

# **Course Specification**

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## **Core Information**

Awarding Body / Institution:	University of Wolverhampton		
School / Institute:	Wolverhampton School of Sciences		
Course Code(s):	AB011K23UV	Sandwich	4 Years
UCAS Code:	C121		
Course Title:	BSc (Hons) Biological Sciences with	a Sandwich Placement	
Hierarchy of Awards:	Bachelor of Science with Honours Biological Sciences, having satisfactorily completed a sandwich placement Bachelor of Science with Honours Biological Sciences Bachelor of Science Biological Sciences, having satisfactorily completed a sandwich placement Diploma of Higher Education Applied Sciences Certificate of Higher Education Applied Sciences University Statement of Credit University Statement of Credit		
Language of Study:	English		
Date of DAG approval:	25/Sep/2017		
Last Review:	2017/8		
Course Specification valid from:	2010/1		
Course Specification valid to:	2023/4		

## **Academic Staff**

Course Leader:	Dr Roy Protheroe	
Head of Department:	Georgina Manning	

## **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

#### 2017 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
- If you've got other qualifications or relevant experience, please contact <u>The Gateway</u> for further advice before applying.
- International entry requirements and application guidance can be found here

### Other Requirements

An offer of a place will not be made until you have attended a formal interview.

Those who do not meet the entry requirements may be offered an alternative course

#### Distinctive Features of the Course:

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 Applied Biological Sciences.

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

A placement can be undertaken anywhere; local, national or even, in some instances, international. During a placement, you will be doing similar work to a normal employee of the organisation giving you a unique insight into your chosen profession or sector, the opportunity to acquire crucial personal skills and also the opportunity to build a network of useful contacts. Many companies that employ graduates use placement programmes as a method of recruitment so you could be fast tracked into employment or onto one of their graduate schemes if you impress them.

The team at <u>The Workplace</u> constantly search for new placement opportunities but if you find an opportunity that interests you or you have been successful in securing one yourself, contact them for further information and support.

#### Educational Aims of the Course:

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 and animals.

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 and animals.

Intakes:	
September	
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
2020/1	Home / EU	Full Time / Sandwich	£9250.00
2020/1	Overseas	Full Time / Sandwich	£12250.00
2021/2	Н	Full Time / Sandwich	£9250.00
2021/2	Overseas	Full Time / Sandwich	£13450.00
2022/3	Н	Full Time / Sandwich	£9250.00
2022/3	Overseas	Full Time / Sandwich	£13950.00

### PSRB:

AB011K23UV (Sandwich)

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

## September (Sandwich)

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	Туре
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 (Sandwich)

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 (Sandwich)

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
5AB017	Sandwich Placement	40	YEAR	Core

## September (Sandwich)

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	Туре
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:

QAA Subject Benchmark Statement - Biosciences (2007).

#### Overview of Assessment:

## **Learning Outcomes** Modules BHONS01 Understand the breadth of biological sciences from chemical, biochemical and genetic levels, and appreciate their organismal function 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 BHONS03 Perform molecular, cellular and biochemical techniques relevant to the study of biology, including microorganisms, plants and animal cells 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 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 BHONSN01 Understand the breadth of biological sciences from chemical, biochemical and genetic levels, and appreciate their organismal function 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 BHONSN03 Perform molecular, cellular and biochemical techniques relevant to the study of biology, including microorganisms, plants and animal cells 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

#### Teaching, Learning and Assessment:

The award will include a diverse range and variety of learning activities. These may include lectures, tutorials, seminars, practicals, discussion and work experiences.

Information central to a module will be principally delivered by lectures with a proportion through directed elearning. 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 Work Experience module, 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 Methods:

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:

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 Biosciences Skills module which runs throughout 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 (4AB012), practical competence (5BC003 and (5AB007/5AB012), preparation for project (5AB012) case studies (6AB005) and oral presentation (6AB003).

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.

### Employability in the Curriculum:

With a degree in Biological Sciences a student would be eligible to apply for a number of career options, including employment or further higher education

A degree in Biological Sciences opens a variety of employment opportunities. With a knowledge of biological systems and having acquired transferable skills and technical competence, a range of career paths become available. Science related employment in technology based companies, whether multinational or smaller enterprises in biotechnology, agricultural, pharmaceutical and government agencies are all potential avenues. Food manufacturing and water companies require employees to undertake varied responsibilities such as quality assurance and the development and production of new products.

Options to study aspects of human and animal biology lead to a consideration of employment in biomedicine or animal welfare and conservation.

The broad scope of the award accommodates non-scientific careers and consequently teaching, retail, marketing and management are all realistic options.

For further higher education, MSc programmes such as Applied Microbiology and Biotechnology or Biotechnology at UofW or research to PhD, would be viable options.



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