

Programme Specification for BSc (Hons) Medical Sciences

This document applies to Academic Year 2023/24 onwards

1.	Awarding institution/body	University of Worcester
2.	Teaching institution	University of Worcester
3.	Programme accredited by	N/A
4.	Final award or awards	BSc (Hons)
5.	Programme title	Medical Sciences
6.	Pathways available	Single
7.	Mode and/or site of delivery	Standard taught programme at University of Worcester
8.	Mode of attendance and duration	Full time 3 years Full time 4 years with Foundation Year
9.	UCAS Codes	B190 three-year degree programme B191 four-year degree programme
10.	Subject Benchmark statement and/or professional body statement	QAA (2023) subject benchmark statement
11.	Date of Programme Specification preparation/ revision	Approved June 2021 August 2021 – AQU amendments and code changes July 2022 – updates to module codes and titles BIOS1400 Professional and Technical Development in Biomedical Science updated to BIOL1010 Professional Development in Biomedical Science. BIOS2400 new code updated to BIOL2015. BIOS2401 new code updated to BIOL2016. BIOS3404 new code updated to BIOL3025 August 2022 – AQU amendments August 2023 – annual updates and QAA update

12. Educational aims of the programme

The Honours degree programme in Medical Sciences aims to enable students from a wide range of backgrounds to develop the knowledge, practical and intellectual skills necessary for a variety of careers; supporting them to progress on to graduate entry Medicine where applicable (See section 20 of this Programme Specification for more information). The course will also enable the development of skills required to support professionalism, independent thought, personal responsibility and decision making during a period of rapid change and increasing accountability.

Opportunities in medical sciences are wide ranging and new avenues to pursue are constantly emerging as we learn more about disease processes, diagnosis, treatment and cure. Many students will welcome the opportunity to prepare themselves effectively for graduate entry Medicine, but a range of alternative career pathways, both within the NHS and in industry, are also available for those who decide to choose a different path.

The Educational Aims of the programme are:

1. To enable students to understand the biology of human health and disease and to equip them with practical and laboratory skills in order to carry out investigations relevant to a range of roles within the medical sciences.
2. To make students aware of relevant healthcare industry structures, standards and good practice, and to develop an awareness of, responsibility for, and a positive attitude towards areas such as ethics and health and safety at work.

3. To enable the development of professionalism in students' own practice: team working and leadership skills, and essential skills of time management and task prioritisation.
4. To support students in the development of intellectual skills of critical evaluation, scientific analysis and synthesis of ideas, in order for them to be able to optimise their skills of thinking and reflection, especially in a medical sciences context.
5. To foster a spirit of enquiry, scepticism and scientific discipline to enable students to design and undertake an independent research project.
6. To develop a range of skills to enable students to communicate their ideas effectively and appropriately via a variety of media.
7. To develop personal and interpersonal skills, self-awareness, personal responsibility and reflection on the ethical, social and health-related implications of professional decisions.
8. To develop highly motivated employable students with the intellectual and practical skills and resilience necessary to succeed in a changing and challenging environment.
9. To provide the knowledge, skills and aspiration necessary for students to progress on to graduate entry Medicine, postgraduate study or directly into employment in their chosen career.

13. Intended learning outcomes and learning, teaching and assessment methods

Knowledge and Understanding

LO no.		Module Code/s
	On successful completion of the named award, students will be able to:	
1.	Demonstrate a detailed knowledge and understanding of the biology of human health, disease and disease processes.	BIOL 3016 BIOL 3025
2.	Discuss and interpret the science of the causes, progression, investigation and diagnosis of disease to facilitate management and treatment.	BIOL 3016
3.	Explain the science and mechanisms underpinning a range of medical imaging techniques, how ionising radiation interacts with matter, how it affects living organisms, and how it is used as a therapeutic intervention.	BIOS 2600
4.	Demonstrate, an in-depth understanding of the relationship between public health, internal medicine and epidemiology.	BIOL 3021 BIOL 3021

Cognitive and Intellectual skills
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5.	Use skills of reflection, evaluation and critical thinking in problem solving and decision making to support the effective management of practical skills.	BIOL 3002, BIOL 3016
6.	Analyse and critically evaluate research evidence, information and data from a variety of sources in the context of current theory and practice and use it to develop a research proposal.	BIOL 2015 BIOL 3002
7.	Apply knowledge and understanding of human health and disease to solve problems and make reasonable predictions.	BIOL 3021 BIOL 3025
8.	Critically analyse data and apply statistical techniques to interpret findings from primary and secondary research.	BIOL 3021 BIOS 3600
9.	Analyse and reflect on own learning and practice to develop personally and professionally.	BIOL 2002 BIOL 2016

Skills and capabilities related to employability

10.	Design and conduct an independent research project with minimum supervision.	BIOL2015 BIOL 3002
11.	Reflect on and evaluate potential career pathways, manage change effectively and begin to plan a career direction.	BIOL 1010
12.	Exercise professionalism and demonstrate personal responsibility for good working practices and ethical decision-making as needed for employment in a range of careers in the medical sciences.	BIOL 2016 BIOL 3002
13.	Explain the structure and regulation of health and social care services and the management of local healthcare systems across the United Kingdom.	BIOS 3601 BIOL 3021

Transferable/key skills

14.	Demonstrate competence in a range of information management skills; for example, in written and verbal communication, the use of information technology in the workplace, managing library resources.	BIOL 3002 BIOS 3600
15.	Work effectively with a wide range of individuals and groups and as part of a team, establishing professional and ethical relationships using a variety of means.	BIOL 2016 BIOL 3016
16.	Demonstrate independent problem-solving skills in a variety of theoretical and practical situations, the ability to work on one's own initiative, and manage their own time to meet deadlines.	BIOL 3002 BIOL 3021
17.	Reflect on, analyse and evaluate their own academic, vocational and professional performance, taking responsibility for personal independent working and professional learning and development.	BIOS 3601 BIOL 3002

Learning, teaching and assessment

The BSc (Hons) in Medical Sciences aims to provide a supportive, student-centred learning environment that acknowledges and responds to the diversity of student backgrounds and experiences. The structure of the course enables students to move towards increasing independence in their studies from Level 4 to Level 6, in line with the Framework for Higher Education Qualifications (FHEQ) and University's policies for assessment and curriculum design.

In order to support the transition from Level 3 study, and to reflect the University's commitment to widening participation, Level 4 modules provide extensive and structured tutor support for student learning. At Level 5 this support becomes less structured as students become more independent in their learning, although the extent to which this occurs varies with the difficulty of the activities undertaken. At Level 6, modules offer students opportunities and encouragement for more independent learning, although specific tutor help will always be available. Module learning outcomes, and hence assessments will always be more demanding at Level 6.

Students will participate in a wide range of learning experiences. Teaching, assessment and independent study are interlinked in that they are all aspects of each student's personal and academic development.

Practical skills for employment are also addressed through the Biosciences Skills Passport, where students on all levels of the course will have their proficiency in the practical skills they gain recorded.

Teaching

Students are taught through a combination of activities including: face-to-face and online lectures and seminars (tutor and student-led), practical laboratory investigations, workshops, tutorials, visits, directed reading, self-directed study, group work and team projects, reflective practice, class discussions, simulations, case studies, independent research, talks from visiting specialists, interactive workshops, etc. Interactive workshops take a variety of formats and are intended to enable the application of learning through discussion and small group activities. Seminars enable the discussion and development of understanding of topics covered in lectures, and laboratory practical sessions are focused on developing confidence in the laboratory, specific skills and the ability to relate theory to practice. In order to maximise flexibility for the wide range of students typically studying at the University of Worcester, some teaching will be delivered as blended learning via platforms such as the Blackboard VLE.

When embarking of their course, students are allocated a Personal Academic Tutor. There is a structured Personal Academic Tutoring programme and tutorials are scheduled on at least four occasions at Level 4 and three occasions at each of Levels 5 and 6.

The University places emphasis on enabling students to develop the independent learning capabilities that will equip them for lifelong learning and success in future employment, as well as academic achievement. A mixture of independent study, teaching and academic support from Student Services and Library Services, as well as the Personal Academic Tutoring system enables students to reflect on progress and build up a profile of skills, achievements and experiences that will help them to flourish, and to set and achieve their goals.

Contact time

In a typical week, students will have around 16 contact hours of teaching. In the final year there is normally slightly less contact time to enable students to undertake more independent study e.g. via their research project, and the precise contact hours will depend on the optional modules selected.

Typically, weekly contact time will be structured around:

- 8 hours of lectures
- 7 hours of supervised laboratory practicals
- 1 hour of workshops
- 1 hour of Study Skills (Level 4 only)

Independent self-study

In addition to the contact time, students are expected to undertake around 21 hours of personal self-directed study per week. Typically, this will involve:

- Directed and self-directed reading
- Working through problems in appropriate texts
- Preparation of assessments
- Working with colleagues on team tasks and projects

Independent learning is supported by a range of excellent learning facilities, including the Hive and library resources, the virtual learning environment, and extensive electronic learning resources.

Teaching staff

Students will be taught by a teaching team whose expertise and knowledge are closely matched to the content of the modules on the course. The team includes lecturers, senior and principal lecturers, associate lecturers, visiting professionals, laboratory technicians.

Teaching is informed by research and consultancy, and 82% of lecturers on the course have a higher education teaching qualification or are Fellows of the Higher Education Academy. University of Worcester students are taught by academics whose research is nationally and internationally recognised.

Assessment

The course provides opportunities to test understanding and learning informally through the completion of practice or 'formative' assignments. Each module has one or more formal or 'summative' assessment which is graded and counts towards the overall module grade.

The precise assessment requirements for an individual student in an academic year will vary according to the mandatory and optional modules taken, but a typical formal summative assessment pattern for each year of the course is:

Year 1: 4 x laboratory reports, 2 x written examinations, 6 x multiple choice tests, 1 x essay, 2 x oral presentation, 1 x team report, 1x case study.

Year 2: 3 x practical report, 4 x written examinations/tests, 2 x essays, 1 x group presentation, 2 x lay summary/case study analysis, 1 x reflective report, 1 x research proposal, 1 x team report.

Year 3: 2 x practical report, 6 x written examinations/tests, 1 x Objective Structured Practical Examinations (OSPE), 1 x group report, 1 x group poster presentation, 2 x individual poster presentation, 3 x reflective report, 2 x action plans.

14. Assessment strategy

The BSc (Hons) Medical Sciences aims to develop autonomous and independent learners who possess a broad range of intellectual, practical and transferable skills. Assessment strategies have been developed following guidance from the [University Assessment Policy](#). A range of methods is used to assess students including examinations, practical skills tests, practical and laboratory reports, in-class tests, critical and reflective essays, oral presentations, poster presentations, case study interpretation, project design and the production of a research project thesis.

Students have opportunities to develop the appropriate skills necessary for the particular assessment type used before summative assessment takes place. Formative assessment is a key part of the learning process and takes a variety of forms including regular formative, interactive multiple-choice tests, formative laboratory report, formative practise for presentations, as well as informal feedback on essays and reports. Extensive feedback is given on assessments and students are supported, through the Personal Academic Tutoring Programme for the course, in reflecting and acting on this feedback in order to support their academic development.

As far as possible, assessments have been spread throughout the modules, however the skills and depth of understanding to be assessed take time to develop and consequently assessment deadlines do not generally occur in the first half of a module. The range of assessment tasks used and their weightings, together with a calendar of submission dates, is shown in the course handbook.

All module guides contain detailed assignment briefs, each with grading criteria specific for that particular assignment which are benchmarked to the University's generic

descriptors. Study Skills, which form part of the extended induction for Level 4 students, include sessions on how to make good use of this information, and Level 4 modules include Study Skills to support students with assessment preparation.

15. Programme structures and requirements

An award map template is appended to this document.

16. QAA and professional academic standards and quality

This award is located at Level 6 of the [OfS sector recognised standards](#). The course has been developed with reference to the [Subject Benchmark Statement for Biomedical Sciences \(2019\)](#) which has been used to inform course outcomes and skills. UW guidelines on work related learning and experience have also been followed.

17. Support for students

In addition to the University's Welcome Week, Level 4 BSc (Hons) Medical Sciences students have an induction programme extended throughout the year in one of the 30 credit modules and in the Progress Weeks in both Semester 1 and 2. This extended induction allows the necessary study skills to be developed at the most appropriate times for the students.

All students have a Personal Academic Tutor who they see at least four times at Level 4, and three times at Levels 5 and 6. The requirement to engage with the Personal Academic Tutoring Programme is linked to a mandatory module at each level of the course. The tutorial sessions are structured to guide and support each student, on an individual basis, throughout their course and to help them to realise their potential. The Personal Academic Tutors guide the students through completion of a Personal Development Plan related to the current [Subject Benchmark Statement for Biomedical Sciences \(2019\)](#) to enable students to plan the most appropriate path through their course and to increase employability. All tutors have an open-door policy.

The Disability and Dyslexia Service (DDS) provides advice and support to students who have a disability, medical condition or specific learning difficulty, including dyslexia. The DDS also provides support and advice to other departments and individual staff on how to ensure the needs of individual students are met. For more details see:

<https://www2.worc.ac.uk/firstpoint/>

<https://www.worcester.ac.uk/life/help-and-support/services-for-students/home.aspx>

<https://www2.worc.ac.uk/disabilityanddyslexia/>

There is a strong emphasis on practical and laboratory work in the University's excellent facilities, using specialist equipment to carry out course related experiments and independent research.

Students have access to a Virtual Learning Environment (which includes the Blackboard Learn and Microsoft Teams) to provide module-specific material, documents, activities, videos, etc. Students are given the Medical Sciences Course Handbook (published on an annual basis) to provide them with detailed course information, information on modules and options available, and details of how to access University support for their studies. Students are also given detailed module guides for each module which include planned teaching activities, attendance requirements, assessment briefs, assessment criteria and resource lists.

18. Admissions

We welcome applications from people of all ages and backgrounds with an interest in studying Medical Sciences. The University aims to be accessible; it is committed to widening participation and encouraging diversity in the student population. The School of Science and the Environment works closely with central student support services, including the Admissions Office, the Disability and Dyslexia Service and the International team (student services) to support students from a variety of backgrounds. We actively encourage and welcome people from the widest range of economic and cultural backgrounds, and value the contribution of mature students.

Entry requirements

The normal minimum entry requirement for undergraduate degree courses is the possession of 4 GCSEs (Grade C/4 or above) and a minimum of 2 A Levels (or equivalent Level 3 qualifications).

Applicants for the BSc (Hons) Medical Sciences must have an A Level pass in Biology, Human Biology or Chemistry and A Level pass in another science, Maths or Statistics. Alternatively, applicants for this course must have an A Level pass in Biology, Human Biology or Chemistry plus Level 3 qualifications in two other subject areas. Applicants with Pearson BTEC Level 3 National Extended Diploma DMM in a Science subject will also be considered. Students who successfully pass the University's Foundation Year in Biological Sciences will also be eligible to progress onto Level 4 of the Medical Sciences degree.

The current UCAS Tariff requirements for entry to this course are published in the prospectus and on the UW website <https://www.worc.ac.uk/journey/a-z-of-courses.html>

Mature Students

We welcome applicants who hold alternative qualifications/experience and mature students who can demonstrate the ability to benefit from the course and show their potential to complete the course successfully. Although recent preparatory study at an appropriate level (e.g. an Access to Higher Education Diploma) is recommended, students may be considered on the basis of prior evidenced professional/work experience and/or other assessment procedures, and the assessment of personal suitability. University Admissions office staff can offer information, advice and guidance on this process.

Recognition of Prior Learning

Details of acceptable Level 3 qualifications, policy in relation to mature students or applicants with few or no formal qualifications can be found in the prospectus or on the University webpages. Information on eligibility for recognition of prior learning for the purposes of entry or advanced standing is also available from the University webpages or from the Registry Admissions Office (01905 855111).

Further information on Recognition of Prior Learning can be found at: <http://www.worcester.ac.uk/registryservices/941.htm>

Admissions procedures

Applicants are considered on the basis of their UCAS application forms. It is not currently standard practice to interview candidates, but those entering via non-standard entry routes will be interviewed. Those who accept an offer will be invited to an Applicant Day to experience studying at Worcester.

Full-time applicants apply through UCAS code B190 for the three-year BSc (Hons) Medical Sciences and B191 for the four-year degree programme, [BSc (Hons) Medical Sciences with a Foundation Year].

International Students

If you are applying as an EU or Non-EU student, you are strongly advised to apply online through the Universities & Colleges Admissions Service (UCAS).

If you are using The Common Application, you can add the University of Worcester to your list of colleges via this link and complete the application there. Further information can be found here "Making an International Application".

Admissions/selection criteria

Offers are made in line with the entry requirements specified above and demonstration, via the application form, of a strong interest in Medical Sciences. The reference provided as part of the application is also taken into account. Students entering via nonstandard entry routes will be interviewed to assess their motivation and preparedness to succeed on this course.

See Admissions Policy for other acceptable qualifications.

19. Regulation of assessment

The course operates under the University's Taught Courses Regulatory Framework

Requirements to pass modules

- Modules are assessed using a variety of assessment activities which are detailed in module specifications.
- The minimum pass mark is D- for each module.
- A student is required to submit all items of assessment in order to pass a module, and in some modules, a pass mark in each item of assessment may be required.
- Full details of the assessment requirements for a module, including the assessment criteria, are published in the module outline.

Submission of assessment items

- A student who submits course work late but within 7 days (one week) of the due date will have work marked, but the grade will be capped at D- unless an application for mitigating circumstances is accepted.
- A student who submits work later than 7 days (one week) will not have work marked unless they have submitted a valid claim of mitigating circumstances.
- For full details of submission regulations please see the Taught Courses Regulatory Framework.

Retrieval of failure

- A student is entitled to resit failed assessment items for any module that is awarded a fail grade.
- Reassessment items that are passed are capped at D-.
- If a student is unsuccessful in the reassessment, they have the right to retake the module (or, in some circumstances, take an alternative module); the module grade for a re-taken module is capped at D-.

- A student will be notified of the reassessment opportunities in the results notification issued via the secure student portal (SOLE). It is the student's responsibility to be aware of and comply with any reassessments.

Requirements for Progression

- A student will be permitted to progress from Level 4 to Level 5 if, by the time of the reassessment Board of Examiners, they have passed at least 90 credits at Level 4. Outstanding Level 4 credits must normally be studied in the following academic year.
- A student will be permitted to progress from Level 5 to Level 6 if, by the time of the reassessment Board of Examiners, they have passed at least 210 credits, including 90 credits at Level 5. Outstanding Level 5 credits must normally be studied in the following academic year.
- A student who, by the time of the reassessment Board of Examiners, has failed 90 credits or more (after exhausting all reassessment opportunities) during the academic year will have their registration with the University terminated.
- If a student has not passed at least 90 credits by the reassessment Board of Examiners, the student is not permitted to progress to the next level and will be required to either complete outstanding reassessment or retake the failed modules the following academic year. Students will be able to carry forward any passed modules.

Requirements for Awards

Award	Requirement
Certificate of Higher Education, Cert HE Medical Sciences	In order to be eligible for the exit award of Certificate of Higher Education in Medical Sciences, a student must have passed at least 120 credits in total including the mandatory modules for Level 4 of the award as specified on the award map.
Diploma of Higher Education, DipHE Medical Sciences	In order to be eligible for the exit award of Diploma of Higher Education in Medical Sciences, a student must have passed at least 240 credits in total including the mandatory modules for Level 4 and Level 5 of the award as specified on the award map.
Degree (non-honours) Medical Sciences	Passed a minimum of 300 credits with at least 90 credits at Level 5 or higher and a minimum of 60 credits at Level 6 (taken from any of the 75 credits of mandatory modules at Level 6), including the mandatory modules for Level 5 and Level 6 of the award (not the Dissertation/Project module) as specified on the award map.
Degree with honours Medical Sciences	Passed a minimum of 360 credits with at least 90 credits at Level 5 or higher and a minimum of 120 credits at Level 6, including the mandatory modules for Level 5 and Level 6 of the award as specified on the award map.

Classification

The honours classification will be determined by whichever of the following two methods results in the higher classification.

- Classification determined on the profile of the 120 credits attained at Level 5 and 120 credits at Level 6. Level 5 and Level 6 grades are weighted on a ratio of 1:2
OR
- Classification determined on the profile of the 120 credits attained at Level 6 only
- Classification will be based on the weighted average grade together with a requirement for at least half of the Level 6 grades to be in the higher class.

For further information on honours degree classification, see the [Taught Courses Regulatory Framework](#).

Please Note: The above methods apply to students entering Level 4 of three or four year degree programmes who commence Level 4 from September 2022 onwards.

20. Graduate destinations, employability and links with employers

Graduate destinations

The BSc (Hons) Medical Sciences course is primarily designed as a route to graduate entry Medicine, placing graduates in an excellent position to apply for progression to Medicine degrees. The course is suitably aligned to the establishment of the Three Counties Medical School, to serve Worcestershire, Herefordshire and Gloucestershire, and the School intends to explore opportunities to secure a number of places on the UW Medicine degree course specifically set aside for successful BSc (Hons) Medical Sciences graduates, subject to meeting the entry criteria. Students will also be well placed to progress onto the [MSc Physician Associate](#), [MSc Healthcare Management and Leadership](#) and/or a range of leadership courses.

The honours degree will also equip students with the knowledge and skills to prepare graduates for a wide range of other careers in the medical sciences. Opportunities exist for careers in pharmaceutical and health sciences industries as well as in academia. The diverse study programme and extensive experience of analytical and practical techniques prepares graduates for employment in a wide range of laboratory-based roles. In addition, the course acts to support the development of key transferable skills such as independent thinking, scientific enquiry and analytical skills, required by many industries. This will enable students to apply for jobs within industries such as medical technology, and roles such as research and development, clinical trials, or management, sales and marketing.

Student employability

Careers and employability are embedded in the curriculum at all levels. At Level 4, students are introduced to the Careers Service in BIOS 1001 Cell Biology as part of the Science Personal Development Planning scheme and the module BIOL 1010 Professional Development in Biomedical Science introduces students to possible careers within the NHS and Biotech industries. This module develops analytical and laboratory skills, as well as giving the students the opportunity to connect with medical science professionals and gain more in-depth knowledge of different types of roles across the medical sciences. At Level 5, the Preparation for Graduate Entry Medicine module aims to prepare students for application to Medicine degrees. In

addition, the Level 5 in BIOS 2016 Professional Aspects of Biomedical Science looks at professional responsibilities and expectations, and enables students to explore different roles related to ethics, regulation and legislation in medical and healthcare sciences.

Careers advice is given at all levels of the course. Students are given the opportunity in almost every module to develop practical and work-related skills. A Personal Development Planning (PDP) table is provided in the Course Handbook and individual module guides to easily see the skills they will be supported in developing. Students will also record their practical skills in the Technical Skills Passport as a record to show prospective employers. Staff from both scientific and clinical fields will support students to develop key transferable skills whilst enhancing students' understanding of the healthcare industry in order to prepare them for a range of career options and in particular for progression to Medicine.

Links with employers

As a community engaged university, the University of Worcester has strong partnerships with local, regional and National organisations. In developing the course, the course development team has taken advantage of the Biological Science Employer Liaison Group to enhance the relevance of the course and maximise the employability of graduates.

Through the Employer Liaison Group, the University of Worcester has established links with a range of employers related to medical sciences. These include:

- Worcestershire Acute Hospitals NHS Trust
- Wye Valley NHS Trust
- Gloucestershire Hospitals NHS Foundation Trust
- Severn Biotech
- West Mercia Police
- Sequani Limited

These employers support both course development and delivery by informing course designers and teaching staff of the skills and competencies they require, by providing opportunities for student workplace visits, and by giving talks and demonstrations to students.

Please note: This specification provides a concise summary of the main features of the programme and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. More detailed information on the learning outcomes, content and teaching, learning and assessment methods of each module can be found in associated course documentation e.g. course handbooks, module outlines and module specifications.

Award map template for: Single Honours at Levels 4, 5 and 6
Course Title: BSc Hons Medical Sciences

Level 4

Module Code	Module Title	Credits (Number)	Status (Mandatory (M) or Optional (O))	Pre-requisites (Code of Module required)	Co-requisites/ exclusions and other notes*
BIOL1004	Introduction to Human Anatomy and Physiology	15	M	None	BIOS1010 exclusion
BIOL1001	Cell Biology	30	M	None	BIOS1201 exclusion
BIOL1003	Health and Disease	30	M	None	BIOS1203 exclusion
BIOL1005	Chemistry for the Life Sciences	15	M	None	BIOS1212, BIOS1205 exclusion
BIOL1007	Introduction to Genetics and Evolution	15	M	None	BIOS1212, BIOS1205 exclusion
BIOL1010	Professional Development in Biomedical Science	15	M	None	BIOS1400 exclusion

Single Honours Requirements at Level 4

Single Honours students must take 120 credits in total drawn from the table above to include all mandatory modules.

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Level 5

Module Code	Module Title	Credits (Number)	Status (Mandatory (M) or Optional (O))	Pre-requisites (Code of Module required)	Co-requisites/ exclusions and other notes*
BIOL2002	Systems Physiology 1	30	M	BIOL1001 & either BIOL1004 or BIOL1003	BIOS2106 exclusion
BIOL2004	Molecular and Cellular Biology	30	M	BIOL1001	BIOL2006 & BIOL2005 (exclusions) BIOS2201 exclusion
BIOL2015	Project Development	15	M	None	BIOS2400 exclusion
BIOL2016	Professional Aspects of Biomedical Science	15	M	None	BIOS2401 exclusion
BIOS2600	Medical Imaging	15	M	None	None
BIOS2601	Preparation for Graduate Entry Medicine	15	M	None	None

Single Honours Requirements at Level 5

Single Honours students must take 120 credits in total drawn from the table above to include all mandatory modules.

Level 6

Module Code	Module Title	Credits (Number)	Status (Mandatory (M) or Optional (O))	Pre-requisites (Code of Module required)	Co-requisites/ exclusions and other notes*
BIOL3002	Research Project	30	M	BIOL2015 or BIOS2400	BIOS3002 exclusion
BIOL3016	Clinical Biochemistry	15	M	BIOL2004	BIOS3116 exclusion
BIOL3025	Neuroendocrinology	15	M	None	BIOS3404 exclusion
BIOS3600	Microbiology and the Immune System	15	M	None	None
BIOS3601	Benchside to Bedside: Interdisciplinarity in Medical Science	15	M	None	None
BIOL3021	Sustainability in Public Health	15	M	None	None
BIOL3004	Pharmacology	15	O	BIOL2004	BIOS3106 exclusion
BIOL3013	The Biochemistry of Cancer	15	O	BIOL2004	BIOS3113 exclusion

Single Honours Requirements at Level 6

Single Honours students must take 120 credits from the table above to include all 105 credits of mandatory modules and 15 credits of Optional Modules from those listed above.