UNIVERSITY OF WOLVERHAMPTON

# Course Specification

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| **Published Date:** | 30-Apr-2026 |
| **Produced By:** | Multi Type Usr Record For All Personnel |
| **Status:** | Validated |

# Core Information

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| **Awarding Body / Institution:** | University of Wolverhampton | | |
| **School / Institute:** | School of Pharmacy and Life Sciences | | |
| **Course Code(s):** | BM058P01UM<br>BM058P31UM | Full-time<br>Part-time | 12 Months<br>2 Years |
| **Course Title:** | MSc Biomedical Science | | |
| **Hierarchy of Awards:** | Master of Science Biomedical Science | | |
| **Language of Study:** | English | | |
| **Date of DAG approval:** | 14/Sep/2026 | | |
| **Last Review:** | | | |
| **Course Specification valid from:** | | | |
| **Course Specification valid to:** | | | |

# Academic Staff

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| **Course Leader:** | GAVIN MCNEE |
| **Head of Department:** | |

# Course Information

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| **Location of Delivery:** | University of Wolverhampton |
| **Category of Partnership:** | Standard Provision (Not delivered in partnership) |
| **Teaching Institution:** | University of Wolverhampton |
| **Open / Closed Course:** | This course is open to all suitably qualified candidates. |

## Entry Requirements:

Entry requirements are subject to regular review. The entry requirements applicable to a particular academic year will be published on the University website (and externally as appropriate e.g. UCAS

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Successful applicants will normally require a 2ii (or better) honours degree in Biomedical Science or in a subject with a high proportion of Biomedical Content (i.e. adequate background knowledge of biochemistry, microbiology, cellular pathology, haematology, genetics and immunology).

Students with lesser qualifications who can demonstrate relevant laboratory experience and knowledge (through APA/APEL) may also be accepted. English competence for international applicants should be in line with University requirements for Masters-level taught degrees (IELTS currently 6.5).

## Distinctive Features of the Course:

The University of Wolverhampton has a long-standing reputation for excellence in Biomedical Science education, offering both part-time and full-time education at MSc level for more than a quarter of a century. The course is accredited by the Institute of Biomedical Science (IBMS), reflecting its academic quality, clinical relevance, and professional standing, and is taught by a team of research-active academics and lecturer-practitioners with substantial experience in NHS pathology laboratories. Staff expertise spans key biomedical research areas such as cancer, diabetes, microbiology, molecular medicine and physiology, ensuring teaching is strongly research-informed and clinically current. Close links with local NHS services help ensure that learning remains aligned with contemporary laboratory practice and clinical aspects of the course are further emphasised in small group problem-based learning sessions, where clinical cases are explored through tutor-led discussions.

If you're curious about how the human body works and how diseases are diagnosed using cutting-edge laboratory technologies, this course is a great fit. Practical classes are embedded in all modules, and a key component of the MSc is the independent research project, where you will design and carry out an original investigation supported by experienced supervisors. Projects are undertaken in the University's state-of-the-art research facilities, developed as part of a recent campus redevelopment, and provide access to high-quality laboratory equipment and modern research environments.

The programme supports your professional development and employability, helping you strengthen advanced scientific thinking, data analysis, laboratory competence, and scientific communication. These skills are highly transferable and valued across research, clinical laboratories, healthcare organisations, industry, and further academic study, both in the UK and internationally.

## Educational Aims of the Course:

## Intakes:

September

January

## Major Source of Funding:

Office for Students (OFS)

## Tuition Fees:

Tuition fees are reviewed on an annual basis. The fees applicable to a particular academic year will be published on the University website.

| Year | Status | Mode | Amount |
|---|---|---|---|
| 2022/3 | H | Full Time | £11000.00 |
| 2022/3 | Overseas | Full Time | £14950.00 |
| 2022/3 | H | Part Time | £5500.00 |
| 2023/4 | H | Full Time | £11550.00 |
| 2023/4 | Overseas | Full Time | £15950.00 |
| 2023/4 | H | Part Time | £5775.00 |
| 2024/5 | H | Full Time | £11836.00 |
| 2024/5 | Overseas | Full Time | £16450.00 |
| 2024/5 | H | Part Time | £5918.00 |
| 2025/6 | H | Full Time | £12203.00 |
| 2025/6 | Overseas | Full Time | £18054.00 |
| 2025/6 | H | Part Time | £6102.00 |
| 2026/7 | H | Full Time | £ |
| 2026/7 | Overseas | Full Time | £19859.00 |
| 2026/7 | H | Part Time | £ |

## PSRB:

None

## Course Structure:

# January (Full-time)

Full time Masters students normally study 180 credits for their award.

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

| Module | Title | Credits | Period | Type | |
|---|---|---|---|---|---|
| 7BM028 | Principles of Integrated Biomedical Science | 30 | SEM2 | Core | |

**Option Group 03 | Min Value: 30 | Max Value: 30**

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|---|---|---|---|---|---|
| 7BM025 | Blood Sciences | 30 | SEM2 | Core/Option | Elizabeth O'Gara |
| 7BM026 | Genomics and Cellular Pathology | 30 | SEM2 | Core/Option | Elizabeth O'Gara |
| 7BM027 | Infection and Immunity | 30 | SEM2 | Core/Option | Elizabeth O'Gara |

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|---|---|---|---|---|
| 7BM024 | Molecular Skills in Biomedical Science | 30 | SEM3 | Core |
| 7BM029 | Research methods and professional skills | 30 | SEM3 | Core |
| 7BM030 | Research Project | 60 | CRYRA | Core |

# September (Full-time)

Full time Masters students normally study 180 credits for their award.

Part time students study alongside full time students. However, they do not study more than 80 credits in each academic calendar year.

| Module | Title | Credits | Period | Type |
|---|---|---|---|---|
| 7BM029 | Research methods and professional skills | 30 | SEM1 | Core |
| 7BM024 | Molecular Skills in Biomedical Science | 30 | SEM1 | Core |
| 7BM028 | Principles of Integrated Biomedical Science | 30 | SEM2 | Core |
| 7BM030 | Research Project | 60 | CRYRA | Core |

**Option Group 05 | Min Value: 30 | Max Value: 30**

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|---|---|---|---|---|---|
| 7BM025 | Blood Sciences | 30 | SEM2 | Core/Option | Elizabeth O'Gara |
| 7BM026 | Genomics and Cellular Pathology | 30 | SEM2 | Core/Option | Elizabeth O'Gara |
| 7BM027 | Infection and Immunity | 30 | SEM2 | Core/Option | Elizabeth O'Gara |

Please note: Optional modules might not run every year, the course team will decide on an annual basis which options will be running, based on student demand and academic factors, to create the best learning experience.

# Learning, Teaching and Assessment

Regulations Exemption:

None.

## Reference Points:

UK Quality Code for Higher Education

Qualifications and Credit Frameworks

Subject Benchmark Statements

University Policies and Regulations

Equality Act 2010: guidance - GOV.UK

## Overview of Assessment:

As part of the course approval process, the course learning outcomes were mapped to each of the modules forming the diet of the programme of study. This process confirmed that all course learning outcomes can be met through successful completion of the modules. This mapping applies to the final award as well as to all of the intermediate awards.

| Learning Outcomes | Modules |
|---|---|
| **PGCERT01** Demonstrate critical evaluation of current theories, concepts and insights informed by, the forefront of your academic discipline, field of study or area of professional practice. Show how you have applied this knowledge in original and insightful ways (Knowing). | |
| **PGCERT02** Demonstrate in-depth knowledge and practical and/or professional skills in your discipline (Knowing). | |
| **PGCERT03** Make informed decisions on complex issues, and communicate your conclusions clearly to different audiences employing discipline conventions and expectations (Doing). | |
| **PGCERT04** Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level (Doing). | |
| **PGCERT05** Critically analyse, identify and utilise various study methods to improve your own performance (Being). | |
| **PGCERT06** Reflect on your own achievements, identify future goals and plan for a further career or study (Being). | |
| **PGDIP01** Demonstrate critical evaluation of current theories, concepts and insights informed by, the forefront of your academic discipline, field of study or area of professional practice. Show how you have applied this knowledge in original and insightful ways (Knowing). | |
| **PGDIP02** Demonstrate in-depth knowledge and practical and/or professional skills in your discipline (Knowing). | |
| **PGDIP03** Make informed decisions on complex issues, and communicate your conclusions clearly to different audiences employing discipline conventions and expectations (Doing). | |
| **PGDIP04** Demonstrate self-direction and originality in tackling and solving problems, acting independently and autonomously in planning and implementing tasks at a professional or equivalent level (Doing). | |

| Learning Outcomes | Modules |
|---|---|
| **PGDIP05** Critically analyse, identify and utilise various study methods to improve your own performance (Being). | |
| **PGDIP06** Reflect on your own achievements and plan for a future career or further study (Being). | |
| **MA01** Critically evaluate current and emerging research to demonstrate a systematic understanding of biomedical science concepts, theories, and methodologies and their application to real world challenges in health and disease (Knowing). | |
| **MA02** Demonstrate critical reasoning and evidence-based judgement in the analysis of complex scientific literature and data, including knowledge of how to assess the reliability, validity, and implications of findings within advanced biomedical science contexts (Knowing). | |
| **MA03** Design, plan, and conduct an independent, ethically sound research project, demonstrating advanced experimental, analytical, and problem-solving skills, while evaluating safety, sustainability, and cost considerations (Doing). | |
| **MA04** Communicate complex scientific information effectively and appropriately, using diverse media to engage a range of audiences, while demonstrating professionalism, clarity, and integrity (Doing). | |
| **MA05** Embody the values of a reflective and professional scientist, showing awareness of ethical, legal, societal, and sustainability considerations, and commitment to responsible and inclusive practice in biomedical science (Being). | |
| **MA06** Demonstrate commitment to continual professional and personal development, embracing sustainability and innovation as core principles of practice (Being). | |

## Teaching, Learning & Assessment Strategy/(Learning and Teaching):

Teaching and learning activities on this MSc programme are delivered through a blend of face-to-face and digital formats, designed to develop your advanced knowledge, critical thinking, practical skills, professional skills and reflective practice. Alongside on-campus lectures, seminars, workshops and laboratory sessions that provide hands-on experience and peer interaction, online learning via Canvas offers access to resources, activities, discussion boards and academic support.

Lectures provide an advanced, research- and practice-based understanding of key areas of Biomedical Science. You will explore the pathophysiological basis of disease, the clinical application of investigative techniques, and current diagnostic and therapeutic approaches. Lectures also introduce important professional concepts, including quality assurance, clinical governance, and the strengths and limitations of different biomedical techniques.

Tutorials and workshops build on lecture content by applying theory to research-based and case-based scenarios developing practical and transferable skills, including information literacy, data handling, experimental design, statistical analysis, and interpretation of results. These sessions help you relate scientific concepts to real clinical situations, develop problem-solving skills, and understand how laboratory results inform diagnosis and disease management within professional and ethical frameworks and support your competence in designing and conducting research.

Seminars and group activities provide opportunities to exchange ideas with peers and tutors, discuss current research, and develop critical thinking. Seminars also support awareness of leadership, teamwork, and the management of processes within multidisciplinary clinical and research

environments.

A substantial independent research project allows you to design and carry out an original investigation within your chosen area of biomedical science. You will develop skills in hypothesis testing, data collection and analysis, critical evaluation of results, and presentation of research findings, while considering methodological limitations and governance requirements.

Problem-based learning, delivered through tutor-led small group discussions, encourages independent study and collaborative learning. You will identify learning objectives, apply appropriate biomedical knowledge and techniques to realistic problems, and share findings with peers.

You will apply your academic knowledge in practical settings and evaluate your experiences through reflective practice. Digital fluency is a key part of the course. You will learn to navigate online platforms, handle data ethically, and use digital tools for presentations and research. You will also explore responsible use of AI and data privacy, preparing you to be a thoughtful and capable professional in a tech-driven world.

## Assessment Methods/Assessments:

At the University of Wolverhampton, a variety of modes of assessment will be used to support and test your learning and progress and help you develop capabilities that are valued beyond your university studies and into your working life. Assessment is designed to be authentic and reflective of real scientific practice. These assessments will help you develop communication skills, demonstrate professional judgement, and prepare for leadership and scientific roles in research or clinical laboratories.

You will experience a wide range of assessment types, including written exams, coursework, presentations, and project, which means you’re not relying on just one format to demonstrate your abilities. This variety helps spread your workload across the semester and gives you the chance to develop skills in academic writing, lab work, and digital literacy.

You will complete tasks like quizzes, reports, portfolios, and presentations, some short-term, others more in-depth, so you can manage your time effectively and build confidence as you go. Early in each module, you will have access to formative assessments such as draft submissions, peer-reviewed presentations, and quizzes. These are designed to help you understand expectations, refine your work, and receive feedback before final grades are awarded. Tutorials and seminars also offer space to discuss ideas and get guidance on your progress.

You will write reports that require structured arguments and critical thinking, tackle case studies and project work that apply your scientific knowledge to real-world problems, and complete lab-based tasks that test your ability to interpret results and use evidence effectively. An extended research project or dissertation gives you the chance to explore a topic in depth and demonstrate independent inquiry.

Inclusivity is built into the assessment process. You will encounter a mix of written, oral, practical, and digital formats, with clear marking criteria and guidance available on Canvas and in class. Support is always available through one-to-one tutorials, academic skills workshops, and assistive technologies.

You will have opportunities to personalise your assessments by choosing topics that reflect your interests or career goals. Tasks like poster presentations and project proposals mirror professional formats, while practice-based research prepare you for the expectations of the biomedical science workplace. These experiences help you connect your academic work to your future career and build the confidence to succeed beyond university.

## Further Information for Student:

The course is designed to help you settle into university study and feel confident from the start, especially if you are returning to education or coming from a different academic background. Early in each module, you will be guided through what is expected, how assessments work, and how to succeed at postgraduate level. You will have easy access to academic support throughout the course. You can book one-to-one meetings with tutors for help with assessments, feedback, or general study support, helping you progress with confidence throughout the course.

You will have access to all your course materials through Canvas, the University's online learning platform. This includes lecture and tutorial slides, case studies, reading lists, assessment briefs, marking criteria, and past exam or practice questions. Having everything in one place helps you plan your study and understand what you are working towards. Where appropriate, lectures are recorded, so you can revisit content to support revision or reinforce your understanding.

Each module includes module unpacking and assessment preparation sessions, where tutors explain learning outcomes, assessment tasks, and marking expectations in clear terms. These sessions are especially helpful early on, as they show you how to approach postgraduate-level work with confidence. Assessment is designed to help you develop your skills as well as demonstrate your knowledge. Tutors will run sessions to explain assessment briefs clearly and formative practice assignments provide a great opportunity for feedback opportunities to learn from mistakes and build confidence before major submissions. Feedback is constructive and timely, helping you identify areas for improvement.

Learning activities across the course are interactive and engaging, using case studies, discussions, and group activities to support understanding and peer learning. Your voice is valued: the University actively gathers student feedback through surveys and course representatives, and changes are made in response to student input to ensuring your learning experience continues to evolve in response to your needs.

Through problem-based learning and group discussions, you will build confidence in independent study, critical thinking, and academic writing. Practical classes are embedded in all modules, and the Research & Professional Skills and Molecular Skills in Biomedical Science modules will prepare you for your research project by providing practical skills, workshops on study design, data handling, and statistics ensuring you are well equipped to undertake independent research.

The University provides a wide range of academic and pastoral support to help students succeed in their studies and personal development. This includes access to the Library and Skills for Learning service, and tailored advice from the Careers and Enterprise teams. Students also benefit from 24/7 wellbeing support through WLV Student Life Connect, pastoral care via the Multi-faith Chaplaincy, and assistance from the Mental Health and Wellbeing team. Those living in university accommodation have additional access to Residential Life support, and all students can engage with the Students' Union for advocacy, societies, and further peer-led services.

## Currency:

The Biomedical Science course at the University of Wolverhampton is built to be flexible, responsive, and closely aligned with the latest developments in science and healthcare science. You will be taught by research-active staff and health-care professionals who continuously update lectures and learning materials to reflect new discoveries, emerging theories, and current global health challenges. Seminars and tutorials include recent publications and clinical developments, while Canvas-based resources allow new content like journal articles, videos, and discussion prompts, to be added quickly and easily. This ensures your learning stays current and relevant throughout your degree.

You will also engage with research from the start. Lecturers bring their own expertise into teaching, giving you an insight into how real-world issues are developed, investigated and translated into practice. Through laboratory sessions, literature appraisal, seminars, and your independent research project, you will develop strong inquiry, critical thinking, and data interpretation skills. You may also explore research topics aligned with staff research areas or contribute to staff-led external projects where appropriate. The course prepares you to think creatively and critically about real-world challenges with reflective practice, problem-based learning and case studies encouraging you to evaluate complex clinical and scientific problems, while project work and enterprise-focused tasks, such as research proposals and poster presentations, support innovation, professional judgement, and solution-focused thinking.

Graduate attributes are embedded across the course. You will develop as a global citizen by engaging with international research and ethical debates and develop deep subject knowledge through a curriculum grounded in theory and practical skills. You will grow as a professional through teamwork, presentations, reflective practice, and authentic assessments aligned with employer and professional

standards, while digital fluency is developed through specialist data analysis software data analysis software and the exploration of responsible AI use and data privacy.

The course encourages interdisciplinary and lifelong learning. You will explore links between biomedical science, clinical practice, and public health, and use digital tools to support independent study. Reflective tasks and portfolio-building help you track your progress and plan future development, preparing you to adapt confidently and thrive in a fast-changing professional landscape.

## Personalisation Opportunities:

You will have opportunities to shape your learning around your own interests and goals, many modules are designed to be flexible, giving you choices in how you engage with the content. For example, selecting a case study to analyse or explore a specific disease pathway. You will take part in interactive sessions and make use of digital resources on Canvas, allowing you to learn at your own pace and revisit materials whenever needed.
The course offers a range of optional modules, allowing you to shape your studies around the areas that interest you most and support your future career goals.  Modules may include topics such as blood sciences, immunity and infection, and cellular pathology and genetics, giving you the flexibility to explore subjects that align with your interests and ambitions.

You will also complete a Research Project, where you can choose a topic that genuinely interests you and supports your career aspirations. Project topics may be drawn from areas such as haematology, biochemistry, genetics, microbiology, immunology, or other related fields. This project gives you the opportunity to explore a subject in depth, develop advanced research skills, and work closely with academic staff who will provide expert guidance and support throughout.

Throughout the course, academic tutors and student success coaches will support you in making informed choices about optional modules and future career pathways. You will receive advice on how different modules link to careers in the NHS, research, the pharmaceutical industry, or further study, including medicine or postgraduate qualifications. Careers support is built into the course, and you will also have access to the University’s Careers and Workplace team for one-to-one support with CV writing, application forms, interview preparation, volunteering opportunities, and job searching.

Inclusivity is a core part of the learning experience. The course includes diverse case studies and global health perspectives, helping you understand how diseases affect different populations and how cultural, social, and economic factors influence healthcare delivery. University-wide initiatives such as Inclusivity Matters and the Race Equality Charter help ensure that teaching reflects the lived experiences of all students.
You will be encouraged to reflect on your progress throughout the course. Feedback, tutorials, and your final-year project will support this process, helping you identify your strengths and areas for development. Overall, this is a course that grows with you—helping you build confidence, explore your interests, and prepare for a future in science, healthcare, or related fields.

## Employability in the Curriculum/Employability and Professional Development:

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