of resit, capping will be at the component level rather than the module level.

Reassessment component

Critical Reflection on lab performance

No

Students will be required to reflect on how they can improve their performance based on the feedback provided. The reflection should include a reflective analysis of the key skills (domains) required for successful completion of a research project.

Assessment component

Oral examination

40%

20 hours

No

The viva voce examination will include questions and discussion designed to: ascertain that the thesis embodies the candidate's own research; clarify aspects of the research presented in the thesis to ensure understanding; test the candidate's general comprehension of the field of study within which the subject of the thesis falls; test the candidate's acquaintance with the general literature of the subject, knowledge of the relation of the work to the wider field of which it is a part, and determine the respects in which the work advances, modifies, or otherwise affects this wider field of scholarship.

In the case of resit, capping will be at the component level rather than the module level.

Reassessment component is the same**Feedback on assessment**

Students will be offered feedback from their supervisor throughout the project. Students will have the opportunity to submit a formative project proposal and receive feedback from staff. In addition, students will receive training in how to create a short video for lay audience and receive feedback. Standardised rubrics will be used for marking in line with the WMS postgraduate assessment criteria, including submission to plagiarism (similarity matching) software. Individualised feedback

will also be provided using rubrics forms. Supervisors will also provide formative feedback on performance using a standardised form.

[Past exam papers for MS932](#)

Availability

There is currently no information about the courses for which this module is core or optional.