UNIVERSITY OF LINCOLN

Programme Specification

Programme Title: BSc (Hons) Biology

With Exit Awards at:
BSc Biology
Certificate of Higher Education Life Sciences
Diploma of Higher Education Biology

Release Date for this Programme Version:

6th September 2012

To be Delivered from:

Level	Date
Level 1 or Cert HE	*September 2012*
Level 2 or Diploma	*September 2013*
Level 3 or Honours	*September 2014*

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Section 1. Basic Programme Data

This document describes one of the University of Lincoln's programmes using the protocols required by the UK National Qualifications Framework as defined in the publication *QAA guidelines for preparing programme specifications.*

This programme operates under the policy and regulatory frameworks of the University of Lincoln. The latest versions of all regulations and policies can be found on the Secretariat area of the Portal. Any areas in which the programme varies from these, including: admissions, potential issues for students with disabilities, assessment and progression should be noted in Section 3.3.

Final Award and Programme Title	BSc (Honours) Biology
Subject	Biological Sciences
Exit awards and titles	BSc (Hons) Biology; BSc Biology; Certificate of Higher Education Life Sciences, Diploma of Higher Education Biology
Other programmes sharing modules with this programme	BSc (Hons) Animal Behaviour BSc (Hons) Animal Behaviour & Welfare BSc (Hons) Animal Mangement & Welfare BSc (Hons) Biology BSc (Hons) Bioveterinary Science BSc (Hons) Forensic Science BSc (Hons) Agriculture

Mode of delivery	Full time	X	Part time		Distance or E-learning	
Placement/Exchange	Yes		No	X		
Awarding body	University of Lincoln					
Teaching institution	University of Lincoln					
Campus	Brayford					
Department/School	Life Sciences					
Programme Leader	Adrian Goodman					

Relevant QAA Subject Benchmark Statement(s)	Biosciences (2007)
Professional, Statutory or Regulatory Body Accreditation	None

Section 2. Programme Description

2.1 Overview

This BSc (Hons) Biology is designed to meet the needs of students who want to gain knowledge and understanding of the breadth of modern biology within an academically challenging yet supportive research-led environment. Our aim is to produce confident, knowledgeable and questioning graduates with the skills and experience needed for a wide range of careers. This broad-based Biology programme builds on the success of the more specialist biosciences programmes currently offered within the University of Lincoln and includes teaching from ecology, agriculture, biochemistry, molecular biology, animal science, forensic and biomedical sciences. Students will be expected to integrate information and concepts from the breadth of biology, but will be given opportunities to develop specialist interests in their final year, as this will enhance their employability in certain sectors. Teaching and learning methods will include some conventional lectures and practical classes, which cover the core subject matter and technical skills, supported by tutorials and seminars which allow students to develop, analyse and present their own findings. Practical classes in laboratory and field allow students to practise project management and data gathering, handling and interpretation skills. All students will have the opportunity to conduct some original research in their final year research project, and will have opportunities to direct their curriculum at other points in the syllabus. A varied assessment diet has been designed to encourage and test the development of the skills and knowledge needed in their future careers. Students will be supported throughout their degree by a strong personal tutoring system.

2.2 Aims and Objectives

This programme aims to equip students with skills, knowledge and confidence necessary to pursue graduate careers in the biological sciences or other areas requiring graduates with strong analytical, communication and enquiry skills. This will be achieved by providing students with an educational framework in which they can develop their knowledge and understanding of the fundamental principles of biology in a context where skills development is encouraged and supported as an integral part of the academic experience. Students will be encouraged to learn independently and to pursue areas they find particularly interesting in an enquiry-based approach.

2.3 Variations to Standard Regulations and Guidance

None

Section 3. Programme Learning Outcomes

This is a definitive statement of the learning outcomes for the whole programme.

3.1 Knowledge and Understanding

On successful completion of this programme a student will have knowledge and understanding of:

A1 Molecular Biology: describe the basic reactions of life and major molecules of life especially DNA, RNA and key proteins and understand the relevance of this information to every aspect of biology.
A2 Cells: Demonstrate an understanding of the structure and function of various types of cells in unicellular and multicellular organisms, the structure and function of cell membranes.

A3 Understanding of the key metabolic and catabolic reactions of plants and animals, and how they are controlled.

A4 Genetics: underpinning importance of genetics as the key to modern biology including the potential for genomics and other 'omics' technologies to advance our knowledge and provide solutions to problems.

A5 Evolution: understand the fundamental process of natural selection and why it is the major conceptual advance that allows us to understand life.

A6 Behaviour: as response of organism to external and internal stimuli but understood within the interdisciplinary context of evolution, cell biology, physiology and ecology.

A7 Growth and reproduction relate to genetics, physiology, including nutrition, and environment, and influence everything (from food production to environmental degradation to disease to evolution and more)!

A8 Ecology and biodiversity: understand that all organisms live within and are adapted to the wider environment containing biotic and abiotic components, and that biodiversity is unevenly distributed. Understand the crucial role that diverse organisms play in regulating ecosystem functions and how these might be threatened by anthropogenic change.

A9 Biology is interdisciplinary and ever-changing – hypotheses can only ever be refined – and knowledge is rarely fixed.

A10 Change and scale – the world is changing and always has been – but scale and pace of anthropogenic scale is novel and has the potential to fundamentally change the biology of the planet.

A11 Demonstrate a thorough and critical knowledge of the primary literature and cutting-edge research questions in several areas of specialism as presented in final year modules.

3.2 Subject Specific Intellectual Skills

On successful completion of this programme a student will be able to:

B1 Design, manage, monitor, present and analyse critically research project work.

B2 Formulate hypotheses and design appropriate experiments and projects to test them.

B3 Demonstrate an understanding of key ethical issues relating to modern biology.

B4 Acquire, evaluate, process, interpret and criticise information, conclusions and opinions from scientific publications and press and other media reports.

B5 Demonstrate the ability to think independently.

3.3 Subject Specific Practical Skills

On successful completion of this programme a student will be able to:

C1 Work safely and effectively in the field, in laboratories and in animal facilities.

C2 Demonstrate competence in handling and statistical analysis of data gained from practical work.

3.4 Transferable Skills and Attributes

On successful completion of this programme a student will be able to:

D1 Clear oral and written communication of scientific information to audiences with different levels of background knowledge.

D2 Numeracy and ability to apply numeracy skills to a wide range of situations, including abstract application of simple mathematical models.

D3 Competence in relevant information technology as needed for career path and confident about own ability to learn new IT skills within a rapidly changing environment.

D4 Problem solving and critical analysis of own work, with effective personal time management.

D5 Team-work and working with others on projects, including demonstrating leadership as appropriate.

D6 Positive and effective strategies to support life-long learning.

D7 Confidence and self-awareness and ability to evaluate own strengths and weaknesses in the context of particular career choices.

Refer to Appendix I Curriculum Map for details of how outcomes are deployed across the programme.

Section 4. Programme Structure and Delivery Pattern

4.1 Programme Structure

The total number of credit points required for achievement of this award are 360 credit points. The total number of credit points required for achievement of each level and exit award within this programme are 120 credit points.
*N = New Module, M = Modified module, E = Existing unchanged module

Table 1: Programme Structure

Module title	Credit points	Core/Optional
Certificate (1)		
Cell Biology (M)*	15	C
Evolution and Ecology (M)	15	C
Integrative Biochemistry (M)	15	C
Biochemistry and Metabolism (M)	15	C
Research Methods for Life Scientists I (M)	15	C
Genetics (N)	15	C
Animal Anatomy and Physiology (M)	15	C
Plant Structure and Function (M)	15	C
Total Core Modules	120	8
Total Optional Modules	0	0
Intermediate (2)		
Molecular Biology (M)	15	C
Reproduction and Development (M)	15	C
Research Methods for Life Scientists II (M)	15	C
Ecology (M)	15	C
Medical and Veterinary Microbiology (M)	15	C
Plant-Animal Interactions (M)	15	C
Animal Management Systems (M)	15	O
Analytical Techniques (M)	15	O
Animal Behaviour (M)	15	O
Immunology (M)	15	O
Total Core Modules	90	6
Total Optional Modules	30	2 from 4
Honours (3)		
Life Sciences Research Project (M)	30	C
Evolution of Life Histories (N)	15	C
Current Issues in Life Sciences (M)	15	C
Molecular Ecology (N)	15	O
Forensic Anthropology (M)	15	O
Forensic Biology (M)	15	O
Genetics and Bioethics(M)	15	O
Overseas Field Course (M)	15	O
Behavioural Ecology (M)	15	O
Entomology (N)	15	O
Infection Sciences (M)	15	O
Total Core Modules	60	4
Total Optional Modules	60	4 from 8

For details of each module contributing to the programme, please consult the module specification document.

4.2 Programme Delivery Pattern

Table 2: Programme Delivery Pattern

Please copy, paste and adjust this table as appropriate for each alternative delivery mode. Each shaded cell = 15 credits unless otherwise stated below, * Overseas field course can be taken in either term.

Year 1	Cell Biology	Integrative Biochemistry	Research Methods for Life Scientists I	Animal Anatomy and Physiology
	Evolution and Ecology	Biochemistry and Metabolism	Genetics	Plant Structure and Function
Year 2	Molecular Biology	Research Methods for Life Scientists II	Medical and Veterinary Microbiology	Animal Management Systems Or Analytical Techniques
	Reproduction and Development	Ecology	Plant-Animal Interactions	Animal Behaviour Or Immunology
Year 3	Life Sciences Research Project (30 Credits)	Evolution of Life Histories	2 from: Molecular Ecology Forensic Anthropology Genetics and Bioethics *Overseas Field Course	
		Current Issues in Life Sciences	2 from: Behavioural Ecology Entomology Forensic Biology Infection Sciences *Overseas Field Course	

Section 5. Learning and Teaching

The programme ensures compliance with the Framework for Higher Education Qualifications in the following ways (quotations are from www.qaa.ac.uk/academicinfrastructure/FHEQ/EWNI/default.asp):

Those completing their studies at Certificate or Intermediate levels will have acquired, respectively, “sound knowledge of the basic concepts” and “sound understanding of the principles” of Biology. Honours graduands “will have developed an understanding of a complex body of knowledge, some of it at the boundaries [of the subject area]”. The syllabus aims to provide this knowledge, capitalising upon the research activity of the teaching staff. The syllabus is also designed to develop the “analytical techniques and problem-solving skills” relevant to graduate-level employment.
The curriculum is designed to enable students to demonstrate the attributes tabulated in Annex 1 of the Framework text.

5.1 Learning and Teaching Strategy

The overarching strategy for learning and teaching at the University of Lincoln is that of Student as Producer. Students are encouraged to see themselves as producers of knowledge and collaborators in their learning experience. This is particularly emphasised in students’ practical classes which are designed to develop their research skills via enquiry based learning. Electronically delivered module support and assessment will be a key additional tool to help develop the student learning experience. This ethos should be experienced throughout the Biology Degree programme but will be particularly stressed in a number of key modules including Integrative Biochemistry, Medical and Veterinary Microbiology, Research Methods for Life Scientists, Ecology, Plant-Animal Interactions, Overseas Field Course, Current Issues in Life Sciences and Life Sciences Research Project.

Lectures introduce key topics in the subject area and guide students’ independent study. Practicals will allow students to develop laboratory skills and skills in fieldwork, surveying, data handling and processing, as well as to encounter at first hand the principles introduced in the lectures. Students will also develop their own interests through self-guided research skills, as library based study and background research and project work. Seminars and small group tutorials will be used to facilitate class discussion. There will be site visits and lectures by external specialists to provide opportunities to meet employed biologists and employers of biologists. Reference will be made to the practical application of principles and the development of graduate skills will be included in subject specific units.

Students on the biology programme will be allocated to a personal academic tutor who will support them throughout their studies. This person will guide them during timetabled tutorials in the first year module Research Methods for Life Scientists, ensuring they develop sound study practice from their first term at Lincoln. Their academic tutor will be available for advice (including pastoral advice) and guidance at all key academic decision points during the degree and help them to develop a career plan based on the skills and attributes they have aquired during their degree.

5.2 Contact Hours

Programme Year				
1	2	3	4	
Contact Hours				

Average 12 hours per week	Average 12 hours per week	Average 12 hours per week		
Proportion of time spent in placements or study abroad				

Section 6. Assessment and Feedback

Assessment is varied to allow for the development and testing of all the skills listed as programme outcomes as well as the relevant knowledge and will include unseen examinations and coursework. Coursework will include laboratory exercises or reports, case studies, problem solving exercises, essays, poster or oral group presentations, short answer and structured questions and project reports.

All assessment will have a formative element as well as a summative element and feedback will be prompt and designed to enhance student skills. Assessment criteria will be made clear to students when the assignment is allocated at the start of the term in which the module is taught.

The use of technology is embedded within the learning process via our Virtual Learning Environment, Blackboard. Student electronic communities are used to facilitate communication and wikis are used to encourage students to develop their own shared learning resources.

Graduate employment data

None currently available; level 1 students only.

Appendix I - Curriculum Map

This table indicates which modules assume responsibility for delivering (shaded) and assessing (✓) particular programme learning outcomes.

C/O = Core or Optional

O = Core or Optional

Level	Module	C/O	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11		B1	B2	B3	B4	B5		C1	C2		D1	D2	D3	D4	D5	D6	D7	
1	Cell Biology	c		✓																	✓			✓							
	Evolution and Ecology	c					✓			✓											✓			✓							
	Integrative Biochemistry	c	✓		✓																✓			✓	✓						
	Biochemistry and Metabolism	c	✓		✓																✓			✓	✓						
	Research Methods for Life Scientists I	c													✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓	✓	✓	✓	
	Genetics	c	✓			✓			✓												✓	✓		✓	✓						
	Animal Anatomy and Physiology	c						✓	✓															✓							
	Plant Structure and Function	c		✓	✓		✓			✓														✓		✓					

Level	Module	C/O	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11		B1	B2	B3	B4	B5		C1	C2		D1	D2	D3	D4	D5	D6	D7	
2	Molecular Biology	c	✓			✓																		✓							
	Reproduction and Development	c							✓															✓							
	Research Methods for Life Scientists II	c									✓				✓	✓	✓		✓			✓		✓	✓	✓			✓		
	Ecology	c					✓		✓	✓		✓			✓						✓	✓		✓	✓						
	Medical and Veterinary Microbiology	c		✓																	✓			✓							
	Plant Animal Interactions	c					✓	✓			✓					✓			✓					✓					✓		

	Animal Management Systems	o							✓									✓	✓						✓							
	Analytical Techniques	o																	✓			✓	✓		✓	✓		✓				
	Animal Behaviour	o						✓															✓			✓	✓					
	Immunology	o		✓	✓																		✓			✓						

Level	Module	C/O	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11		B1	B2	B3	B4	B5		C1	C2		D1	D2	D3	D4	D5	D6	D7	
3	Life Sciences Research Project	c									✓		✓		✓	✓	✓	✓	✓		✓	✓		✓	✓	✓	✓		✓	✓	
	Evolution of Life Histories	c					✓			✓														✓							
	Current Issues in Life Sciences	c									✓	✓	✓					✓						✓			✓				
	Molecular Ecology	o	✓				✓			✓														✓							
	Forensic Anthropology	o							✓		✓													✓							
	Forensic Biology	o	✓			✓					✓													✓							
	Genetics and Bioethics	o				✓	✓				✓						✓					✓		✓							
	Overseas Field Course	o								✓	✓	✓	✓		✓	✓	✓	✓	✓		✓	✓		✓	✓		✓	✓	✓		
	Behavioural Ecology	o					✓	✓		✓	✓													✓							
	Entomology	o							✓	✓			✓											✓							
	Infection Sciences	o		✓		✓			✓									✓						✓							

Appendix II - Benchmarking Analysis or National Guidance

	In this table, the columns list the headings of the Bioscience (2007) benchmark standards, as they are grouped in the benchmark statement. The rows list the programme learning outcomes. The serials in each cell indicate which benchmark prescriptions are met by each programme learning outcome (A1-11, B1- and C.	Intellectual	Practical	Numeracy	Comm, Pres & IT	Teamwork	Self	Generic (G)	Molecular (M)	Organisms (O)	Environmental (E)
A1	Molecular biology	1						3	1,6	3	
A2	Cell biology	1						3	3,4,5	1,2,3, 6	
A3	Metabolism	1						3	2,6	1,2,3	
A4	Genetics	1						3	3	3,5	
A5	Evolution	1						3	3	5,6	
A6	Behaviour	1						3		4,9	
A7	Growth and reproduction	1						3		1,2,3, 4,7,9	8
A8	Ecology and biodiversity	1						3	5	1,3,4, 6,7,8	1,2,3,4,5, 6,7,8,9
A9	Interdisciplinarity	1,2,3,4				4		1,3			
A10	Scale and pace of change	1,2				4		3,7			
A11	Specialist knowledge	1,2	1,3					3,7	3		
B1	Safe working		4,3				1	2	6,7		
B2	Statistical competence		2	1,2,3,4				4,6			
B3	Manage research projects	2	3,4	3,4		1	1,2	2,4			
B4	Formulate and test hypotheses		2,4	2,3			1	2,4	6		
B5	Ethical issues	5	4					5,			
B6	Information processing	2			2			3,4			

B7	Communicate complex biological issues	2			1			1			
B8	Think independently	2					1	1,3			
C1	Clear communication				1			1			
C2	Numerate		3	1,2,3				6			
C3	IT Skills		1,3	3,4	3			6			
C4	Problem solving and time management	3,4					1,2	1,2,4			
C5	Team working		2,3,4			2,3,4	1				
C6	Positive approach to learning						1,2,3	7			
C7	Confident and self-aware					3	1,2,3	7			

This table summarises the key features of BSc (Hons) Biology, with the particular aim of demonstrating the mapping between programme learning outcomes and the QAA benchmark statement for the subject of *Biosciences.*

The QAA Subject Benchmark Statement for Biosciences tabulates the standards required of students to achieve honours degrees as follows. The specific graduate and key skills that should be developed in bioscience degree courses are subdivided into the following headings:

- intellectual skills;
- practical skills;
- communication skills;
- numeracy, communications and information technology (C & IT) skills;
- interpersonal and teamwork skills;
- self-management and professional development skills.

Intellectual skills

1. recognising and applying subject-specific theories, paradigms, concepts or principles. For example, the relationship between genes and proteins, or the nature of essential nutrients in microbes, cells, plants and animals;
2. analysing, synthesising and summarising information critically, including published research or reports;
3. obtaining and integrating several lines of subject-specific evidence to formulate and test hypotheses;
4. applying subject knowledge and understanding to address familiar and unfamiliar problems;
5. recognising the moral and ethical issues of investigations and appreciating the need for ethical standards and professional codes of conduct.

Practical skills

1. undertaking sufficient practical work to ensure competence in the basic experimental skills as appropriate;
2. designing, planning, conducting and reporting on investigations, which may involve primary or secondary data (e.g. from a survey database). These data may be obtained through individual or group projects;
3. obtaining, recording, collating and analysing data using appropriate techniques in the field and/or laboratory, working by themselves or in a group, as is most appropriate for the subject under study;
4. undertaking field and/or laboratory investigations of living systems in a responsible, safe and ethical manner. For example, students must pay due attention to risk assessment, relevant health and safety regulations, and procedures for obtaining informed consent. In some biosciences, graduates will show that they respect the rights of access, for example in field work or in order to map the genes of a community, family or group of plants or animals, including humans. They should show sensitivity to the impact of investigations on the environment, on the organisms or subjects under investigation, and on other stakeholders.

Numeracy skills

1. receiving and responding to a variety of sources of information: textual, numerical, verbal, graphical;
2. sample selection; recording and analysing data in the field and/or the laboratory; validity, accuracy, calibration, precision, replicability and uncertainty during collection;
3. preparing, processing, interpreting and presenting data, using appropriate qualitative and quantitative techniques, statistical programmes, spreadsheets and programs for presenting data visually;
4. solving problems by a variety of methods including the use of computers;

Communication and information technology skills

1. communicating about their subject appropriately to a variety of audiences using a range of formats and approaches;
2. citing and referencing work in an appropriate manner, including the avoidance of plagiarism;
3. using the internet and other electronic sources critically as a means of communication and a source of information.

Interpersonal and teamwork skills

1. identifying individual and collective goals and responsibilities and performing in a manner appropriate to these roles;
2. recognising and respecting the views and opinions of other team members; negotiating skills;
3. evaluating performance as an individual and a team member; evaluating the performance of others;

4. developing an appreciation of the interdisciplinary nature of science and of the validity of different points of view.

Self-management and professional development skills

1. developing the skills necessary for self-managed and lifelong learning (e.g. working independently, time management and organisation skills);
2. identifying and working towards targets for personal, academic and career development;
3. developing an adaptable, flexible, and effective approach to study and work.

The generic standards, together with those applicable to Molecular Biology, Organisms and Ecology and Environmental Biology are listed here. For clarity in discussion and reference, each has been assigned a code. Benchmark statements not seen as central to Biology *italics.*

Generic standards, not specific to any particular area

G1- be able to access and evaluate bioscience information from a variety of sources and to communicate the principles both orally and in writing (e.g. essays, laboratory reports) in a way that is well-organised, topical and recognises the limits of current hypotheses

G2- have ability in a broad range of appropriate practical techniques and skills relevant to the biosciences. This will include the ability to place the work in context and to suggest lines of further investigation

G3- have a secure and accurate understanding of the explanation of biological phenomena at a variety of levels (from molecular to ecological systems) and be able to understand the relationship of evolutionary theory to their area of study

G4- be able to plan, execute and present an independent piece of work (eg a project), in which qualities such as time management, problem solving and independence are evident, as well interpretation and critical awareness of the quality of evidence

G5- be able to construct reasoned arguments to support their position on the ethical and social impact of advances in the biosciences

G6- be able to apply relevant advanced numerical skills (including statistical analysis where appropriate) to biological data

G7- have well-developed strategies for updating, maintaining and enhancing their knowledge of the biosciences

5.12 On graduating with an honours degree in biosciences in which the study of molecular aspects of biology (including biochemistry) forms a significant proportion, students should:

M1. be able to understand and explain the chemistry that underlies biochemical reactions and the techniques used to investigate them

M2. *understand the principles that determine the three-dimensional structure of biological macromolecules and be able to explain detailed examples of how structure enables function*

M3. acquire a critical understanding of the molecular basis of genetics and be able to explain some detailed examples
M4. have critical knowledge and understanding of gene expression, with a detailed knowledge of specific examples; the structure, arrangement, expression, and regulation of genes; and relevant experimental methods
M5. be familiar with a wide range of cells (both prokaryotic and eukaryotic) and be able to explain critically how their properties suit them for their biological function, and how they could be investigated experimentally
M6. be able to devise and evaluate suitable experimental methods for the investigation of relevant areas of biochemistry and molecular biology
M7. have a critical understanding of essential features of cell metabolism and its control, including topics such as energy and signal transduction, respiration and photosynthesis. This should include knowledge and experience of some experimental techniques
M8. *understand the chemical and thermodynamic principles underlying biological catalysis and the role of enzymes and other proteins in determining the function and fate of cells and organisms*.

Organisms

O1- critically analyse the impact of external influences on growth and reproduction, and explain reproductive strategies

O2- critically recount the interactions of structure and metabolic function at cellular and organismal levels

O3- describe and critically evaluate the evidence for the mechanisms of life processes

Appendix III - Assessment Map

The Assessment Map appendix is for presentation at the (re)validation event only. It does not form part of the definitive programme specification and will be removed before documents are made publically available.

The following tables indicate the spread of assessment activity across the programme.
Percentages should be used to indicate assessment weighting.
Type of assessment is indicated by a letter as indicated by the following key.

Method	Code	Method	Code	Method	Code
Examination	E	Portfolio	P	Practical Assessment	PA
Assignment	A	Presentation	PR		
Report	R	Attendance	AT		

Where assessment is group based, the entry is indicated by the letter 'G'.
Where the assessment may be spread across a number of weeks, such as presentations, the entry is made in italics.

C/O = Core or optional

NB Examinations in term 2-3 will occur in the university examination period; approximately two weeks after week 12.

Level 1	Term	Module Title	C/O	1	2	3	4	5	6	7	8	9	10	11	12	
	1	Cell Biology	C									50% PA			50% E	
	2-3	Evolution and Ecology	C					50% A								50% E
	1	Integrative Biochemistry	C								50% PA				50% E	
	2-3	Biochemistry and Metabolism	C								50% PA					50% E
	1	Research Methods for Life Scientists I	C										50% A	10% AT	40% E	
	2-3	Genetics	C									50% PA				50% E
	1	Animal Anatomy and Physiology	C									50% A			50% E	
	2-3	Plant Structure and Function	C											50% A		50% E

Level 2	Term	Module Title	C/O	1	2	3	4	5	6	7	8	9	10	11	12	
	1	Molecular Biology	C							50% *PRG*				50% PA		
	2-3	Reproduction and Development	C						50% A							50% E
	1	Research Methods for Life Scientists II	C										50% A		50% E	
	2-3	Ecology	C									50% A				50% E
	1	Medical and Veterinary Microbiology	C					50%PA						50%A		
	2-3	Plant Animal Interactions	C					50% A								50% E
	1	Animal Management Systems	O						25% A						75% A	
	1	Analytical Techniques	O								50% PA				50% E	
	2-3	Animal Behaviour	O						50% A							50% E
	2-3	Immunology	O							50%PA						50% E

Level 3	Term	Module Title	C/O	1	2	3	4	5	6	7	8	9	10	11	12	
	1-3	Life Sciences Research Project	C										75%R		25%PR	
	1	Evolution of Life Histories	C								50% PR				50% E	
	2-3	Current Issues in Life Sciences	C											50% P		50% E
	1	Molecular Ecology	O						50% *PRG*						50% E	
	1	Forensic Anthropology	O								50% PA				50% E	
	2-3	Forensic Biology	O										50% PA			50% E
	1	Genetics and Bioethics	O												100% PA	
	1 or 2-3	Overseas Field Course	O	10% A	5% A 25%PR					60% R						
	2-3	Behavioural Ecology	O													100% E
	2-3	Entomology	O													100% E
	2-3	Infection Sciences	O									50%				50% E