

# UNIVERSITY OF WOLVERHAMPTON

**BSc Hons Animal Behaviour & Wildlife Conservation**  
**BSc Applied Biological Sciences**  
**BSc Applied Microbiology**  
**BSc Biotechnology**

## **COURSE GUIDE 2012/13**

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## About this guide

This Course Guide will help you plan your course. It tells you which modules you must study and pass, and lists the optional ones which contribute to your award. The Guide also offers you brief descriptions of each module, including general information about assessment tasks, and an overview of how the Course can be used for future career choices.

You should read this Course Guide in conjunction with the [Undergraduate Student Guide: the University's Policies and Regulations](#) and/or [Postgraduate Student Guide](#). These documents should provide you with all the basic information that we think you will need for your period of study here.

You are encouraged to read this Guide through now. It will be a considerable advantage to you to be familiar from the outset with the various aspects of your studies that are described. It may be that the relevance of some of the sections will not be immediately obvious. Keep it somewhere accessible, so that you can refer to it as needed. The answers to many of the questions that you will want to ask are contained in it.

Obviously even in a document like this we have not covered every query and problem that you might have about the course. If you find that there is something you need to know, please check on [SAS Student Support Portal in WOLF](#) or contact the SAS Student Support Office (details below). You can also consult the University's [Student Services Gateway](#) as appropriate. We are pleased to hear your views and welcome suggestions for ways of improving the operation of the Course.

Please enter the contact details for your Personal Tutor for your future reference:	----- <i>The name of your Personal Tutor will be given to you at the beginning of your course and can be checked via e:Vision</i>
Your School Student Support Office is:	<b>Student Support Office</b> <b>Room: MA104</b> <b>Tel : 01902 322129</b> <b>Email: <a href="mailto:sasstudentsupport@wlv.ac.uk">sasstudentsupport@wlv.ac.uk</a></b>
Your local <i>HERE 2 HELP</i> is:	Ground floor MD Building, City Campus (South) Tel: 01902 322487 Fax:01902 322185

Please note that in order to develop and improve the Course, it may be necessary on occasions to amend or revise the details given in this Course Guide.

## Welcome

On behalf of the Course Management Team I should like to extend to you a very warm welcome and I would like to take this opportunity to wish you every success in your studies at the University of Wolverhampton, and trust that your time at the University of Wolverhampton will prove to be enjoyable, stimulating and rewarding.

BSc Hons Animal Behaviour & Wildlife Conservation, BSc Hons Applied Biological Sciences, BSc Hons Applied Microbiology and BSc Biotechnology are four of many courses run by the School of Applied Sciences, which has established an excellent reputation for the quality of its courses, for an innovative approach to teaching and learning, and for the friendliness of its staff.

We believe it is important that you are encouraged to make your own contribution to the effective operation and development of your chosen course. We are, therefore, keen to hear your views and would welcome any suggestions that you may have about ways of improving any aspect of your course and/or the student experience here at the University. In practice, you will have the opportunity to do this through our 'student voice' processes, such as student forums.

Remember that the outcome of your studies could affect the whole of your future career and therefore study should certainly be your first priority. In resolving to work hard however, do not forget to have time for recreation and social activities. Make sure you take full advantage of the [University facilities](#) at your disposal.

Dr Kate Farr, Course Manager

[k.farr@wlv.ac.uk](mailto:k.farr@wlv.ac.uk)

Dr David Hill, Head of Department

[d.hill@wlv.ac.uk](mailto:d.hill@wlv.ac.uk)

## **Attendance**

The University recognises that you have made a significant investment in both time and money in choosing to study for a degree. Staff are committed to helping you fulfil your potential. Your attendance at, and participation, in classes is a key factor in ensuring that you do so.

Attendance will help you to:

- Understand the subject area you are studying;
- Acquire and develop the skills and knowledge needed to ensure success;
- Prepare for and undertake assessments;
- Learn from and with your fellow students;
- Receive feedback from teaching;
- Participate in practical and group work;
- Develop your communication skills.

If you are unable to attend a class please let your tutor know that you are unable to do so. He/she will then be able to give you advice on what was covered in the class, and what you need to do to catch up. Please do remember how important attendance is to your success.

**The University considers this to be so important that it reserves the right to review the position of students who fail to attend.**

## **The Wolverhampton Graduate**

**By the end of your course, the university expects you to be a** Wolverhampton Graduate who is knowledgeable and enterprising, digitally literate and a global citizen.

### **Digitally Literate**

Our graduates will be confident users of advanced technologies; they will lead others, challenging convention by exploiting the rich sources of connectivity digital working allows.

### **Knowledgeable and Enterprising**

Our graduates will know how to critique analyse and then apply knowledge they acquire in an enterprising way.

### **Global citizens**

Our graduates will bring informed understandings of their place and ethical responsibilities in the world.

Further information can be found on the University student webpage for [Graduate Attributes](#).

## About the Course

This Guide outlines the modules which are available, teaching and learning activities and assessment tasks. If there is anything you need to discuss further, please contact Dr Kate Farr, Course Manager, Dr Chris Young, Course Leader for ABWC, or Dr David Hill, Head of Department of Biology and Environment.

### BSc (Hons) Animal Behaviour & Wildlife Conservation

The BSc in Animal Behaviour and Wildlife Conservation is designed to develop your interest, knowledge and understanding of the behaviour of animals and the issues that affect their conservation. The course focuses on animals in their natural environments but we also explore important aspects of managing animals in captive settings. Whichever elements of the course you prefer, at the end of your studies you will be able to use the knowledge of the behaviour and biology of animals in order to contribute effectively to their protection and conservation.

Importantly, you will have lots of opportunities to develop your practical skills in behavioural observation, species survey and habitat assessment. The emphasis will be on wildlife species and their conservation in the UK, with field visits and residential fieldwork integral to the course, however there is a distinct international perspective to your studies as we draw on examples from around the world. You will use subject-specific IT, including geographical information systems, digital media, Global Positioning Systems and animal tracking technologies.

The species you will encounter cover the entire range from the animals found in your immediate environment, such as garden birds and butterflies, through to the large, charismatic mammals such as wolves, tigers and elephants. Your studies will provide you with the opportunity to study these more exotic species first hand through participation in international field courses (currently India, South Africa and Poland), as well as through engagement with zoos, aquaria and wildlife parks.

The mix of field-based information collection and recording, practical activity and class-based work you will do is unmatched in most other subject areas. The degree will allow you to pursue your passion for animals and give you a head-start in securing your ideal career, as well as giving you experiences that will last a lifetime.

### Course learning outcomes

By the end of this course you will be able to:

1. demonstrate knowledge and understanding of the behaviour of animals in their natural and captive environments
2. use the knowledge of the behaviour, ecology and biology of animals in order to effect the protection and conservation of species and their habitats
3. survey species and habitats successfully using the appropriate methods and practical skills in preparation for subsequent employment
4. understand the nature and extent of the practice of wildlife conservation and the wildlife conservation industry, allowing you to become an effective practitioner and advocate.
5. plan and execute wildlife-oriented studies with consideration for the unique ethical and welfare aspects of working with animals

## **BSc (Hons) Applied Biological Sciences**

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.

A sandwich year in an industrial or research setting, supported by a University supervisor, is an optional yet highly recommended opportunity which will give experience of working environments and provide invaluable vocational experience.

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.

### **Course learning outcomes**

By the end of the course you will be able to:

1. 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
2. perform molecular, cellular and biochemical techniques relevant to the study of biology, including microorganisms, plants and animal cells
3. participate in the development of biology, to initiate theories, gather and formulate scientific information, reliably collate and analyse data, apply appropriate statistical tests, debate and draw conclusions
4. 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

## BSc (Hons) Applied Microbiology

We encounter micro-organisms continually, since they exist on the surfaces we touch and on the foods we eat and drink, and even the air we breathe. In addition to the vital role of micro-organisms in disease and the environment they are also used in the manufacture of many products which we use and the foods we consume. The course aims to explore the applied use and exploitation of these micro-organisms in biotechnology, medicine, molecular biology, the environment and agriculture.

Technical competence is an important aspect of the award hence you will be provided with ample opportunity to undertake experiments which not only underpin theory but also provide training in analytical equipment.

The course will explore the molecular, cellular and genetic activities of bacteria, fungi, algae, protozoa and viruses. The applied and vocational aspects of the subject will be emphasised throughout the course to include the function of micro-organisms in disease, biotechnology, and the food and water industries.

A sandwich year in an industrial or research setting, supported by a University supervisor, is an optional, yet highly recommended opportunity which will provide invaluable work experience in settings from hospital pathology, to major biotechnology companies or food production facilities.

Integrated throughout the course at all levels are transferable skills of value to individuals and sought after by employers. These range from written and oral communication to career and time management together with numeracy and scientific presentation.

The award is technically supported by a full range of analytical equipment for the analysis of biological materials and microbial products.

### Course learning outcomes

At the end of this course you will be able to:

- 1 understand and be able to explain the biology and diversity of micro-organisms and their interaction and relationships with plants, animals and humans
- 2 appreciate the relationships between the molecular and cellular structure and activity of micro-organisms, together with the influence of environment on these activities in medical, industrial and environmental settings
- 3 perform laboratory cultivation, quantification, statistical analysis and investigation of microorganisms and their products both safely and reliably. To gather and formulate scientific information, reliably collate and analyse data and apply appropriate statistical tests
- 4 apply knowledge of the activities of micro-organisms to promote health, generate products and protect the environment, and where appropriate the social and ethical considerations relating to microbial exploitation

## BSc (ons) Biotechnology

Biotechnology is a rapidly expanding discipline which is finding applications throughout society including medicine, agriculture and the environment. The BSc Biotechnology course will provide a grounding in the basic principles of microbiology, plant biology, cell biology, genetics and the structure and function of biomolecules necessary to underpin the study of Biotechnology and demonstrate how these principles are applied for the development of useful products and applications.

Specialist facilities will enable the investigation of the biology of the cell and the nature of genes together with the biochemical analysis of biological products. The course explores the physicochemical principles associated with fermentation design and operations for the processing of materials by microbial, animal and plant cells (and their enzymes) including genetic modification to make useful products or purposes.

The course will also explore the social consequences of developments in biotechnology, considering the benefits and risks connected with recombinant DNA experiments and the use or release of genetically modified organisms and their products.

### Course learning outcomes

By the end of the course you will be able to

1. understand and apply the basic principles of microbiology, plant biology, cell biology, genetics and the structure and function of biomolecules necessary to underpin the study of biotechnology  
  
recognise and analyse the complex relationships between form and function in microorganisms, including their growth and development of organisms and their adaptation to the environment
2. perform laboratory analysis safely and reliably relating for the production and analysis of biological materials. Gather and formulate scientific information, reliably collate and analyse data and apply appropriate statistical tests
3. develop knowledge of the industrial processing of materials by cells and enzymes, including genetic modification, to make useful products or purposes
4. use knowledge of physicochemical principles associated with fermentation design to enable the processing of materials
5. recognise the social and ethical consequences of developments in biotechnology, considering the benefits and risks connected with recombinant DNA experiments and the use or release of genetically modified organisms and their products



## All courses

### Teaching and assessment

Relevant course material will be delivered principally through lectures, classroom discussion, group work, e-media (e.g. e-portfolios, WOLF) and practical sessions - including class, laboratory and (where appropriate) field-based. Depending on the module studied there will be different emphases on different methods, however there will be a strong emphasis on applying knowledge through practical and /or fieldwork and problem-solving approaches across all modules and levels of study.

Fundamental principles will be reinforced and given applied relevance by case studies within tutorials and seminars. 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, optional year-long Sandwich Placement and the use within modules of presentations by guest speakers with vocational specialisms to emphasise the applied relevance of module content. There will also be opportunities for overseas fieldwork in the ABWC course. Students are strongly encouraged to use work experience, a sandwich placement or international study to enhance employability and to develop personal course specialisms.

#### All students are entitled to :

1. have access, where possible, to an electronic copy of all lecturer-produced course documents e.g. module guides, assessment briefs, presentations, handouts, and reading lists ;  
Integration of module content and delivery is now standard across modules throughout the award. Each module has a related WOLF topic which is a repository for all aspects of module content, including lectures, tutorial topics (whether face-to-face or on-line) and practical schedules (often with supporting video and animation).
2. formative assessment opportunities, some of which may be on line, with appropriate meaningful assessment feedback;  
Formative assessment is increasingly being made use of across modules at all levels to engender positive learning strategies. Examples include multiple choice exercises of coursework with immediate marking and supportive advice, electronic submission with marking and feedback of practical reports prior to submission of assessed reports, and verbal feedback on student presentations prior to writing up as an assessed report.
3. have opportunities to collaborate in person or on line with others in their learning cohort;  
WOLF areas such as forums, course cafes and blogs enable student/student/supervisor interaction outside formal teaching environments. They are required or promoted to enable discussion when problem solving or for the collation of experimental results.
4. have the opportunity to participate in electronic Personal Development Planning (ePDP);  
ePDP (e.g. using PebblePad) is integrated at key points at all levels for all students. This allows for the development of reflective learning strategies and an independent learner

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| 5. where appropriate, submit assessments online;  | Where possible, assessed work is increasingly being submitted electronically. This includes, where appropriate, formative assessment and summative assessment of word processed documents or tailor-made pdf templates for student completion. |
| 6. have opportunities to engage in interactive learning during all face to face sessions. | Interactive learning is fundamental to many modules with student-student interactions and staff-student interactions using opportunities presented by generic and subject-specific interactive modes of study.                                 |

## **Academic Regulations**

This course adheres to the University's academic regulations. A full version of these regulations can be found on the University web page [for Policies and Regulations](#). These regulations govern your course and will be binding on you. It is, therefore, important that you read and become familiar with them.

It is your responsibility to act on academic advice provided to you on eVision or by your Tutor or course Leader.

## Course information

### Attendance

Except when you are undertaking independent study, or specifically identified “remote/distance” learning components, attendance at *all* taught sessions is required, including each taught day on field visits. Persistent non-attendance may result in being called in for interview and loss of credits. A student’s funding agency and / or loan company may refuse to finance students who attend only sporadically.

Your paid work and other responsibilities outside of the University must not detract from your ability to study effectively and should not interfere with your ability to attend any residential field courses, meetings, classes or assessments.

### Behaviour

The School of Applied Sciences expects that every student and member of staff should behave in a way that reflects the aims of the University as an equal opportunity organisation that respects the rights of all people. If you are unhappy with the way that you have been treated, report the incident immediately to your Tutor, or the School’s Equal Opportunities Adviser.

Staff and students are expected to treat each other respectfully and courteously. Any breach of good behavioural conduct will be viewed extremely seriously and formal action will be taken at the highest level against anyone breaking the rules of good conduct. A student causing disruption, significant offence to others, wilfully inflicting damage to property or hurt to a person is likely to be asked to leave the learning environment immediately. This could include University premises, a work placement, field visit or overseas exchange. If abroad, this could mean instant dismissal from the venue and it would be the student’s responsibility to make their way back to the UK, incurring any necessary charges.

Students are reminded of the need to behave appropriately at all times and to be a good ambassador for the University, particularly whilst away from University premises.

### Mobile phones

Mobile phones must be switched off in all computer suites and during examinations, and have sound switched off in all lecture rooms, practical laboratories, the Learning Centre and during field visits. Students may not use phones or other electronic media devices in class.

Photographs or films of students or staff anywhere in the University or on University activities (e.g. field visits), must not be taken, stored or uploaded except with the express permission of those being photographed / filmed.

## Fieldwork

In the ABWC course, the development of fieldwork skills is an essential component. This will normally involve some residential field courses away from Wolverhampton and other day and/or half day trips. Fieldwork is included in all years of study and builds towards an assessed portfolio or record of achievement. Fieldwork is an essential and integral part of the learning experience. It is expensive to run and co-operation is required from all students to ensure that maximum efficiency is gained from the field courses and money is not wasted, as this will jeopardise our efforts to run future field visits. Day-long site visits and fieldwork may also take place in other awards.

Field courses may take place inside and/or outside of term time. Attendance is compulsory unless specifically stated otherwise. Dates are provided in advance so students should ensure that they do not arrange holidays and other activities that clash with field courses.

Students must ensure that any necessary medication is brought to field venues. Staff are not allowed to administer medication. Students with special needs must inform the Special Needs Tutor and field course leader, well in advance of the field course, to ensure that appropriate teaching provision and accommodation can be provided. If, following these discussions, a venue is considered unsuitable to meet the learning outcome requirements for the student, or it is agreed that health and safety standards will be compromised, alternative provision will be discussed with the student.

**Costs of fieldwork will be included in the course fees. However, any student who wilfully absents himself or herself from a field course for which he/she is registered, and later attends a replacement field course may be asked to pay the full cost of travel and attendance.**

Students must provide appropriate clothing and footwear for outdoor work. Advice can be obtained from the field course leader or module tutor. Any student who is not appropriately dressed for fieldwork will not be allowed to participate in the field activities. Arrangements for meals on field courses will be explained before each visit. Students with special dietary requirements should let the field course leader know at least two weeks in advance of the visit.

It is a student's responsibility to turn up on time to meet transport that has been booked to take students to and from field visits. It is up to the student to ensure that s/he finds out about such arrangements before the departure date.

Students are normally expected to travel with the group. Any student wishing to make his or her own way to a venue must have good reason and must arrange this well in advance with the tutor leading the field course and, if necessary, gain written approval. Students may not normally use their own vehicles to drive during the field course. Students are advised not to take other students in their cars to or from field course venues as their insurance is unlikely to cover them in the case of an accident.

## Course Structure for undergraduate courses

UG Regulations (This section does not apply to Higher Nationals, Foundation Degrees and RN/Dip HE.)
Students will study:  <b>Standard Full-time:</b> modules worth 120 credits each academic year, taught over two semesters in the academic year.  <b>Part-time:</b> normally modules worth no more than 80 credits each academic year.

Details of core, core option and optional modules for each course are on the following pages.

Details of timetabling and rooming are available on the University website.

Details of individual modules are in module guides, accessible from WOLF.

### Prizes

There are prizes available to reward outstanding performances by students during the course of their studies. These are currently under review and details will be published when they have been confirmed.

Prizes may be awarded for overall consistent performance throughout the degree or for individual excellence in a module.

Final year prizes are awarded at the Congregation (graduation) ceremony.

## BSc Hons Animal Behaviour & Wildlife Conservation

### Level 4

Semester 1			Semester 2		
C	4AB009 Wildlife Conservation	20			
C	4AB011 Wildlife Practical and Fieldwork Techniques	20			
C	4AB010 Animal Behaviour	20	C	4AB015 Life of Mammals	20
C	4AB013 Animals Inside and Out	20	C	4AB014 Ecology	20

### Level 5

Semester 1			Semester 2		
C	5AB013 Wildlife Career and Research Skills	20			
C	5AB014 Fieldwork for Animal Behaviour and Wildlife Conservation	20			
C	5AB009 Conservation Biology	20	C	5AB010 Animal Behaviour and Captivity	20
C	5AB015 Behavioural Ecology	20	O	5AB007 Work Experience	20
			O	5AB016 International Studies	20
			O	5AB011 Independent Study	20
			O	5BM012 Evolution and Origin of Life	20

### Optional Sandwich Year

O	5AB017 Sandwich Placement	40
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BSc Hons Animal Behaviour & Wildlife Conservation continued

**Level 6**

Semester 1			Semester 2		
<b>C</b>	6AB003 Honours Project in Biological Sciences and Forensic Sciences			40	
<b>C</b>	6AB008 Conservation of Aquatic Vertebrates	20	<b>C</b>	6AB007 Animal Fieldwork Practice	20
<b>C</b>	6AB004 Applied Conservation Behaviour	20	<b>O</b>	6AB009 Seminar in Animal Behaviour and Wildlife Conservation	20
			<b>O</b>	6AB010 International Studies	20
			<b>O</b>	6AB005 Independent Study in Biological Sciences	20

## BSc Hons Applied Biological Sciences

Semester 1			Semester 2		
<b>Level 4</b>					
C	4AB008 – Bioscience Skills	20			
C	4PY013 – Molecular Basis of Life	20			
C	4AB007 – Plants & The Environment	20	C	4AB012 – Microbiology with Immunology	20
O	4BC001 - Chemistry for Forensic and Molecular Science	20	O	4AB014 - Ecology	20
O	4BC002 Forensic and Molecular Chemistry	20	O	4AB015 – Life of Mammals	20
O	4AB010 - Animal Behaviour	20	O	4BM008 - Human Physiology	20
O	4AB013 - Animals: inside and out	20			
O	4BM004 - Human Structure and Function	20			
<b>Semester 1</b>			<b>Semester 2</b>		
<b>Level 5</b>					
C	5AB008 - Cellular and organismal biosciences	20			
C	5BC001 – Molecular Biosciences	20			
C	5BC003 - Molecular Biosciences Practical Techniques	20	C O	Either: 5AB012 - Analytical Techniques in Biosciences Or: 5AB007 - Work Experience	20
O	5AB009 – Conservation Biology	20	O	5AB010 - Animal Behaviour and Captivity	20
O	5AB015 - Behavioural Ecology	20	O	5BM012 - Evolution and Origin of Life	20
<b>Optional Sandwich Year</b>					
O	5AB017 Sandwich Placement	40			



Semester 1			Semester 2		
BSc Hons Applied Biological Sciences continued					
<b>Level 6</b>					
<b>C</b>	6AB003 - Honours Project in Biological and Forensic Sciences				40
<b>C</b>	6AB001 - Microbial Biotechnology	20	<b>C</b>	6AB002 - Plant Biotechnology	20
<b>O</b>	6AB004 - Applied Conservation Behaviour	20	<b>O</b>	6AB009 - Seminar in Animal Behaviour and Wildlife Conservation	20
<b>O</b>	6BM015 – Human Development	20	<b>O</b>	6BM016 - Human Evolution	20
<b>O</b>	6AB005 - Independent Study in Biological Sciences	20	<b>O</b>	6AB005 - Independent Study in Biological Sciences	20

## BSc Hons Applied Microbiology

Semester 1			Semester 2		
<b>Level 4</b>					
C	4AB008 – Bioscience Skills				20
C	4PY013 – Molecular Basis of Life				20
C	4AB007 – Plants & The Environment	20	C	4AB012 – Microbiology with Immunology	20
O	4BC001 - Chemistry for Forensic and Molecular Science	20	C	4BM006 - Disease Biology and Public Health	20
O	4BC002 - Forensic and Molecular Chemistry	20			
Semester 1			Semester 2		
<b>Level 5</b>					
C	5AB008 - Cellular and organismal biosciences				20
C	5BC001 – Molecular Biosciences				20
C	5BC003 – Molecular Biosciences Practical Techniques	20	C O	Either: 5AB012 - Analytical Techniques in Biosciences Or: 5AB007 - Work Experience	20
O	5PY017 Pharmaceutical Microbiology	20	C	5EH001 - Food Microbiology and Biochemistry	20
O	5BC002 – Proteins	20			
<b>Optional Sandwich Year</b>					
O	5AB017 Sandwich Placement				40
Semester 1			Semester 2		
<b>Level 6</b>					
C	6AB003 - Honours Project in Biological and Forensic Sciences				40
C	6AB001 – Microbial Biotechnology	20	C	6BM010 - Medical Microbiology	20
C	6EH005 - Control of Water and Food-borne Disease	20	C	6AB006 - Contemporary Issues in Biology	20

## BSc Hons Biotechnology

Semester 1			Semester 2		
<b>Level 4</b>					
C	4AB008 – Bioscience Skills				20
C	4PY013 – Molecular Basis of Life				20
C	4AB007 – Plants & The Environment	20	C	4AB012 – Microbiology with Immunology	20
O	4BC001 - Chemistry for Forensic and Molecular Science	20	C	4BM006 - Disease Biology and Public Health	20
O	4BC002 - Forensic and Molecular Chemistry	20			
Semester 1			Semester 2		
<b>Level 5</b>					
C	5AB008 - Cellular and organismal biosciences				20
C	5BC001 – Molecular Biosciences				20
C	5BC003 - Molecular Biosciences Practical Techniques	20	C O	Either: 5AB012 - Analytical Techniques in Biosciences Or: 5AB007 - Work Experience	20
O	5PY017 Pharmaceutical Microbiology	20	C	5EH001 – Food Microbiology and Biochemistry	20
O	5BC002 – Proteins	20			
<b>Optional Sandwich Year</b>					
O	5AB017 Sandwich Placement				40
Semester 1			Semester 2		
<b>Level 6</b>					
C	6AB003 - Honours Project in Biological and Forensic Sciences				40
C	6AB001 - Microbial Biotechnology	20	C	6AB002 - Plant Biotechnology	20
C	6BC002 - Gene Manipulation and Bioinformatics	20	C	6AB006 - Contemporary Issues in Biology	20

# University Academic Calendar 2012/3

[University Academic Calendar.](#)

## Course Management and Staff Involved with the Course

Course Manager	Dr K. Farr	<a href="mailto:k.farr@wlv.ac.uk">k.farr@wlv.ac.uk</a>
Head of Department	Dr D. Hill	<a href="mailto:d.hill@wlv.ac.uk">d.hill@wlv.ac.uk</a>
Course Leader ABWC	Dr C. Young	<a href="mailto:c.h.young@wlv.ac.uk">c.h.young@wlv.ac.uk</a>
Special Needs Tutor	Dr N. Musgrove	<a href="mailto:n.j.musgrove@wlv.ac.uk">n.j.musgrove@wlv.ac.uk</a>
Work Experience Tutor	Dr R. Protheroe	<a href="mailto:r.g.protheroe@wlv.ac.uk">r.g.protheroe@wlv.ac.uk</a>
Sandwich Placement Tutor	Dr I. Hooper	<a href="mailto:i.hooper@wlv.ac.uk">i.hooper@wlv.ac.uk</a>

## Where to get help with your course

If you find that there is something you need to know, please check on [SAS Student Support Portal in WOLF](#) or contact the SAS Student Support Office in room MA104, Tel: 01902 322129 or e-mail: [sasstudentsupport@wlv.ac.uk](mailto:sasstudentsupport@wlv.ac.uk)

## Student Support

If you encounter any issues (personal or academic) the following diagram directs you to the appropriate department or staff member.



## **Employability & Your Personal Development Portfolio (PDP)**

### **What is 'Employability'?**

'Employability' is concerned with the development of skills aimed at enhancing your employment prospects throughout your time here at the University of Wolverhampton. Developing specialist subject and academic knowledge is important for employers but they also want to employ individuals who are able to:

- Communicate effectively,
- Work in a team and have good interpersonal skills.
- Solve problems
- Work on their own using their own initiative and are able to adapt to changing situations
- Be self-confident

### **How Will You Develop Your Employment Skills?**

At the School of Applied Sciences we aim to provide you with the opportunity to develop these through the modules you will be studying. The assessments you do for your modules are designed to help you develop Subject specific skills through the research you undertake for the assignments. In addition, they are also designed to help you develop other key skills such as your written communication skills. Where you have formal presentations, this will build your self-confidence in addition to helping you develop your skills of verbal communication. Working as part of a team will develop vital group-work skills. Attending your classes regularly will further ensure that you have the opportunity to develop other skills.

Throughout your time at the University, you will develop and be able to demonstrate a number of skills, some of which are listed below:

- Working as part of a group
- Demonstrating teamwork skills and leadership skills
- Effective communication
- Written (via reports etc.)
- Oral (through formal presentations)
- Problem-solving
- IT skills (which include use of basic packages for word processing, spreadsheets, use of email etc.)
- Time management – attending classes, handing in of assignments, planning study time

You may also be working part-time. The experience you gain within a work environment is a very worthwhile one and also helps you to develop transferable skills which are valued by employers.

## **Health & Safety issues**

### **Field and Laboratory Safety**

In addition to the normal University guidelines about health, safety and behaviour, you will also need to be particularly vigilant in laboratories and in the field. If you have any condition or disability which may compromise your safety you must inform the laboratory tutor or field course leader, and the School's Special Needs Tutor at the earliest opportunity.

You will be asked to read and sign a document about field and/or laboratory safety at the start of your course. You will be provided with a protective laboratory coat and lab equipment, but you must supply your own appropriate outdoor clothing if you do fieldwork. You must follow all safety

instructions issued to you by a member of staff. Any student who is deemed to be putting himself or herself or others at risk will be asked to leave the laboratory or field course with any consequent loss of study credits and possible resultant financial penalty.

If you elect to attend an overseas field course or exchange you are responsible for organising any necessary inoculations in good time, as well as ensuring that you have a valid passport and/or visa. Please be guided by instructions from staff about appropriate behaviour in the host country.

## Progression for Further Study

Graduates may choose to go on to study at Masters or PhD level, or undertake a PGCE course to prepare them for teaching. Further study can be undertaken at the University of Wolverhampton and elsewhere. Advice will be given during the undergraduate course.

## Career opportunities

As a graduate of **Animal Behaviour and Wildlife Conservation** you will have experience of a diverse mix of field-based information collection/recording, practical activity and office-based work that is unmatched in most other subject areas. As a result many graduates use their behavioural and conservation skills and knowledge to enter into employment with wildlife conservation organizations in both the public or voluntary sectors. Examples range from statutory bodies such as Natural England through to general Non-Government Organisations (NGOs) such as The Wildlife Trusts and species-specific NGOs such as Butterfly Conservation and the Royal Society for the Protection of Birds. Opportunities for employment extend beyond the UK as many organisations based in the UK or in other countries work overseas in areas from the tropics to the polar regions. Alternatively you may continue to higher, more specialized degree studies (PGCE, MA, MSc, MPhil or PhD) allowing you to develop significant expertise in your chosen area of study.

Where you have a stronger and specific interest in animal behaviour and captive environments you will be able to seek out additional career options with zoos, aquaria, game parks and other animal collections. Here you can bring your expertise to bear on all aspects of species management.

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

A degree in Applied 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 UoW or research to PhD, would be viable options.

With a degree in **Applied Microbiology** a student would be eligible to apply for a number of career options, including employment or further higher education.

Microbiologists are employed in a variety of biological disciplines within food, water, agrochemical and pharmaceutical industries, as well as in government, medical, environmental, scientific and research organisations.

Food manufacturing and water companies require microbiologists to ensure product safety and for the development and production of new commodities.

The skills inherent in the award are applicable to non-scientific careers and consequently teaching, retail, marketing and management are all realistic possibilities.

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

Having studied BSc **Biotechnology**, a wide range of careers within the life sciences awaits you. Research and development opportunities will be open to you such as working for multinational biological, agricultural, agrochemical, medical and pharmaceutical companies, food and drink industries and specialist biotechnology companies. In addition, you could gain employment in the fields of consultancy and teaching, or become a business research scientist, or a skilled technician in industry and food research institutions. The skills you learn can also be applied to a wide range of non-scientific careers. You could pursue a wide range of other careers including retail management and public services.

## School Charter for Students

The University is a community of learning; each and every member, be they staff or students, have responsibilities to that community as well as to themselves. All students of the university have the right to study in an environment that promotes success. This means that no one should be distracted by the inconsiderate behaviour of others; for example by people who arrive late, or talk in lectures or the learning centre.

### In order to help you achieve your objectives with us, we will strive to provide:

- Effective impartial advice and guidance
- An effective introduction to the University, the School of Applied Sciences and your chosen course
- A welcoming environment with quiet places to study
- Appropriate resources including books and computing resources
- Qualified and professional tutors and staff
- Stimulating and well planned learning opportunities
- Well-defined and appropriate programmes of study
- Opportunities to plan and review progress with tutors and student support workers
- Access to learning support
- Access to confidential counselling and careers advice

### We will aim to ensure that

- Timely and appropriate feedback will be provided on assessments
- You have a personal tutor
- You can book an appointment with your tutor using the on-line booking system
- You will have access to the information you need to progress on your course e.g. each module you study will be accompanied by a module guide, similarly your award/pathway will have a guide or handbook

You will find information about all of the above in your Pathway Guide or Award Handbook, or from your tutor or from the web.

### The University expects and needs you to:

- Make regular use of the electronic systems provided for your use e.g. e-Mail, e-Vision, Wolf and the student appointments system If you do not make use of these resources you cannot perform well.
- Attend regularly and punctually, this means for example, that you should not enter a teaching room after the session has started or miss appointments you have made to see staff.
- Given in all your assessments on time (or they will not be marked)
- Show courtesy and respect to staff and other students, this means for example, that cell phones should be turned off in all teaching sessions.
- Ensure that you understand the requirements of your award/pathway
- Ensure that you are aware of the requirements of each module you are studying and are aware which sessions to attend and what the assessment procedures are
- Respect and abide by University Regulations, e.g. Equal Opportunities Policy, ID Cards, quiet areas.
- Bring all the personal equipment that you require to classes/workshops
- Show consideration to others by listening attentively and participating in class activities
- Keep your tutor informed if you have personal problems that affect your work; if these problems make it necessary to seek extensions, to do so before the deadline
- Identify for yourself what constitutes academic misconduct such as plagiarism and make every effort to avoid it. (See <http://www.wlv.ac.uk/polsregs> for definitions and help)
- Use the student support office (Room MA104) to get quick answers to your queries without hunting for a lecturer.
- Seek approval for and confirm any change of programme within the deadlines
- Inform the University when your address or other contact details change
- Follow Health and Safety guidelines in laboratory and fieldwork settings.
- Behave appropriately as an ambassador for the University when working off campus.



## Academic Misconduct

***The University considers seriously all acts of academic misconduct, which by definition are dishonest and in direct opposition to the values of a learning community. Academic misconduct, if not challenged, will ultimately devalue academic standards and honest effort on the part of students.***

### Defining Academic Misconduct

#### ***Cheating***

*Cheating is defined as any attempt to gain unfair advantage in an assessment by dishonest means, and includes, for example, all breaches of examination room rules, impersonating another student, falsifying data, and obtaining an examination paper in advance of its authorised release.*

This is not an exhaustive list and other common examples of cheating would include –

- Being in possession of “crib notes” during an examination
- Copying from the work of another student
- Prohibited communication during an examination
- Acts of plagiarism or collusion as defined below

#### ***Collusion***

*Collusion is when two or more people combine to produce a piece of work for assessment that is passed off as the work of one student alone. The work may be so alike in content, wording and structure that the similarity goes beyond what might have been coincidence. For example – where one student has copied the work of another, or where a joint effort has taken place in producing what should have been an individual effort.*

Collusion should not be confused with the normal situation in which students learn from one another, sharing ideas and group work to complete assignments (where this is specifically authorised).

#### ***Plagiarism***

*Plagiarism is the act of taking someone else’s work and passing it off as your own. This includes incorporating either unattributed direct quotation(s) or substantial paraphrasing from the work of another/others. It is important to cite all sources whose work has been drawn on and reference them fully in accordance with the referencing standard used in each academic school.*

The most common forms of plagiarism are –

- Cut or copied and pasted materials from websites
- Copying the work of another student (past or present) including essays available through “essay bank” websites – or other data.
- Copying material from a text book or journal

*Students may go to great lengths to disguise the source reference they have been consulting in contributing to an assignment – without understanding that with proper referencing this is entirely acceptable.*

### **Support for Students**

The University, through its academic staff, will be both sympathetic and supportive in preventing plagiarism and other forms of academic misconduct.

A variety of support mechanisms are in place to help students succeed and avoid academic misconduct.

- Visit our study skills support website at [www.wlv.ac.uk/skills](http://www.wlv.ac.uk/skills) See the section on tackling academic misconduct.
- Download the Students' Union guide to Avoiding Academic Misconduct ("Read, Write, Pass") - available from the same webpages.
- Book an appointment to see a study skills adviser - through the Learning Centres.
- Speak to your personal tutor or module leader.
- Some modules require you to upload your work through *Turnitin*, a programme which detects copied sources.
- There is help available if you need it. The University caught and prosecuted 500 cases of Academic Misconduct last year - it is better to do the work than think you can get away with cheating - the penalties are severe...

### **Penalties**

Where an offence is admitted, or a panel decides that cheating, plagiarism or collusion has occurred, a penalty will be imposed. The severity of the penalty will vary according to the nature of the offence and the level of study. Penalties will range from failure of the assignment under investigation to a restriction of the award a student may ultimately achieve or a requirement to leave the University.

Full details about the University's policy on Academic Misconduct and regulations and procedures for the investigation of academic misconduct are available at our website: [www.wlv.ac.uk/polsregs](http://www.wlv.ac.uk/polsregs)