

## Course Specification

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<b>Status:</b>	Validated

## Core Information

<b>Awarding Body / Institution:</b>	University of Wolverhampton		
<b>School / Institute:</b>	Wolverhampton School of Sciences		
<b>Course Code(s):</b>	BM008P01UV BM008P31UV	Full-time Part-time	12 Months 2 Years
<b>UCAS Code:</b>			
<b>Course Title:</b>	MSc Biomedical Science		
<b>Hierarchy of Awards:</b>	Master of Science Biomedical Science Postgraduate Diploma Biomedical Science Postgraduate Certificate Biomedical Science University Statement of Credit University Statement of Credit		
<b>Language of Study:</b>	English		
<b>Date of DAG approval:</b>	21/Jun/2017		
<b>Last Review:</b>	2020/1		
<b>Course Specification valid from:</b>	2011/2		
<b>Course Specification valid to:</b>	2026/7		

## Academic Staff

<b>Course Leader:</b>	Mr Paul Haydn Roberts
<b>Head of Department:</b>	Dr Graham Paul Basten

# Course Information

Location of Delivery:	University of Wolverhampton
Category of Partnership:	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)

Successful applicants will normally required to have an 2ii (or better) honours degree in Biomedical Science or in a subject with a high proportion of Biomedical Content (ie 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 the provision of training in Biomedical Science at all levels and has offered the MSc in Biomedical Science both part-time and full-time for over a quarter of a century. The course is accredited by the Institute of Biomedical Science and is taught by both research-active staff and lecturer-practitioners with significant experience in NHS pathology laboratories. This ensures that teaching on the course is highly research-informed, while at the same time maintains an up-to-date clinical perspective. Clinical aspects of the course are further emphasised in small group problem-based learning sessions, where clinical cases are explored through tutor-led discussions. Our recent campus redevelopment included a new, state-of-the-art research building in which students undertake their research projects.

## Educational Aims of the Course:

The MSc in Biomedical Science aims to provide you with:

- A thorough understanding of the fundamental biological science concepts that underpin health and disease, and how these concepts are investigated in the laboratory to inform the diagnosis and treatment of patients.
- A choice of specialist option modules including immunology, biochemistry, haematology, microbiology and cellular pathology, to provide advanced knowledge of core pathology disciplines.
- The skills and experience necessary to undertake an independent research project in an area relevant to biomedical research or practice, and to report your findings in a scientific style.
- The skills necessary to critically evaluate recent advances in biomedical research and practice through independent study of relevant research literature.

The opportunity to develop initiative and problem-solving ability in biomedical science via problem-based exploration of clinical case studies.

## Intakes:

September  
January

Major Source of Funding:

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Tuition Fees:

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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
2021/2	H	Full Time	£
2021/2	EU	Full Time	£
2021/2	Overseas	Full Time	£
2022/3	H	Full Time	£11000.00
2022/3	Overseas	Full Time	£14950.00
2022/3	H	Part Time	£5500.00

PSRB:

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BM008P01UV (Full-time)

Professional Accreditation Body:  
Institute of Biomedical Science (IBMS)

Accrediting Body:  
Institute of Biomedical Science (IBMS)

Accreditation Statement:  
Accredited by the Institute of Biomedical Science (IBMS).

Approved	Start	Expected End	Renewal
01/Jul/2011	01/Sep/2020	02/Sep/2024	02/Sep/2024

BM008P31UV (Part-time)

Professional Accreditation Body:  
Institute of Biomedical Science (IBMS)

Accrediting Body:  
Institute of Biomedical Science (IBMS)

Accreditation Statement:  
Accredited by the Institute of Biomedical Science (IBMS).

Approved	Start	Expected End	Renewal
01/Jul/2011	01/Sep/2020	02/Sep/2024	02/Sep/2024

Course Structure:

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January (Full-time)

Note that both full-time and part-time students should take the Research Methods module prior to the Project.

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
7BM020	Research Methods in Biomedical Science	20	SEM2	Core
7BM014	MSc Research project	60	CRYRA	Core

Group 92 | Min Value: 20 | Max Value: 20

7BM016	Clinical Microbiology	20	SEM2	
7BM019	Advanced Haematology	20	SEM2	
7BM022	Diagnostic Cellular Pathology	20	SEM2	

7BM013	Current Topics in Biomedical Science	20	SEM2	Core
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## January (Full-time)

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
7BM012	Principles of Integrated Biomedical Science	20	SEM1	Core
7BC002	Molecular Genetics and Genomics	20	SEM1	Core

Group 91 | Min Value: 20 | Max Value: 20

7BM021	Clinical Biochemistry	20	SEM1	
7BM015	Clinical Immunology	20	SEM1	

## September (Full-time)

Note that both full-time and part-time students should take the Research Methods module prior to the Project.

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
7BM012	Principles of Integrated Biomedical Science	20	SEM1	Core
7BC002	Molecular Genetics and Genomics	20	SEM1	Core
7BM020	Research Methods in Biomedical Science	20	SEM2	Core
7BM014	MSc Research project	60	CRYRA	Core

**Group 92 | Min Value: 20 | Max Value: 20**

7BM016	Clinical Microbiology	20	SEM2	
7BM019	Advanced Haematology	20	SEM2	
7BM022	Diagnostic Cellular Pathology	20	SEM2	

**Group 91 | Min Value: 20 | Max Value: 20**

7BM021	Clinical Biochemistry	20	SEM1	
7BM015	Clinical Immunology	20	SEM1	

7BM013	Current Topics in Biomedical Science	20	SEM2	Core
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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

Academic Regulations Exemption:

None

Reference Points:

QAA subject benchmark statement Biomedical Sciences (2019):

[https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-biomedical-sciences.pdf?sfvrsn=2bf2c881\\_4](https://www.qaa.ac.uk/docs/qaa/subject-benchmark-statements/subject-benchmark-statement-biomedical-sciences.pdf?sfvrsn=2bf2c881_4)

The Frameworks for Higher Education Qualifications of UK Degree-Awarding Bodies (2014): 4.17 – Descriptor for a higher education qualification at level 7 on the FHEQ and SCQF level 11 on the FQHEIS: master's degree:

<https://www.qaa.ac.uk/en/quality-code/qualifications-and-credit-frameworks>

Criteria and Requirements for the Accreditation and Reaccreditation of MSc degrees in Biomedical Science (2016):

<https://www.ibms.org/resources/documents/criteria-and-requirements-for-the-accreditation-and/>

Overview of Assessment:

Learning Outcomes	Modules
<p><b>MA01</b> Demonstrate a systematic and thorough understanding of fundamental science concepts and their clinical application as the foundation of the academic and practice disciplines of Biomedical Science.</p>	<p>7BM012 Principles of Integrated Biomedical Science  7BM014 MSc Research project  7BM020 Research Methods in Biomedical Science  7BM012 Principles of Integrated Biomedical Science  7BM015 Clinical Immunology  7BM016 Clinical Microbiology  7BM019 Advanced Haematology  7BM020 Research Methods in Biomedical Science  7BM021 Clinical Biochemistry  7BM022 Diagnostic Cellular Pathology  7BM012 Principles of Integrated Biomedical Science  7BM020 Research Methods in Biomedical Science</p>
<p><b>MA02</b> Demonstrate a comprehensive understanding of the practical, professional and research skills necessary for creating and interpreting knowledge in a Biomedical Laboratory, including reflective practice, quality management and statistical analysis.</p>	<p>7BC002 Molecular Genetics and Genomics  7BM013 Current Topics in Biomedical Science  7BM014 MSc Research project  7BM015 Clinical Immunology  7BM016 Clinical Microbiology  7BM019 Advanced Haematology  7BM020 Research Methods in Biomedical Science  7BM021 Clinical Biochemistry  7BM022 Diagnostic Cellular Pathology  7BC002 Molecular Genetics and Genomics  7BM013 Current Topics in Biomedical Science  7BM015 Clinical Immunology  7BM016 Clinical Microbiology  7BM019 Advanced Haematology  7BM020 Research Methods in Biomedical Science  7BM021 Clinical Biochemistry  7BM022 Diagnostic Cellular Pathology  7BC002 Molecular Genetics and Genomics  7BM013 Current Topics in Biomedical Science  7BM015 Clinical Immunology  7BM016 Clinical Microbiology  7BM019 Advanced Haematology  7BM020 Research Methods in Biomedical Science  7BM021 Clinical Biochemistry  7BM022 Diagnostic Cellular Pathology</p>
<p><b>MA03</b> Assimilate and critically evaluate evidence from current research, exploring the relationship between current concepts, novel hypotheses and evidence to create new insights or change practice at the forefront of Biomedical Science.</p>	<p>7BC002 Molecular Genetics and Genomics  7BM012 Principles of Integrated Biomedical Science  7BM014 MSc Research project  7BM015 Clinical Immunology  7BM020 Research Methods in Biomedical Science  7BM021 Clinical Biochemistry  7BM022 Diagnostic Cellular Pathology  7BC002 Molecular Genetics and Genomics  7BM012 Principles of Integrated Biomedical Science  7BM015 Clinical Immunology  7BM020 Research Methods in Biomedical Science  7BM021 Clinical Biochemistry  7BM022 Diagnostic Cellular Pathology  7BC002 Molecular Genetics and Genomics  7BM012 Principles of Integrated Biomedical Science  7BM015 Clinical Immunology</p>

## Learning Outcomes

7BM020 Research Methods in Biomedical Science  
7BM021 Clinical Biochemistry  
7BM022 Diagnostic Cellular Pathology

**PGCERT01** Demonstrate an understanding of fundamental science concepts and their clinical application as the foundation of the academic and practice key disciplines of Biomedical Science.

**PGCERT02** Demonstrate an understanding of the practical, professional and research skills necessary for creating and interpreting knowledge in a Biomedical Laboratory.

**PGCERT03** Evaluate evidence from current research, exploring the relationship between current concepts at the forefront of Biomedical Science.

**PGCERT04** Demonstrate an ability to deal with complex issues, tackle and solve problems and communicate your conclusions clearly to specialist and non-specialist audiences

**PGCERT05** "Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level."

**PGCERT06** Demonstrate the qualities and transferable skills necessary for employment requiring: 1. the exercise of initiative and personal responsibility 2. decision-making in complex and unpredictable situations 3. the independent learning ability required for continuing professional development.

**PGDIP01** Demonstrate a systematic understanding of fundamental science concepts and their clinical application as the foundation of the academic and practice disciplines of Biomedical Science.

**PGDIP02** Demonstrate a comprehensive understanding of the practical, professional and research skills necessary for creating and interpreting knowledge in a Biomedical Laboratory.

**PGDIP03** Assimilate and critically evaluate evidence from current research, exploring the relationship between current concepts, and novel hypotheses and evidence to create new insights at the forefront of Biomedical Science.

**PGDIP05** "Demonstrate self-direction and originality in tackling and solving problems, and act autonomously in planning and implementing tasks at a professional or equivalent level."

**PGDIP06** Demonstrate the qualities and transferable skills necessary for employment requiring: 1. the exercise of initiative and personal responsibility 2. decision-making in complex and unpredictable situations 3. the independent learning ability required for continuing professional development.

## Teaching, Learning and Assessment:

- Lectures to provide research and practice-based comprehension of the major areas of Biomedical Science to an advanced level.
- Tutorials to focus understanding gained in lectures on research or case-based issues and to underpin this

understanding by making it relevant to clinical situations.

- Seminars to allow exchange of ideas and knowledge with peers and with tutors.
- Workshops to develop practical skills such as information and data-handling.
- Research project to enhance practical research skills, problem-solving abilities and competencies to analyse, evaluate and present research.
- Problem-based learning in tutor-led small group discussions to set learning objectives for independent study and share findings with peers.
- Authentic assessment methods provide students with tasks and experiences they would be expected to encounter as a scientist in a research or clinical laboratory. These include writing in the style of a journal article, reflective writing, group and individual presentations, production of posters, grant proposals and assessed discussions of clinical laboratory results.

## Assessment Methods:

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At the University of Wolverhampton, a variety of modes of assessment will be used to support and test your learning and progress and to help you develop capabilities that are valued beyond your University studies and into your working life. Your course may include a variety of assessment activities:

Written examinations (including online examinations, open and closed book examinations and quizzes)

Coursework (for example, essays, reports, portfolios, project proposals and briefs, CVs, poster presentation)

Practical (for example, oral and video presentations, laboratory work, performances, practical skills assessment)

In the final year of your undergraduate degree, and at the end of your postgraduate degree, you are likely to be expected to write an extended piece of work or research, such as a dissertation or a practice-based piece of research.

## Student Support:

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General University support:

[University Learning Centres](#) are the key source of academic information for students. Learning Centres provide physical library resources (books, journal, DVDs etc.) and offer a range of study areas to allow students to study in the environment that suit them best: Social areas, quiet and silent areas. Learning Centres also provide access to wide range of online information sources, including eBooks, e-Journals and subject databases.

Learning Centres also provide students with academic skills support via the [Skills for Learning programme](#). Students on campus can attend workshops or ask for one-to-one help on a range of skills such as academic writing and referencing. Students can access a range of online skills material at: [www.wlv.ac.uk/lib/skills](http://www.wlv.ac.uk/lib/skills)

The [University Student Support website](#) offers advice on a variety of matters (careers, counselling, student union advice, etc.) Students can also access these services by booking appointment with the SU, careers, counselling services, etc.

## Course Specific Support

- Course materials are made available via the University's virtual learning environment (Canvas). Where appropriate these include lecture and tutorial materials, case studies, reading lists, assessment briefs and marking schemes, and past exam/practise questions.
- Where appropriate, lecture capture technology is utilised to provide recordings of lectures that students can revisit for revision purposes.
- Module unpacking and exam preparation sessions are standard for all modules to help students understand and prepare for their assessments.
- All assessed work is accompanied by feedback designed to help students understand their grade and how they can improve.
- Exam feedback sessions are held for all relevant modules so that students can receive one-to-one feedback and reflect on their performance.



- Problem-based learning and literature review modules are designed to develop skills in independent study.
- Research methods is a module that focuses entirely on developing the necessary skills to undertake a research project, including workshops on statistical analysis.
- The SAMS appointment system guarantees students one-to-one appointments with their tutors.

### Employability in the Curriculum:

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The MSc in Biomedical Science is accredited by the Institute of Biomedical Science (IBMS). It is therefore particularly suitable for existing practitioners seeking to advance to senior Biomedical Scientist (band 7) posts. Through modules focused on research methods and the undertaking of an independent research project, the MSc provides suitable preparation for further research/professional study at Doctoral level leading to a PhD or Professional doctorate (DBMS), or for careers in industry. Students can also select from a number of advanced discipline-specific option modules to tailor their MSc to their career interests/goals.

Authentic learning and assessment methods are deployed throughout the course to ensure that students can evidence to employers that they have relevant skills and experience for careers in the life and health sciences. These include writing in the style of a journal article, reflective writing, group and individual presentations, production of posters, grant proposals, assessed discussions of clinical laboratory results, and statistical analysis



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