



LEEDS  
BECKETT  
UNIVERSITY

# Course Specification MSc Medical Biochemistry

Course Code: MSMBC

2026/27

# MSc Medical Biochemistry (MSMBC)

## Applicant Facing Course Specification for 2026/27 Entrants

Confirmed at November 2025

### General Information

|   |   |
|---|---|
| <b>Award</b>                                  | Master of Science Medical Biochemistry  |
| <b>Contained awards</b>                       | Postgraduate Certificate Medical Biochemistry<br>Postgraduate Diploma Medical Biochemistry  |
| <b>Awarding body</b>                          | Leeds Beckett University  |
| <b>Level of qualification and credits</b>     | Level 7 of the Framework for Higher Education Qualifications, with 180 credit points at Level 7 of the Higher Education Credit Framework for England.   |
| <b>Course lengths and standard timescales</b> | Start dates will be notified to students via their offer letter. The length and mode of delivery of the course is: <ul style="list-style-type: none"><li>• 12 months (full time, campus based)</li><li>• 24 months (part time, campus based)</li></ul>  |
| <b>Part time study</b>                        | PT delivery is usually at half the intensity of the FT equivalent course, although there may be flexibility to increase your pace of study to shorten the overall course duration. Some modules may be delivered in a different sequence from that defined within this information set but the modules offered within each level are consistent. Please note that a work placement option is not generally available to PT students.  |
| <b>Location(s) of delivery</b>                | The majority of teaching will be at City campus but on occasion may be at Headingley campus.  |
| <b>Entry requirements</b>                     | Admissions criteria are confirmed in your offer letter. Details of how the University recognises prior learning and supports credit transfer are located here: <a href="https://www.leedsbeckett.ac.uk/student-information/course-information/recognition-of-prior-learning/">https://www.leedsbeckett.ac.uk/student-information/course-information/recognition-of-prior-learning/</a><br><br>Admissions enquiries may be directed to: <a href="mailto:AdmissionsEnquiries@leedsbeckett.ac.uk">AdmissionsEnquiries@leedsbeckett.ac.uk</a> . |
| <b>Course fees</b>                            | Course fees are confirmed in your offer letter. A breakdown of any additional costs is included on the online prospectus entry for this course.<br><br>Fees enquiries may be directed to <a href="mailto:Fees@leedsbeckett.ac.uk">Fees@leedsbeckett.ac.uk</a> .   |

## **Policies, Standards and Regulations**

<https://www.leedsbeckett.ac.uk/our-university/public-information/academic-regulations/>

Standard regulations apply to this course.

## **Professional Accreditation or Recognition Associated with the Course**

### **Professional body**

Royal Society of Biology (RSB)  
Institute of Biomedical Science (IBMS)

### **Accreditation/recognition summary**

#### **Royal Society of Biology:**

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

#### **Institute of Biomedical Science:**

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.

## **Timetable**

Timetables for Semester 1 will be made available to students during induction week via:

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

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

## Key Contacts

**Your course director**

Donna Johnson

**Your course administrator**

Jo Featherby, [j.featherby@leedsbeckett.ac.uk](mailto:j.featherby@leedsbeckett.ac.uk)

## Course Overview

### Aims

The aims of the programme are to:

- To broaden knowledge and understanding of the methods and implications of research in biochemistry and how this relates to a medical/clinical setting
- To enhance specialist knowledge in medical biochemistry 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

The programme of academic study is designed 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 biochemistry, with a focus on those aspects relevant to its use in the medical and clinical setting. This course will provide practical and lecture sessions in key areas including cell biology and physiology, pharmacogenetics, protein science and metabolic biochemistry 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 core subjects relevant to a career in the field of medical biochemistry and associated areas, 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.

### Course learning outcomes

At the end of the course, students will be able to:

|   |  |
|---|--|
| 1 | Locate, critically evaluate and assess current research in medical biochemistry and relate them to existing theoretical frameworks.  |
| 2 | Plan, carry out and analyse a substantial piece of individual research with the implementation of appropriate research strategies, and communicate the results in a variety of formats, including an oral defence of the work. |
| 3 | Develop transferrable skills such as problem solving, decision making, time management, organisation, communication and team working.  |
| 4 | Demonstrate the ability to carry out a range of laboratory and analytical techniques and procedures in line with those of a diagnostic or research laboratory.   |
| 5 | Evaluate the potential impact of current developments in medical biochemistry and propose novel approaches to further the knowledge base.  |
| 6 | Critically appraise the knowledge base from different disciplines to promote innovative solutions to current and relevant issues and demonstrate the ability to formulate research questions                                   |

## Teaching and Learning Activities

### Summary

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 medical biochemistry modules, develop students' knowledge of and skills associated with biochemical research with a focus on its application to medicine and in the clinical setting. In semester two, students complete the specialist taught element of the course and commence work on their laboratory project, which is completed during semester two and over the summer period. 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

### 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.

### Level 7

#### *Compulsory modules*

| Module title                         | Credits | Semester/<br>teaching period |
|--------------------------------------|---------|------------------------------|
| Science Communication                | 10      | 1                            |
| Diagnostic Biochemistry              | 20      | 1                            |
| Advances in Biochemical Pharmacology | 20      | 1                            |

|   |     |           |
|---|-----|-----------|
| Professional Development                | 10  | 2         |
| Pathology of Immune and Blood Diseases  | 20  | 2         |
| Advanced Research Methods               | 40  | Year-long |
| MSc Research project                    | 60  | Year-long |
| Number of credits of compulsory modules | 180 |           |

## Part time

### Year 1

| Module title                           | Credits | Semester/<br>teaching period |
|--|---------|------------------------------|
| Science Communication                  | 10      | 1                            |
| Pathology of Immune and Blood Diseases | 20      | 2                            |
| Advanced Research Methods              | 40      | Year-long                    |
| MSc Research project                   | 60      | Year-long                    |

### Year 2

| Module title                            | Credits  | Semester/<br>teaching period |
|---|----------|------------------------------|
| Advances in Biochemical Pharmacology    | 20       | 1                            |
| Diagnostic Biochemistry                 | 20       | 1                            |
| Professional Development                | 10       | 2                            |
| MSc Research project                    | As above | 2                            |
| Number of credits of compulsory modules | 180      |                              |

## Assessment and Scheduled Learning and Teaching Activities

The assessment balance and overall workload associated with this course are calculated from core modules. They have been reviewed and confirmed as representative by the Course Director.

A standard module equates to 200 notional learning hours, which may be comprised of teaching, learning and assessment, any embedded placement activities and independent study. Modules may have more than one component of assessment.

### Assessment

#### Level 7

Modules are assessed by coursework, examinations and practical assessments.

Assessments reflect the communication methods used in Biomedical Sciences research and key skills such as the design of research and the formulation of grant applications. In modules where there is a need for students to demonstrate both breadth and depth of knowledge and skills, more than one form of assessment is used.

The assessment journey for this master's level course is geared towards the goal of students producing a master's level research project thesis. This involves acquisition of the skills necessary to conceive a research question via critical evaluation of pre-existing scientific literature, prepare outlines of project ideas and develop laboratory practical competencies. These skills are developed and assessed through the core and specialist modules prior to the beginning of the research project. Students manage their own research project thereby developing leadership skills and by the completion of the project competencies in data presentation and analysis are both developed and assessed. The assessment journey therefore develops and assesses the range of skills involved in scientific research, from conception of a research project idea to delivery and presentation of results. Assessments earlier in the course which deal with critical evaluation of literature, completion of ethics procedures and risk analysis procedures are put into practice within the project module to consolidate these skills.

## Workload

| Overall Workload                  | Level 7    |
|-----------------------------------|------------|
| Teaching, learning and assessment | 325 hours  |
| Independent study                 | 1475 hours |
| Placement                         | -          |