

## 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>	AB011H01UV AB011H31UV	Full-time Part-time	3 Years 6 Years
<b>UCAS Code:</b>			
<b>Course Title:</b>	BSc (Hons) Biological Sciences		
<b>Hierarchy of Awards:</b>	Bachelor of Science with Honours Biological Sciences Bachelor of Science Biological Sciences Diploma of Higher Education Applied Sciences Certificate of Higher Education Applied Sciences University Statement of Credit University Statement of Credit		
<b>Language of Study:</b>	English		
<b>Date of DAG approval:</b>	03/May/2017		
<b>Last Review:</b>	2017/8		
<b>Course Specification valid from:</b>	2010/1		
<b>Course Specification valid to:</b>	2023/4		

## Academic Staff

<b>Course Leader:</b>	Dr Roy Protheroe
<b>Head of Department:</b>	Georgina Manning

# Course Information

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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.

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## Entry Requirements:

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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)

### 2018 Entry

- A-Level minimum BB or CDD to include a Science subject preferably Biology
- Access to Higher Education Diploma requires 60 credits overall, 45 credits at Level 3 to include at least 18 Science credits at Merit.
- BTEC QCF Level 3 Extended Diploma in Applied Science grade MMP or BTEC National Diploma grade DM.
- Applicants will normally be expected to hold GCSE English and Maths at grade C+/4 or equivalent
- Successful completion of the International Foundation Year in Science and Engineering guarantees entry on to this course
- Suitable International entry requirements and application guidance can be found [here](#)

## Distinctive Features of the Course:

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The emphasis throughout the course will be on the applied nature of the study of biology in terms of how fundamental knowledge can be applied to tangible vocational situations and problems, together with the acquisition of practical and generic skills.

The intention of this approach will be to prepare students for their chosen career in any of the varied career options made available by a degree in Biological Sciences.

To achieve this the award is structured to enable students to apply information effectively, to work in teams, to gain insights into employment and actual industrial experience, to learn from the experiences of professionals, to acquire technical competence and to develop generic and time management skills.

## Educational Aims of the Course:

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Biology is a vast and endlessly fascinating area – this course provides an in-depth education in the molecular cellular and genetic activities of micro-organisms, plants, animals and humans.

With an emphasis on the applied aspects of the subject area, the course integrates technical, practical, problem solving and career relevant aspects of the award. Technical competence is an important aspect of the award hence you will be provided with ample opportunity to undertake hands-on experiments and computer based exercises which not only underpin theory, but also provide technical training.

Integrated throughout the course at all levels are transferable skills which range from written and oral communication to career and time management, together with numeracy and scientific writing. These skills will assist your studies and are valued by employers.

The award is technically supported by a full range of analytical equipment for the analysis of biological materials and for the investigation of microorganisms, plants, animals and human biology.

## Intakes:

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September

## Major Source of Funding:

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Office for Students (OFS)

## 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
2020/1	Home / EU	Full Time / Sandwich	£9250.00
2020/1	Overseas	Full Time / Sandwich	£12250.00
2020/1	H	Part Time	£3050.00
2020/1	Overseas	Part Time	£6125.00
2021/2	H	Full Time / Sandwich	£9250.00
2021/2	Overseas	Full Time / Sandwich	£13450.00
2021/2	H	Part Time	£3100.00
2022/3	H	Full Time / Sandwich	£9250.00
2022/3	Overseas	Full Time / Sandwich	£13950.00
2022/3	H	Part Time	£3120.00

## PSRB:

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AB011H01UV (Full-time)

Professional Accreditation Body:

Royal Society of Biology

Accrediting Body:

Royal Society of Biology

Accreditation Statement:

"Accredited by the Royal Society of Biology for the purpose of meeting, in part, the academic and experience requirement of membership and Chartered Biologist (CBiol)."

Approved	Start	Expected End	Renewal
01/Jul/2020	01/Jul/2020		30/Jun/2025

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AB011H31UV (Part-time)

Professional Accreditation Body:

Royal Society of Biology

Accrediting Body:

Royal Society of Biology

Accreditation Statement:

"Accredited by the Royal Society of Biology for the purpose of meeting, in part, the academic and experience

requirement of membership and Chartered Biologist (CBiol)."

Approved	Start	Expected End	Renewal
01/Jul/2020	01/Jul/2020		30/Jun/2025

Course Structure:

## September (Full-time)

Full time and Sandwich Undergraduate Honours students normally study 120 credits per academic year; 60 credits semester 1 and 60 credits semester 2.

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
4BC003	Cell Biology and Genetics	20	SEM1	Core
4AB023	Introduction to Biosciences	20	SEM1	Core
4BM024	Introduction to Microbiology	20	SEM2	Core
4AB026	Introduction to Plant Biology	20	SEM2	Core

### Group 03 | Min Value: 20 | Max Value: 20

If you would like to study a Human Biology route through the course choose 4BM016 in Semester 1 and 4BM017 and 4BM023 in Semester 2.

If you would like to study an Animal/Conservation route through the course choose 4AB010 in Semester 1 and 4AB026 and 4AB014 in Semester 2.

If you would like to study a Whole organism or Molecular route through the course choose 4BC005 in Semester 1 and 4AB026 and 4BM017 in Semester 2.

4BC005	Biochemistry for Life Science	20	SEM1	
4AB010	Animal Behaviour	20	SEM1	
4BM016	Human Form & Function	20	SEM1	

### Group 01 | Min Value: 20 | Max Value: 20

4AB014	Ecology	20	SEM2	
4BM017	Biomedical Basis of Disease	20	SEM2	

## September (Full-time)

Full time and Sandwich Undergraduate Honours students normally study 120 credits per academic year; 60

credits semester 1 and 60 credits semester 2.

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
5BC001	Molecular Biosciences	20	SEM1	Core
5BC005	Molecular Biosciences Practical Techniques	20	SEM1	Core
5AB031	Cellular and Organismal Biosciences	20	SEM2	Core
5AB030	Analytical Techniques in Biosciences	20	SEM2	Core

#### Group 01 | Min Value: 20 | Max Value: 20

If you would like to study a Human Biology route through the course choose 5BM048 in Semester 1 and 5BM046 and 5BM061 in Semester 2.

If you would like to study an Animal/Conservation route through the course choose 5AB010 or 5AB009 in Semester 1 and 5AB015 in Semester 2.

If you would like to study a Whole organism or Molecular route through the course choose 5BM048 in Semester 1 and 5BM061 in Semester 2.

5BM048	Anatomy and Physiology	20	SEM1
5AB009	Conservation Biology	20	SEM1
5AB010	Animal Behaviour and Captivity	20	SEM1
5AB032	Biochemistry	20	SEM1
5BM047	Principles of disease investigation in medical microbiology	20	SEM1

#### Group 02 | Min Value: 20 | Max Value: 20

5BM046	Human Physiology Practicals	20	SEM2
5BM061	Evolution & Development	20	SEM2
5AB015	Behavioural Ecology	20	SEM2

## September (Full-time)

Full time and Sandwich Undergraduate Honours students normally study 120 credits per academic year; 60 credits semester 1 and 60 credits semester 2.

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
6AB020	Honours Project (Biosciences)	40	YEAR	Core
6BC012	Advanced Topics in Biological Sciences	20	SEM1	Core

**Group 01 | Min Value: 20 | Max Value: 20**

If you would like to study a Human Biology route through the course choose 6BM017 in Semester 1 and 6BM043 in Semester 2.

If you would like to study an Animal/Conservation route through the course choose 6AB008 in Semester 1 and 6BC009 in Semester 2.

If you would like to study a Whole organism or Molecular route through the course choose 6AB023 in Semester 1 and two from 6AB025, 6BC007 or 6BC009 in Semester 2.

6AB023	Microbial Biotechnology	20	SEM1
6BM017	Advanced Human Physiology	20	SEM1
6AB008	Conservation of Aquatic Vertebrates	20	SEM1
6BC006	Bioinformatics	20	SEM1

**Group 01 | Min Value: 40 | Max Value: 40**

6AB028	Plant Biotechnology	20	SEM2
6BM043	Applied Physiology	20	SEM2
6AB025	Medical Microbiology	20	SEM2
6BC007	Advanced Molecular Genetics	20	SEM2
6BC009	Developmental Biology	20	SEM2

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:

AFRSC/17/22.4.4 - BSc (Hons) Biological Sciences/BSc (Hons) Genetics and Molecular Biology/BSc (Hons) Biochemistry/BSc (Hons) Microbiology and Biotechnology.

Section 1.2.5 - Exemption to permit less than 33% differentiation between cognate Biosciences honours degrees.

APPROVED (17/5/2018).

### Reference Points:

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UK Quality Code for Higher Education <https://www.qaa.ac.uk/quality-code>

UK Quality Code for Higher Education Advice Guidance <https://www.qaa.ac.uk/en/quality-code/advice-and-guidance>

Subject Benchmark Statements <https://www.qaa.ac.uk/en/quality-code/subject-benchmark-statements>

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

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### 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

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**BHONS01** Understand the breadth of biological sciences from chemical, biochemical and genetic levels, and appreciate their organismal function

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**BHONS02** Demonstrate an understanding of the biological relationships between the structure and activity of biomolecules and genetic organisation with the form and function of living organisms

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**BHONS03** Perform molecular, cellular and biochemical techniques relevant to the study of biology, including microorganisms, plants and animal cells

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**BHONS04** Use knowledge acquired to understand conservation and ecology, animal biology and genetics, together with microbiological applications in industry, including, where appropriate, social and ethical considerations

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**BHONS05** Participate in the development of biology through honours research project, to initiate theories, gather and formulate scientific information, reliably collate and analyse data, apply appropriate statistical tests, debate and draw conclusions

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**BHONSN01** Understand the breadth of biological sciences from chemical, biochemical and genetic levels, and appreciate their organismal function

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**BHONSN02** Demonstrate an understanding of the biological relationships between the structure and activity of biomolecules and genetic organisation with the form and function of living organisms

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**BHONSN03** Perform molecular, cellular and biochemical techniques relevant to the study of biology, including microorganisms, plants and animal cells

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**BHONSN04** Use knowledge acquired to understand conservation and ecology, animal biology and genetics, together with microbiological applications in industry, including, where appropriate, social and ethical considerations

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## Teaching, Learning and Assessment:

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The course will include a diverse range and variety of learning activities. These may include lectures, tutorials, seminars, practicals, discussion and case study investigation.

Information central to a module will be principally delivered by lectures with a proportion through directed e-learning. Fundamental principles will be reinforced and given applied relevance by case studies within tutorials and seminars. Increasingly, problem based exercises will be used to enable the application of knowledge to actual situations. Group working will be encouraged both within formal sessions and on-line. Practical skills will be undertaken and practiced to increasing levels of independence from the use of elementary equipment, to more advanced skills development and ultimately to the independent final year project as students progress through the course.

Vocational experience and relevance will be promoted by the Sandwich Placement and the use within modules of presentations by guest speakers with vocational specialism to emphasise the applied relevance of module content.

Digital literacy: This will be central to most activities. This will range from module organisation, familiarisation with core module content, literature searching, data analysis with interpretation and production of various forms of assessed work (including essays, posters, visual aids and practical reports) for

formative and summative submission. Assessed work is increasingly submitted, marked and made available for feedback electronically.

**Knowledge and Enterprising:** The use of problem based teaching and application of information will enable an appreciation of fundamental knowledge and how principles can be put to use. These approaches enable the development of enterprising mechanisms for solving problems. Students will be encouraged to seek placement and to gain industrial experience which will require enterprise in job seeking.

**Global Citizens:** Throughout the course students will be given the opportunity to consider case studies and real life situations which will be drawn not only from UK examples but also worldwide, to give an international perspective.

Assessment will involve varied tasks, including independent work and exercises involving group activities. Tasks involving examination, essay and report writing, experimental write-up, numerical and statistical analyses, case studies, industrial experiences and oral presentations are all encountered throughout the course. Some will be formative in nature to enable recognition of the type and level of assessment, while others will contribute to module grading.

**Level 4:** Theory assessments at level 4 often involve multiple choice assessment, designed to determine the acquisition of knowledge within subject areas. These will be available through Canvas and be both summative and formative.

Practical assessments usually are in the form of the directed completion of experimental manuals with sections for results, calculation from data, observations and discussions.

To assist development of writing, numerical, statistical and practical ability Introduction to Biosciences module runs throughout the year to ester 1 to support generic skills development.

**Level 5:** Theory assessments are more diverse with the use of essays, reports, posters, and full practical write-ups.

Actual work experience is made available through the optional sandwich industrial placement module. Students who undertake this option will fulfil actual employment roles with companies to gain experience of the work place together with working duties and responsibilities.

**Level 6:** Case study approaches and real-life scenarios drawn from the UK and overseas will be used to enable use of information to, for example, explore the production of biotechnologically related products, environmental contamination or animal conservation.

Independent research (in collaboration with a supervisor) occurs during the final year project, involving literature searching, experimental planning, time management, good laboratory practice, data collection, statistical analysis, oral presentation and report production.

Overall, assessment tasks will include:

Problem solving exercises

Presentations, oral and poster

Case studies

Practical reports

Phase Tests

Examinations, seen and unseen

Essays

Written assignments

Structured assessment of research projects from planning through to thesis submission

Appropriate use of formative, self, tutor and peer assessment methods

## 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

A well established system of proven effectiveness will exist for student support throughout the course. Students will have readily accessible (made possible via the SAMS appointment system) separate personal and award tutors to give guidance and assistance with course and module related problems as necessary.

Academic skills will be introduced initially by the Introduction to Biosciences module which runs in Semester 1 of the first year to provide a foundation in literature searching, data collection, statistical analysis and scientific presentation, including writing, referencing and oral presentation. The skills module will support both generic and practical skills which will be used on related modules during the year.

These skills will then be developed throughout modules with specific emphasis on particular skills for example group working (4BM024), practical competence (5BC005 and 5AB030), preparation for project (5AB030) case studies (6AB023; 6AB025) and oral presentation (6AB023).

Development of skills will be assisted by workshops and formative assessment exercises to prepare for summative assessment with timely and constructive feedback from assessed work to foster experiential learning.

Specific subject support programmes are organised by Learning Centre staff provide additional wide ranging support, literacy, numeracy, report writing, literature searching and referencing, etc.

Associate Teachers, together with Graduate Teaching Assistants) provide sessions for module and course information. Feedforward and feedback assessment support is intended to not only assist in areas of weakness but to also to stretch and develop areas of competence.

The Faculty of Science and Engineering Student Support Office is accessible every working day for non-academic related matters.

### Employability in the Curriculum:

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Employers are keen to see transferable skills within the curriculum. Transferable skills integrated in the course include:

Numeracy

Literacy

Numeracy

Report writing

Critical Thinking

Problem Solving

Team working/leadership

Time management

Communication

During Level 4 within 4AB023 Introduction to Biosciences, students undertake activities relating to gaining employability skills which can contribute to the Enterprise and Employability Award Silver.

During Level 5, students obtain instruction and guidance in CV production, which are subsequently used, in conjunction with a letter of application, to apply to prospective supervisors during the process of project topic allocation.

The sandwich version of the course is actively promoted and supported by a Sandwich tutor, which enables students to obtain valuable work experience during their year of placement. The experience of work placement on sandwich greatly enhances the employability of graduates.

A number of activities run in the University Career Development Week, to either heighten awareness of the application of science in industry and prospective jobs. These include visits to industry, participation in jobs fairs and postgraduate fairs and team building activities.

Within modules guest speakers from industry who are practitioners in specialist roles, provide explanation and insights into the roles of biologists in the workplace.

Assessment on the project module 6AB020 Honours Project (Biosciences), will involve a poster session to which prospective employers will be invited so that the skills acquired and used in research can be showcased to a wider audience.



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