



LEEDS
BECKETT
UNIVERSITY

Course

Specification

MSc Biomedical Science

Course Code: MSBIS

2024/25

leedsbeckett.ac.uk

MSc Biomedical Science (MSBIS)

Applicant Course Specification for 2024/25 Postgraduate Entrants

Confirmed in November 2023

General Information

Award	Master of Science Biomedical Science
Contained Awards	Postgraduate Certificate Biomedical Science Postgraduate Diploma Biomedical Science
Awarding Body	Leeds Beckett University
Level of Qualification and Credits	Level 7 of the Framework for Higher Education Qualifications, with 180 credit points at Level 7 of the Higher Education Credit Framework for England.
Course Lengths and Standard Timescales	Start dates will be notified to students via their offer letter. The length and mode of delivery of the course are: <ul style="list-style-type: none">• 1 year (full time, campus based)• 2 years (part-time, campus based)
Part Time Study	Part-time delivery is across two days per week across two years of study.
Location of Delivery	The majority of teaching will be at City campus but on occasion may be at Headingley campus.
Entry Requirements	Admissions criteria are confirmed in your offer letter. Details of how the University recognises prior learning and supports credit transfer are located here: https://www.leedsbeckett.ac.uk/student-information/course-information/recognition-of-prior-learning/ Admissions enquiries may be directed to: AdmissionsEnquiries@leedsbeckett.ac.uk .
Course Fees	Course fees and any additional course costs are confirmed in your offer letter. Fees enquiries may be directed to Fees@leedsbeckett.ac.uk .

Timetable Information

Timetables for Semester one will be made available to students during induction week via:

- The Student Portal (MyBeckett)
- The Leeds Beckett app

Any difficulties relating to timetabled sessions may be discussed with your Course Administrator.

Policies, Standards and Regulations (www.leedsbeckett.ac.uk/academicregulations)

There are no additional or non-standard regulations which relate to your course.

Key Contacts

Your Course Director	Dr Donna Johnson
Your Academic Advisor	Academic Advisors are assigned upon start of the course
Your Course Administrator	Jo Featherby, j.featherby@leedsbeckett.ac.uk

Professional Accreditation or Recognition Associated with the Course

Professional Body: Institute of Biomedical Science (IBMS)

Accreditation/ Recognition Summary

IBMS MSc accreditation ensures that a degree course demonstrates that students receive a wide-ranging, research informed scientific education and develop practical skills and experience that employers value.

Professional Body: Royal Society of Biology

Accreditation/ Recognition Summary

Masters Accreditation by the Society recognises programmes that support the development of specific skill sets, competencies and training which will enhance life and health science research. Accredited degrees fulfil the academic component of the Chartered Scientist programme.

The RSB is the leading professional body for the biological sciences in the UK. The Society represents over 18,000 biologists from all areas of the life sciences, as well as over 100 organisations which make up the diverse landscape of biology in the UK and overseas. The RSB offers members unique opportunities to engage with the life sciences and share their passion for biology.

Graduates from an RSB accredited MSc receive one year of free Associate membership of the RSB which will open up networks at a crucial time when applying for jobs. Whichever area of biology you wish to gain a career in, membership will help you:

- Stay up to date with what is happening across the life sciences
- Gain additional recognition for your skills and experience

- Develop your professional network
- Demonstrate your support for the future of biology

Course Overview

Aims

The aim of this course is to develop reflective learners able to take responsibility and be accountable for the process of their learning and its practical application. This will lay the foundation for career-long professional development and lifelong learning to support best professional practice and the maintenance of professional and personal standards and aspirations.

This MSc course combines a core of taught modules across the breadth of biomedical science, providing a wide range of practical and lecture sessions in cell biology, physiology, genetics and blood sciences as well as modules covering transferable skills such as problem solving, decision making, time management, organisation, communication and team working. The modules taught on this course give students the opportunity to cover a range of key biomedical science topics, maximising their ability to achieve diverse career goals.

In addition to the taught content of this course, the research project offers the opportunity to complete an independent research project and gain experience in a research/lab environment. Research project topics are provided from within each of the core areas and a full list of current topics will be provided when students arrive and will vary year on year.

The aims of the Masters in Biomedical Science are:

- To broaden knowledge and understanding of the methods and implications of research in the biomedical sciences field
- To enhance specialist knowledge in biomedical science and associated disciplines
- To develop professional, research-oriented scientists with excellent communications skills and an innovative and flexible approach to problem-solving
- To develop advanced technical scientific skills to provide a basis for a career in scientific research
- To develop independent, reflective lifelong learners

Course Learning Outcomes

- 1 Develop a systemic understanding of the sub-disciplines associated with Biomedical Sciences and identify and evaluate relevant literature to gain an understanding of the context of their research and practise in the wider field.
- 2 Demonstrate expertise in specialised and advanced research through the independent design and execution of a substantial research project, and prepare critical written and oral reports to effectively communicate their findings.
- 3 Develop transferrable skills such as problem solving, decision making, time management, organisation, communication and team working in order to effectively manage independent study and their research project.
- 4 Identify suitable practical and analytical methodologies and demonstrate the ability to apply them in order to produce and analyse data, and to compare and contrast such data with published literature.

- 5 Evaluate the potential impact of current research from different disciplines relevant to Biomedical Sciences, and integrate information from a range of sources to further the knowledge base.
- 6 Be able to evaluate and apply theoretical and methodological knowledge from a range of disciplines in order to formulate innovative solutions to problems and construct research questions.

In addition to achieving the course learning objectives, MSc graduates will have developed skills that enable them to:

- Work effectively in teams and independently
- Effectively communicate complex concepts to a range of audiences
- Have an effective working knowledge of key online resources such as Google Scholar, NCBI and Web of Science and organisational websites (e.g. NHS, CDC, PHE)
- Solve problems in an innovative and flexible manner
- Work calmly and efficiently under pressure
- Reflect on their learning and developmental needs

Master's degrees are awarded to students who have demonstrated:

- A systematic understanding of knowledge, and a critical awareness of current problems and/or new insights, much of which is at, or informed by, the forefront of their academic discipline, field of study or area of professional practice
- A comprehensive understanding of techniques applicable to their own research or advanced scholarship
- Originality in the application of knowledge, together with a practical understanding of how established techniques of research and enquiry are used to create and interpret knowledge in the discipline
- Conceptual understanding that enables the student:
 - To evaluate critically current research and advanced scholarship in the discipline
 - To evaluate methodologies and develop critiques of them and, where appropriate, to propose new hypotheses

Typically, graduates will be able to:

- Deal with complex issues both systematically and creatively, make sound judgements in the absence of complete data, and communicate their conclusions clearly to specialist and non-specialist audiences
- Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level
- Continue to advance their knowledge and understanding, and to develop new skills to a high level.

And holders will have the qualities and transferable skills necessary for employment requiring:

- The exercise of initiative and personal responsibility
- Decision-making in complex and unpredictable situations
- The independent learning ability required for continuing professional development

Teaching and Learning Activities

Taught sessions are predominantly in person though there may be online sessions. Where possible, live sessions will be recorded.

The course is designed to provide a core of learning within the first semester to develop skills associated with the design and execution of an individual research project, along with the first module of a strand of specialist biomedical science modules, develop students' knowledge of and skills associated with biomedical sciences research. In semester two, students complete a further specialist taught element of the course and commence work on their research project, which is completed during semester two. As this course is intended for those wishing to pursue a research career, there is considerable emphasis on the development of the research project and the development of scientific communication skills throughout the course. The core modules provide support for the development of critical and evaluative skills, awareness of current developments in biomedical science and associated disciplines and a structured approach to the planning and execution of a research project. Working with a supervisor/supervisory team, students draft their research protocol and complete the necessary Health and Safety and ethics clearance procedures, plan their work and carry it out methodically over the data collection period. Key milestones are included in the learning process to ensure that students are reflecting on their results to date and refining their experimental approach in light of this. The research project provides students the opportunity to develop the skills needed to plan and run a substantial piece of independent research and to experience a range of science communication methods.

This course proposes actions and targets to help incorporate cutting-edge approaches to learning, teaching and assessment into a re-energised curriculum that fully meets students' needs and prioritises the student learning experience, in line with the University's Learning and Teaching Strategy. Our approach concentrates on several key features:

- It is orientated towards the acquisition of generic key skills in addition to a specific knowledge base, enabling students to become independent lifelong learners
- Teaching and assessment methods facilitate the students' monitoring of their own progression through each module and the course and the effectiveness of this is also monitored
- The course management team are committed to fostering a supportive inclusive learning environment

Project Arrangements

Students are introduced to the project titles at the start of their course and they then have time to speak with members of staff about their projects. Students then have time to research the projects independently before submitting three choices (from three different supervisors). Students support their first choice by putting together a cover letter detailing their reasons for this choice and how this fits into their career plans. The cover letters are used to allocate students where a project is chosen by multiple students. While staff endeavour to allocate the first choice of project to each student, they are told that they could be allocated any one of their three choices.

Students are allocated to their supervisor following an allocation meeting and then must meet with their supervisor to discuss their project. Detailed preparation for projects is integrated into the Advanced Research Methods module through module content (COSHH, experimental design, ethics etc.) and through the assessment, where they have to put together a research proposal for their project. The proposal must detail methodological and analytical elements, as well as a justification of the project and a suitable

background. Students must also submit their risk assessments, COSHH and ethics forms before they are allowed to start their lab work.

Prior to starting in the lab, students undergo a thorough lab induction to introduce them to the requirements of working independently in the lab. Supervisors will carry out training in any required methods and work with the student until they are able to work independently. Regular meetings to discuss progress and issues are held. Students carry out their data collection/lab work throughout semester 2 up until an end date negotiated with their supervisor. Students have the opportunity to submit their thesis for formative feedback, with final submission in early September.

Your Modules

This information is correct for students progressing through the programme within standard timescales. Students who are required to undertake repeat study may be taught alternate modules which meet the overall course learning outcomes. Details of module delivery will be provided in your timetable. All modules are core.

Full time Semester one	Semester two
Science Communication (10 credits)	Pathology of Immune and Blood Diseases (20 credits)
Diagnostic Biochemistry (20c)	Professional Development (10c)
Diagnostic Microbiology (20c)	
Advanced Research Methods (40c)	Advanced Research Methods continued
MSc Research project (60c) (preparation S1, data collection S2)	MSc Research project continued

Part time Year 1 Semester 1	Semester 2
Science Communication (10 credits)	Pathology of Immune and Blood Diseases (20 credits)
Advanced Research Methods (40c)	Advanced Research Methods continued
MSc Research project (60c) (preparation S1, data collection S2)	MSc Research project continued
Year 2 Semester 1	Semester 2
Diagnostic Microbiology (20c)	Professional Development (10c)
Diagnostic Biochemistry (20c)	MSc Research project (data collection S2)

Assessment Balance and Scheduled Learning and Teaching Activities

The assessment balance and overall workload associated with this course are calculated from core modules. A standard module equates to 200 notional learning hours, comprising teaching, learning and assessment and independent study. Modules may have more than one component of assessment.

Assessment

Modules are assessed by coursework, examinations and practical skills assessments.

Workload

Approximate Overall Workload for the Course	
Teaching, Learning and Assessment	325 hours
Independent Study	1475 hours
Total	1800 hours

Learning Support

If you have a question or a problem relating to your course, your Course Administrator is there to help you. Course Administrators work closely with academic staff and can make referrals to teaching staff or to specialist professional services as appropriate. They can give you a confirmation of attendance letter, and a transcript. You may also like to contact your Course Rep or the Students' Union Advice team for additional support with course-related questions.

Student Services

If you have any questions about life at University, call into our Student Services Centre at either campus or contact Student Advice directly. This team, consisting of trained officers and advisers are available to support you throughout your time here. They will make sure you have access to and are aware of the support, specialist services, and opportunities our University provides. They also work on a wide range of projects throughout the year all designed to enhance your student experience and ensure you make the most of your time with us. Student Advice are located in the Student Services Centre in the Leslie Silver Building at City Campus and on the ground floor of the Priestley Building at Headingley Campus. The team can also be contacted via email at studentadvice@leedsbeckett.ac.uk, telephone on 0113 812 3000, or by accessing our online chat link, available on the student homepage.

Support and opportunities

Within MyBeckett you will see two tabs (Support and Opportunities) where you can find online information and resources for yourselves. The Support tab gives you access to details of services available to give you academic and personal support. These include Library Services, the Students' Union, Money advice, Disability advice and support, Wellbeing, International Student Services and Accommodation. There is also an A-Z of Support Services, and access to online appointments/registration. The Opportunities tab is the place to explore the options you have for jobs, work placements, volunteering, and a wide range of other opportunities. For example, you can find out here how to get help with your CV, prepare for an interview, get a part-time job or voluntary role, take part in an international project, or join societies closer to home.