

PROGRAMME SPECIFICATION FOR AN AWARD OF THE UNIVERSITY OF EAST ANGLIA

Course name	Course code <i>note</i> <i>PS</i>	Year
BIOLOGICAL SCIENCES	U1C100302	2017/18
BIOLOGICAL SCIENCES	U2C100602	
BIOLOGICAL SCIENCES WITH A YEAR ABROAD	U1C10C402	
BIOLOGICAL SCIENCES WITH A YEAR IN INDUSTRY	U1C104402	
VISITING STUDIES IN BIOLOGICAL SCIENCES (UNDERGRADUATE)	U1C100V01	
BIOLOGICAL SCIENCES WITH A FOUNDATION YEAR	U18C91401	

NOTE: Whilst the University will make every effort to offer the modules listed, changes may sometimes have to be made for reasons outside the University's control (e.g. illness of a member of staff) or because of low enrolment or sabbatical leave.

COURSE SUMMARY

S1	a	SCHOOL(S) OF STUDY	Biological Sciences	
<i>note S1c</i>	b	FACULTY or FACULTIES	Science	
	c	JOINT COURSE? (i.e. owned/taught by more than one School)	YES	
			NO	X
d	NAME OF COURSE DIRECTOR (Home School)	Dr. Andrew Chantry		
	e	NAME OF DEPUTY COURSE DIRECTOR (partner School, for Joint Courses only)	Prof Ian Clark (C104) Dr Mette Mogensen (C10C) Dr Helen James (C100V) Dr Kelly Edmunds (8C91)	
S2	a	COURSE TITLE	Biological Sciences Biological Sciences with a Year in Industry Biological Sciences with a Year Abroad Visiting Studies in Biological Sciences Biological Sciences with a Foundation Year	
	b	COURSE CODE	U1C100302 U2C100602 U1C10C402 U1C104402 U1C100V01 U18C91401	
<i>note S2c & S2d</i>	c	AWARD	BSc (Hons) Biological Sciences BSc (Hons) Biological Sciences with a Year in Industry BSc (Hons) Biological Sciences with a Year Abroad	
	d	EXIT AWARD(S) AND TITLE(S)	Certificate of Higher Education, Diploma of Higher Education, BSc	
	e	FULL/PART-TIME (please specify)	Full-time	
	f	LOCATION (UEA Norwich, Distance Learning)	UEA Norwich	
	g	AVAILABLE FROM:	2017/8	
S3 <i>note S3a</i> <i>note S3b</i>	a	PROFESSIONAL AWARD (if any)		
	b	ACCREDITING/VALIDATING BODY (if relevant)		
		Website (URL)	Blackboard	
		Date when accreditation/validation may take place		
S4a	LEVEL	Sub-degree (e.g. Cert. Dip.)	Level 4: Certificate of Higher Education; Level 5: Diploma of Higher Education,	

<i>note S4a</i>		Undergraduate	Level 6: Honours degree;
		Integrated Masters	
		Masters	N/A
		Other postgraduate (please specify)	N/A
S4b <i>note S4b</i>	FHEQ STATEMENT	Please detail how the programme meets the relevant qualification descriptor from the Framework for Higher Education Qualifications (FHEQ)	<p>The Framework for Higher Education Qualifications (FHEQ) and the Bioscience benchmark statement have guided the overall objectives of the C100 programme. The detailed educational aims are now embedded within programme specifications, and these are summarised below;</p> <ul style="list-style-type: none"> • To produce high quality graduates capable of proceeding to careers in research, or careers at graduate level in biology-related and non-biology-related areas. • To offer a broadly-based course, providing a diversity of teaching methods in a strongly research-informed environment that enables the delivery of research-led teaching; to motivate our students, to inculcate enthusiasm for the subject and to instil an understanding of scientific research, scholarship and ethics. The programme aims to introduce students to the practice and evaluation of scientific research and builds on this throughout the programme, culminating in the final-year research project. • To attract undergraduates with differing backgrounds, both mature students and school leavers, and to provide them with a progressive acquisition of subject knowledge. • To provide a full-time programme where students can consolidate, deepen and extend their knowledge over the course. Through a learning and teaching strategy designed to provide greater support during the first year, but also to encourage the development of independence and self-directed study, the

			<p>programme aims to allow students to progress both in biological knowledge and in their own learning skills.</p> <ul style="list-style-type: none"> • To provide a choice of modules that allows students to construct an education appropriate to their varied interests and career intentions, but which also provides the flexibility to enable students to specialise by transferring to one of the three-year specialist programmes offered by the School. • To enable the achievement of competence in the methods, techniques and approaches appropriate to experimental work in a modern biological laboratory, or in the field. To undertake such work in a responsible, safe and ethical manner. • To cultivate in students the general intellectual skills of reasoning, independent study, self-management and self-motivation, oral and written self-expression, quantitative methods, IT literacy, and independent research and scholarship. To provide a range of transferable skills such as time management and organisational skills, enabling an effective approach to study and work. 			
S5 <i>note S5a</i>	a	DURATION (years or months)	3 -12 months (Visiting studies); 1 year (Foundation Year); 3 Years (BSc). All other programmes 4 years			
<i>note S5b</i>	b	MODE OF ATTENDANCE (full-time, part-time, distance, other)	Full-time (and part-time for Biological Sciences C100)			
S6 <i>note S6</i>		PLACEMENT(S)/WORK-BASED LEARNING REQUIRED	<table border="1"> <tr> <td>YES</td> <td>x</td> <td>NO</td> </tr> </table>	YES	x	NO
			YES	x	NO	
<p>If YES, does this conform with the UEA's code of practice on placements?</p>	<p>For Year in Industry and Year Abroad Courses e.g. work place in business/industry; study at another University (abroad or in the UK)</p>					
S7 <i>note S7</i>		RELEVANT SUBJECT BENCHMARK STATEMENT(S) and details of how	Biosciences 2007			

	<p>the Programme Specification aligns with these</p>	<p>Generic standards, not specific to any particular area</p> <p>“5.6 All honours graduates in the biosciences would be expected to have achieved these standards at one of the two levels. Students achieving typical standards would, of course, also achieve the threshold.</p> <p>Threshold standard</p> <p>5.7 On graduating with an honours degree in biosciences, students should:</p> <ul style="list-style-type: none"> • be able to access bioscience information from a variety of sources and to communicate the principles in a manner appropriate to the programme of study • have ability in a range of practical bioscience techniques, including data collection, analysis and interpretation of those data, and testing of hypotheses • have an understanding of the explanation of biological phenomena at a variety of levels (from molecular to ecological systems) and be able to explain how • evolutionary theory is relevant to their area of study • be able to plan, execute and present an independent piece of hypothesis-driven work (eg a project) within a supported framework in which qualities such as time management, problem solving, and independence are evident • have some understanding of ethical issues and the impact on society of advances in the biosciences • be able to record data accurately, and to carry out basic manipulation of data (including qualitative data and some statistical analysis, when appropriate) • have developed basic strategies to enable them to update their knowledge of the biosciences. <p>Typical standard</p> <p>5.8 On graduating with an honours degree in biosciences, students should:</p> <ul style="list-style-type: none"> • be able to access and evaluate bioscience information from a variety of sources and to communicate the principles both orally and in writing (eg essays, laboratory reports) in a way that is well organised, topical and recognises the limits of current hypotheses • have ability in a broad range of appropriate practical techniques and skills relevant to the biosciences. This will
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		<p>include the ability to place the work in context and to suggest lines of further investigation 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</p> <ul style="list-style-type: none"> • 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 • be able to construct reasoned arguments to support their position on the ethical and social impact of advances in the biosciences be able to apply relevant advanced numerical skills (including statistical analysis, where appropriate) to biological data • have well-developed strategies for updating, maintaining and enhancing their knowledge of the biosciences.”
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S8 <i>note</i> S8	ENTRY REQUIREMENTS	https://www.uea.ac.uk/study/undergraduate/degree/detail/bsc-biological-sciences#requirements
S9	JACS Subject Level Code(s) Consult Planning Office	C100 C10C C104
S10	UCAS ADMISSION CODE / COURSE CODE Consult Planning Office	U1C100302 U2C100602 U1C10C402 U1C104402 U1C100V01 U18C91401
S11 <i>note</i> S11	FURTHER INFORMATION (web link to further information)	<p>https://www.uea.ac.uk/study/undergraduate/degree/detail/bsc-biological-sciences#course-overview</p> <p>http://www.uea.ac.uk/admissions/brochures/bio.ug.brochure.pdf</p> <p>Handbooks can be found here: https://www.uea.ac.uk/learningandteaching/students/gettingstarted/handbooks/undergraduate</p>

S12	COURSE HIGHLIGHTS (for publication in University Prospectus / Website /HEAR) Include succinct comments about employability, key skills and learning outcomes	
note S12	<p style="text-align: center;"><u>Biological Sciences with a Foundation Year</u></p> <p>Our Biological Sciences with a Foundation Year programme provides an exceptional opportunity to study for a degree in a range of Biological Science specialisations for students who do not have our traditional entry requirements.</p> <p>Applications for this course are welcomed from mature students, students who have previously not studied science but wish to take a new career direction, and students who have been disadvantaged during their secondary education. All applicants are considered on a case-by case basis and candidates may be invited to interview before being offered a place on the course.</p> <p><u>The Foundation Year</u></p> <p>During the Foundation Year students will be assigned an adviser from the School of Biological Sciences (BIO) who will provide academic support that will ensure your progression on to your degree course of choice. All students will study a combination of Biology, Chemistry and Mathematics modules which will be tailored to your previous experience. At the end of the Foundation Year successful students can transfer onto a specialist Biological Sciences degree course of their choice, or one of our Natural Sciences degrees, or they can choose to remain on the BSc in Biological Sciences.</p> <p>The Foundation Year offered in BIO is a full-time course taken over one year. The course does not require any previous AS or A2 level studies in any of the subjects taught although evidence of a good understanding of, and an interest in, biological topics is usually expected</p> <p>In the Foundation Year you will take modules worth 120 credits in total. These credits are obtained by passing the module assessments. Modules are assessed by a mixture of coursework and examination to produce an overall percentage grade and specific module marks. It is these marks, combined with the 120 credits that are taken into consideration that will determine your progression onto an Honours course.</p> <p>Full list of Biological Sciences degrees available</p> <p><u>Teaching and Assessment</u></p> <p>A typical teaching week consists of around 20-25 hours of timetabled study.</p> <p>This is taught with a combination of lectures, practical laboratory sessions and small-group tutorials and workshops, where you can discuss, in an informal setting, any points which were raised in lectures and find solutions to problem sheets distributed by tutors. You are also encouraged to discuss academic matters with tutors on a one-to-one basis.</p> <p>In the laboratory, you will carry out experiments, based on the subject matter of your lecture programme. These sessions are supervised by your lecturers and by</p>	

postgraduate student demonstrators, who will ensure the safe execution of the experiments and discuss the theory behind them.

Modules are assessed by a combination of coursework and examination. Marks from the Foundation Year do not count towards your final degree classification, but are important for transfers to other degree programmes.

BSc Biological Sciences

Our flagship BSc Biological Sciences course allows you to study a wide range of science subjects in the first year without prematurely committing yourself to any particular specialisation. The first year modules cover all the major areas of biology, alongside giving you a grounding in mathematics, statistics, computing, physics and chemistry. You will find the latter units especially valuable if you do not have A-levels in these subjects.

The flexibility of the programme encourages you to explore and pursue your own specialist interests within Biological Sciences as the course progresses. You will have the opportunity to select from more than 25 advanced optional modules that cover a diverse range of scientific subjects. You will also have the chance to apply your developing scientific interests through independent research, as you complete a substantial research project in your final year.

At the end of the first year you may, if you wish, transfer to one of our specialised programmes. Choosing to remain will not limit your module choices, as you will have access to any of the second year units offered across the school. In order to provide you with even more academic freedom, in both the second and third years you will also have a free choice module, allowing you to select from a huge range of units offered by the School of Biological Sciences and other Schools across the University.

Course Structure

This three-year degree programme enables you to begin studying in the first year without committing yourself to any particular specialisation. During the second and final years of study you can tailor your studies according to any areas of interest or your chosen specialism, alongside completing a substantial independent final year research project.

First year

The first year of the degree programme is designed to give you a thorough introduction to biological sciences, alongside other core elements relating to the study science and mathematics. You will also begin to develop the key scientific skills necessary for your further research projects.

Second Year

The second year allows you to develop your interests in specialist biological subjects, with a range of optional modules. There is also a free choice module that allows you to choose a topic from the entire course catalogue, subject to the approval of the Course Director and the desired school of study.

Final year

In your final year of study you have an even greater range of modules to choose from, focusing on specific biological issues ranging from molecular plant-microbe

interactions to cancer biology, alongside undertaking a substantial independent research project.

BSc Biological Sciences (with a Year Abroad)

Course Structure

This four-year degree programme enables you to begin studying in the first year without committing yourself to any particular specialisation. During the second and final years of study you can tailor your studies according to any areas of interest or your chosen specialism, alongside completing a substantial independent final year research project.

First year

The first year of the degree programme is designed to give you a thorough introduction to biological sciences, alongside other core elements relating to the study science and mathematics. You will also begin to develop the key scientific skills necessary for your further research projects.

Second Year

The second year allows you to develop your interests in specialist biological subjects, with a range of optional modules from Behavioural Ecology to Molecular Biology. There is also a free choice module that allows you to choose a topic from the entire course catalogue, subject to the approval of the desired school of study.

Third Year (Study abroad)

After maintaining a good standard of academic performance during your first two years, you will spend your third year studying at one of university exchange partners in Australasia, North America or Europe. We take into account your field of interest and placement preferences, and do our best to place you at the university of your choice. See the "Year Abroad" tab for more details.

Final year

In your final year of study you have an even greater range of modules to choose from, focusing on specific biological issues ranging from molecular plant-microbe interactions to cancer biology. You will also study more substantial modules such as Data Analysis, alongside undertaking a substantial independent research project.

BSc Biological Sciences (with a Year in Industry)

This four-year degree programme follows the structure of the BSc Biological Sciences, but gives you the opportunity to spend your third year on an industrial placement in the workplace. The opportunity to take part in a year in industry makes for an invaluable addition to your scientific knowledge and technique. It increases your employability and gives you the chance to put your first two years of biochemical learning into practise.

The course is designed to allow you to study a wide range of science subjects in the first year without prematurely committing yourself to any particular specialisation. The first year modules cover all the major areas of biology, alongside giving you a

	<p>grounding in mathematics, statistics, computing, physics and chemistry. You will find the latter units especially valuable if you do not have A-levels in these subjects.</p> <p>The flexibility of the programme encourages you to explore and pursue any developing specialist interests within Biological Sciences. You will have the opportunity to study subjects that interest you, selecting from more than 25 advanced optional modules, including Genomes, Genes and Genomics, Behavioural Ecology, Cancer Biology, Evolutionary Biology, and Conservation Genetics. Furthermore there is plenty of opportunity for independent research, with a substantial final year project.</p> <p><u>Course Structure</u></p> <p>This four-year degree programme enables you to take common first-year subjects without prematurely committing yourself to any particular specialisation. During the second and final years of study you can steer your degree programme towards your areas of interest or chosen specialism, alongside completing a substantial independent final year research project. Your third year of study will be spent on an industrial placement in the workplace.</p> <p><u>First year</u></p> <p>The first year of the degree programme is designed to give you a thorough introduction to biological sciences, alongside other core elements relating to the study science and mathematics. You will also begin to develop the key scientific skills necessary for your further research projects.</p> <p><u>Second Year</u></p> <p>The second year allows you to develop your interests in specialist biological subjects, with a range of optional modules ranging from Behavioural Ecology to Plant Biology. There is also a free choice module that allows you to choose a topic from the entire course catalogue, subject to the approval of the Course Director and the desired school of study.</p> <p><u>Third Year (Year in Industry)</u></p> <p>You will spend your third year on an industrial work placement lasting from a minimum of 30 weeks up to a maximum of approx..14 months, gaining relevant experience and developing your skills and knowledge. We have established research links throughout the UK and beyond, and we will help you in identifying and competing for appropriate positions.</p> <p><u>Final year</u></p> <p>In your final year of study you have an even greater range of modules to choose from, focusing on specific biological issues ranging from molecular plant-microbe interactions to cancer biology, alongside undertaking a substantial independent research project.</p>
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AC1	COURSE MANAGEMENT INFORMATION
AC1.1	REGULATORY FRAMEWORK

	Undergraduate Regulations (including Integrated Masters)				x
	Postgraduate Taught Regulations				
	Graduate Diplomas				
	PGCE				
AC1.2a	Is the course as a whole assessed on a pass/fail basis?	YES		NO	x
AC1.2b	Are any modules assessed on a pass/fail basis?	YES	x	NO	
AC1.2c	If so, how many modules and what is the credit volume for each module?				
	For Year in Industry and Year Abroad course, 120 credits assessed on pass/fail basis. Failure results in transfer to BSc without 'Year Out' acknowledgement for award/ transcript				

AC2 <i>note AC2.1</i>					
YEAR WEIGHTINGS AND PROGRESSION REQUIREMENTS (For undergraduate or integrated masters courses only)					
Please select only from the permitted options - see UG/PGT regulations					
Stage <i>Note AC2.2</i>	Level	Year of course	Weightings	Progression requirement	Exit Award <i>Note AC2.3</i>
Stage 0	Level 3	2016/17	0	40	None
Stage 1	Level 4	2016/17	0	40 (55 for Year Abroad)	Cert HE
Stage 2	Level 5	2016/17	40	40 (plus meet the requirement of the placement provider (normally an interview) 55 for Year Abroad)	Cert HE
Year Abroad / in Industry		2016/17	0	40 (plus meet the requirements of the placement provider (normally an interview))	DipHE
Stage 3	Level 6	2016/17	60	40	BSci
Stage M	Level 7				

AC3		BOARD OF EXAMINERS
AC3.4	EXTERNAL EXAMINERS (see web link below for names, positions and institutions of External Examiners)	
	(For Admin use only – to be added by LTS Web Administrator)	

PS1 COURSE PROFILE *For updates to Programme Specifications, copy and paste course profile from eVision*

note PS1

Course Profile for 2017/8

Course: Biological Sciences (U1C100302)

School: Biological Sciences

Director: Dr Andrew Chantry

Year 1U

Compulsory Modules (120 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-4001A	BIODIVERSITY	WW	20	SEM1	DD
BIO-4002B	EVOLUTION, BEHAVIOUR AND ECOLOGY	WW	20	SEM2	DD
BIO-4008Y	SKILLS FOR BIOLOGISTS	WW	20	YEAR	AA
BIO-4009Y	FOUNDATIONS FOR CHEMISTRY AND PHYSIOLOGY	CW	20	YEAR	E
BIO-4013Y	MOLECULES, GENES AND CELLS	WW	40	YEAR	BB

Year 2U

Options Range A

Students will select 40-120 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5002A	BIOCHEMISTRY	WW	20	SEM1	AA
BIO-5004A	HUMAN PHYSIOLOGY	WW	20	SEM1	DD

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5005B	CELL BIOLOGY	WW	20	SEM2	DD
BIO-5006A	PLANT BIOLOGY	WW	20	SEM1	BB
BIO-5008B	EVOLUTIONARY BIOLOGY	WW	20	SEM2	EE
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5015B	MICROBIOLOGY	WW	20	SEM2	BB

Options Range B

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5003B	MOLECULAR BIOLOGY	WW	20	SEM2	AA
BIO-5014B	COMMUNITY, ECOSYSTEM AND MACRO-ECOLOGY	WW	20	SEM2	AGJ

Options Range C

Students will select 0-40 credits: 20 in SEM1 and 20 in SEM2

Students will select 0-40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5009A	GENETICS	WW	20	SEM1	CC
BIO-5010B	BEHAVIOURAL ECOLOGY	WW	20	SEM2	CC
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)

Options Range D

Students must check that the module chosen from this range does not have a timetable clash with modules already selected, noting that no more than one module with the same timetable slot can be taken in one semester. Please note that if you would like to study a SCI module not listed below, please speak to the Course Director.

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5020K	CONSERVATION, ECOLOGY AND BIODIVERSITY IN THE TROPICS (FIELD COURSE)	CW	20	YEAR	U
ENV-5001A	AQUATIC ECOLOGY	WW	20	SEM1	AGJ
ENV-5012A	SOIL PROCESSES AND ENVIRONMENTAL ISSUES	WW	20	SEM1	DGJ
ENV-5014A	POPULATION ECOLOGY AND MANAGEMENT	WW	20	SEM1	CGJ
ENV-5022B	LOW CARBON ENERGY: SCIENCE AND TECHNOLOGY	CW	20	SEM2	AGJ
PPLB*	Any module beginning PPLB				

Year 3U

Students must take **BIO-6019Y** or **BIO-6023Y** or **BIO-6028Y** or **BIO-6022Y** (dependent on availability). Students may be moved from **BIO-6019Y** to **BIO-6023Y**, based on stage 2 results.

Compulsory Modules (40 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6019Y	RESEARCH PROJECT	PR	40	YEAR	U
BIO-6022Y	ECOLOGY RESEARCH PROJECT	PR	40	YEAR	U
BIO-6023Y	BIOLOGY RESEARCH SKILLS	PR	40	YEAR	U
BIO-6028Y	SCIENCE COMMUNICATION RESEARCH PROJECT	CP	40	YEAR	

Options Range A

Students cannot take **BIO-6004A** and **BIO-6012A** together. Students will select 0-60 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6004A	MICROBIAL BIOTECHNOLOGY	WW	20	SEM1	BGJ
BIO-6005B	MICROBIAL CELL BIOLOGY	WW	20	SEM2	BGJ
BIO-6006B	CELL BIOLOGY AND MECHANISMS OF DISEASE	WW	20	SEM2	BS
BIO-6009A	CANCER BIOLOGY	WW	20	SEM1	BGL
BIO-6012A	EMBRYO DEVELOPMENT AND STEM CELL BIOLOGY	WW	20	SEM1	BGJ

Options Range B

You cannot take BIO-6001A and BIO-6018Y together.
Students will select 0-80 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6001A	MOLECULAR ENZYMOLOGY IN BIOLOGY AND MEDICINE	WW	20	SEM1	CC
BIO-6003A	CELLULAR SIGNALLING	WW	20	SEM1	EUG
BIO-6010B	INFECTION AND IMMUNITY	WW	20	SEM2	DL
BIO-6011B	SOCIAL EVOLUTION	WW	20	SEM2	CGJ
BIO-6013A	GENOMES, GENES AND GENOMICS	WW	20	SEM1	DD
BIO-6018Y	SCIENCE COMMUNICATION	CW	20	YEAR	CC
BIO-6025B	PLANT BIOTECHNOLOGY FOR SUSTAINABLE FOOD PRODUCTION	WW	20	SEM2	EE

Options Range C

Note: BIO-6007B and BIO-6008B cannot be taken together.
Students will select 0-60 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6007B	MOLECULAR PLANT-MICROBE INTERACTIONS	WW	20	SEM2	AJL
BIO-6008B	EVOLUTIONARY BIOLOGY AND CONSERVATION GENETICS	WW	20	SEM2	AJL
BIO-6016A	HOST-PARASITE INTERACTIONS	WW	20	SEM1	AGJ
BIO-6017A	EVOLUTION IN HEALTH AND DISEASE	WW	20	SEM1	AJL

Options Range D

Students must check that the module chosen from this range does not have a timetable clash with modules already selected, noting that no more than one module with the same timetable slot can be taken in one semester. Note that no more than 20 credits of level 5 modules can be taken at Stage 3. Please note you are able to take other SCI modules, if you would like to do so please speak with your Course Director.

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)
CMP-5020B	PROGRAMMING FOR NON-SPECIALISTS	WW	20	SEM2	B3*E4,C5*C6
ENV-5008A	METEOROLOGY I	WW	20	SEM1	DGJ
ENV-6005A	BIOLOGICAL OCEANOGRAPHY AND MARINE ECOLOGY	CW	20	SEM1	BGJ
ENV-6006A	BIODIVERSITY CONSERVATION AND HUMAN SOCIETY	PR	20	SEM1	DD

Course Profile for 2017/8

Course: Biological Sciences (U2C100602)

School: Biological Sciences

Director: Dr Andrew Chantry

Year 1U

This is the first year of your Level 1 study.

Compulsory Modules (60 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-4001A	BIODIVERSITY	WW	20	SEM1	DD
BIO-4002B	EVOLUTION, BEHAVIOUR AND ECOLOGY	WW	20	SEM2	DD
BIO-4008Y	SKILLS FOR BIOLOGISTS	WW	20	YEAR	AA

Year 1U

This is the second year of your Level 1 study.

Compulsory Modules (60 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-4009Y	FOUNDATIONS FOR CHEMISTRY AND PHYSIOLOGY	CW	20	YEAR	E
BIO-4013Y	MOLECULES, GENES AND CELLS	WW	40	YEAR	BB

Year 2U

This is the first year of your Stage 2 study. You must complete 120 credits in total, at Stage 2, but no more than 80 credits in an academic year.

Options Range A

Students will select 0-80 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5002A	BIOCHEMISTRY	WW	20	SEM1	AA
BIO-5004A	HUMAN PHYSIOLOGY	WW	20	SEM1	DD
BIO-5005B	CELL BIOLOGY	WW	20	SEM2	DD
BIO-5006A	PLANT BIOLOGY	WW	20	SEM1	BB
BIO-5008B	EVOLUTIONARY BIOLOGY	WW	20	SEM2	EE
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5015B	MICROBIOLOGY	WW	20	SEM2	BB

Options Range B

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5003B	MOLECULAR BIOLOGY	WW	20	SEM2	AA
BIO-5014B	COMMUNITY, ECOSYSTEM AND MACRO-ECOLOGY	WW	20	SEM2	AGJ

Options Range C

Students will select 0-40 credits: 20 in SEM1 and 20 in SEM2

Students will select 0-40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5009A	GENETICS	WW	20	SEM1	CC
BIO-5010B	BEHAVIOURAL ECOLOGY	WW	20	SEM2	CC
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)

Year 2U

This is the second year of your Stage 2 study. You must complete 120 credits in total, at Stage 2, but no more than 80 credits in an academic year.

Options Range A

Students will select 0-80 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5002A	BIOCHEMISTRY	WW	20	SEM1	AA
BIO-5004A	HUMAN PHYSIOLOGY	WW	20	SEM1	DD
BIO-5005B	CELL BIOLOGY	WW	20	SEM2	DD
BIO-5006A	PLANT BIOLOGY	WW	20	SEM1	BB
BIO-5008B	EVOLUTIONARY BIOLOGY	WW	20	SEM2	EE
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5015B	MICROBIOLOGY	WW	20	SEM2	BB

Options Range B

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5003B	MOLECULAR BIOLOGY	WW	20	SEM2	AA
BIO-5014B	COMMUNITY, ECOSYSTEM AND MACRO-ECOLOGY	WW	20	SEM2	AGJ

Options Range C

Students will select 0-40 credits: 20 in SEM1 and 20 in SEM2

Students will select 0-40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5009A	GENETICS	WW	20	SEM1	CC
BIO-5010B	BEHAVIOURAL ECOLOGY	WW	20	SEM2	CC

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)

Options Range D

Students must check that the module chosen from this range does not have a timetable clash with modules already selected, noting that no more than one module with the same timetable slot can be taken in once semester. Please note that if you would like to study a SCI module not listed below, please speak to the Course Director.

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5020K	CONSERVATION, ECOLOGY AND BIODIVERSITY IN THE TROPICS (FIELD COURSE)	CW	20	YEAR	U
ENV-5001A	AQUATIC ECOLOGY	WW	20	SEM1	AGJ
ENV-5012A	SOIL PROCESSES AND ENVIRONMENTAL ISSUES	WW	20	SEM1	DGJ
ENV-5014A	POPULATION ECOLOGY AND MANAGEMENT	WW	20	SEM1	CGJ
ENV-5022B	LOW CARBON ENERGY: SCIENCE AND TECHNOLOGY	CW	20	SEM2	AGJ
PPLB*	Any module beginning PPLB				

Year 3U

This is the first year of your Stage 3 study. You must complete 120 credits in total, at Stage 3, but no more than 80 credits in an academic year.

Options Range A

Students cannot take BIO-6004A and BIO-6012A together.

Students will select 0-60 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6004A	MICROBIAL BIOTECHNOLOGY	WW	20	SEM1	BGJ

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6005B	MICROBIAL CELL BIOLOGY	WW	20	SEM2	BGJ
BIO-6006B	CELL BIOLOGY AND MECHANISMS OF DISEASE	WW	20	SEM2	BS
BIO-6009A	CANCER BIOLOGY	WW	20	SEM1	BGL
BIO-6012A	EMBRYO DEVELOPMENT AND STEM CELL BIOLOGY	WW	20	SEM1	BGJ

Options Range B

Note: You cannot take BIO-6001A and BIO-6018Y together.
Students will select 0-80 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6001A	MOLECULAR ENZYMOLOGY IN BIOLOGY AND MEDICINE	WW	20	SEM1	CC
BIO-6003A	CELLULAR SIGNALLING	WW	20	SEM1	EUG
BIO-6010B	INFECTION AND IMMUNITY	WW	20	SEM2	DL
BIO-6011B	SOCIAL EVOLUTION	WW	20	SEM2	CGJ
BIO-6013A	GENOMES, GENES AND GENOMICS	WW	20	SEM1	DD
BIO-6018Y	SCIENCE COMMUNICATION	CW	20	YEAR	CC
BIO-6025B	PLANT BIOTECHNOLOGY FOR SUSTAINABLE FOOD PRODUCTION	WW	20	SEM2	EE

Options Range C

You cannot take BIO-6007B and BIO-6008B together.
Students will select 0-40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6007B	MOLECULAR PLANT-MICROBE INTERACTIONS	WW	20	SEM2	AJL
BIO-6008B	EVOLUTIONARY BIOLOGY AND CONSERVATION GENETICS	WW	20	SEM2	AJL
BIO-6016A	HOST-PARASITE INTERACTIONS	WW	20	SEM1	AGJ
BIO-6017A	EVOLUTION IN HEALTH AND DISEASE	WW	20	SEM1	AJL

Options Range D

Students must check that the module chosen from this range does not have a timetable clash with modules already selected, noting that no more than one module with the same timetable slot can be taken in one semester. Note that no more than 20 credits of level 5 modules can be taken at Stage 3. Please note that if you would like to study a SCI module not listed below, please speak to the Course Director. Students will select 0-20 credits from the following modules:

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)
CMP-5020B	PROGRAMMING FOR NON-SPECIALISTS	WW	20	SEM2	B3*E4,C5*C6
ENV-5008A	METEOROLOGY I	WW	20	SEM1	DGJ
ENV-6005A	BIOLOGICAL OCEANOGRAPHY AND MARINE ECOLOGY	CW	20	SEM1	BGJ
ENV-6006A	BIODIVERSITY CONSERVATION AND HUMAN SOCIETY	PR	20	SEM1	DD
PPLB5*	Any module beginning PPLB5				

Year 3U

This is the second year of your Stage 3 study. You must complete 120 credits in total, at Stage 3, but no more than 80 credits in an academic year. Students must take BIO-6019Y, BIO-6023Y, BIO-6028Y, or BIO-6022Y (dependent on availability). Students may be moved from BIO-6019Y to BIO-6023Y, based on stage 2 results.

Compulsory Modules (40 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6019Y	RESEARCH PROJECT	PR	40	YEAR	U
BIO-6022Y	ECOLOGY RESEARCH PROJECT	PR	40	YEAR	U
BIO-6023Y	BIOLOGY RESEARCH SKILLS	PR	40	YEAR	U
BIO-6028Y	SCIENCE COMMUNICATION RESEARCH PROJECT	CP	40	YEAR	

Options Range A

Students cannot select BIO-6004A and BIO-6012A together
Students will select 0-60 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6004A	MICROBIAL BIOTECHNOLOGY	WW	20	SEM1	BGJ
BIO-6006B	CELL BIOLOGY AND MECHANISMS OF DISEASE	WW	20	SEM2	BS
BIO-6009A	CANCER BIOLOGY	WW	20	SEM1	BGL
BIO-6012A	EMBRYO DEVELOPMENT AND STEM CELL BIOLOGY	WW	20	SEM1	BGJ

Options Range B

Note that if selecting BIO-6018Y then other 'C' slot modules cannot be taken
Students will select 0-40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6001A	MOLECULAR ENZYMOLOGY IN BIOLOGY AND MEDICINE	WW	20	SEM1	CC

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6003A	CELLULAR SIGNALLING	WW	20	SEM1	EUG
BIO-6010B	INFECTION AND IMMUNITY	WW	20	SEM2	DL
BIO-6011B	SOCIAL EVOLUTION	WW	20	SEM2	CGJ
BIO-6013A	GENOMES, GENES AND GENOMICS	WW	20	SEM1	DD
BIO-6018Y	SCIENCE COMMUNICATION	CW	20	YEAR	CC
BIO-6025B	PLANT BIOTECHNOLOGY FOR SUSTAINABLE FOOD PRODUCTION	WW	20	SEM2	EE

Options Range C

Students will select 0-40 credits: 20 in SEM1 and 20 in SEM2

Students will select 0-40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6007B	MOLECULAR PLANT-MICROBE INTERACTIONS	WW	20	SEM2	AJL
BIO-6008B	EVOLUTIONARY BIOLOGY AND CONSERVATION GENETICS	WW	20	SEM2	AJL
BIO-6016A	HOST-PARASITE INTERACTIONS	WW	20	SEM1	AGJ
BIO-6017A	EVOLUTION IN HEALTH AND DISEASE	WW	20	SEM1	AJL

Course Profile for 2017/8

Course: Biological Sciences With A Year Abroad (U1C10C402)

School: Biological Sciences

Director: Dr Mette Mogensen

Year 1U

Compulsory Modules (120 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-4002B	EVOLUTION, BEHAVIOUR AND ECOLOGY	WW	20	SEM2	DD
BIO-4008Y	SKILLS FOR BIOLOGISTS	WW	20	YEAR	AA
BIO-4009Y	FOUNDATIONS FOR CHEMISTRY AND PHYSIOLOGY	CW	20	YEAR	E
BIO-4013Y	MOLECULES, GENES AND CELLS	WW	40	YEAR	BB
BIO-4001A	BIODIVERSITY	WW	20	SEM1	DD

Year 2U

Options Range A

Students will select 40-120 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5002A	BIOCHEMISTRY	WW	20	SEM1	AA
BIO-5004A	HUMAN PHYSIOLOGY	WW	20	SEM1	DD
BIO-5005B	CELL BIOLOGY	WW	20	SEM2	DD
BIO-5006A	PLANT BIOLOGY	WW	20	SEM1	BB
BIO-5008B	EVOLUTIONARY BIOLOGY	WW	20	SEM2	EE
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5015B	MICROBIOLOGY	WW	20	SEM2	BB

Options Range B

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5003B	MOLECULAR BIOLOGY	WW	20	SEM2	AA
BIO-5014B	COMMUNITY, ECOSYSTEM AND MACRO-ECOLOGY	WW	20	SEM2	AGJ

Options Range C

Students will select 0-40 credits, 20 in SEM1 and 20 in SEM2
Students will select 0-40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5009A	GENETICS	WW	20	SEM1	CC
BIO-5010B	BEHAVIOURAL ECOLOGY	WW	20	SEM2	CC
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)

Options Range D

Students must check that the module chosen from this range does not have a timetable clash with modules already selected, noting that no more than one module with the same timetable slot can be taken in one semester. Please note that if you would like to study a SCI module not listed below, please speak to the Course Director.

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5020K	CONSERVATION, ECOLOGY AND BIODIVERSITY IN THE TROPICS (FIELD COURSE)	CW	20	YEAR	U
ENV-5001A	AQUATIC ECOLOGY	WW	20	SEM1	AGJ
ENV-5012A	SOIL PROCESSES AND ENVIRONMENTAL ISSUES	WW	20	SEM1	DGJ
ENV-5014A	POPULATION ECOLOGY AND MANAGEMENT	WW	20	SEM1	CGJ

Module	Description	Assessment	Credits	Period	Sub-slot
ENV-5022B	LOW CARBON ENERGY: SCIENCE AND TECHNOLOGY	CW	20	SEM2	AGJ
PPLB*	Any module beginning PPLB				

Year YU

Students will be enrolled on EITHER BIO-5001Y OR BIO-5017Y OR BIO-5018Y depending on their chosen location of study during their Year Abroad.

Compulsory Modules (120 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5001Y	YEAR IN AUSTRALASIA	PR	120	YEAR	U
BIO-5017Y	YEAR IN EUROPE	PR	120	YEAR	U
BIO-5018Y	YEAR IN NORTH AMERICA	PR	120	YEAR	U

Year 3U

Students must take EITHER BIO-6019Y or BIO-6023Y or BIO-6028Y or BIO-6022Y (dependent of availability). Students may be moved from BIO-6019Y to BIO-6023Y, based on stage 2 results.

Compulsory Modules (40 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6019Y	RESEARCH PROJECT	PR	40	YEAR	U
BIO-6022Y	ECOLOGY RESEARCH PROJECT	PR	40	YEAR	U
BIO-6023Y	BIOLOGY RESEARCH SKILLS	PR	40	YEAR	U
BIO-6028Y	SCIENCE COMMUNICATION RESEARCH PROJECT	CP	40	YEAR	

Options Range A

Student cannot take BIO-6004A and BIO-6012A together.
Students will select 0-60 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6004A	MICROBIAL BIOTECHNOLOGY	WW	20	SEM1	BGJ
BIO-6005B	MICROBIAL CELL BIOLOGY	WW	20	SEM2	BGJ
BIO-6006B	CELL BIOLOGY AND MECHANISMS OF DISEASE	WW	20	SEM2	BS
BIO-6009A	CANCER BIOLOGY	WW	20	SEM1	BGL
BIO-6012A	EMBRYO DEVELOPMENT AND STEM CELL BIOLOGY	WW	20	SEM1	BGJ

Options Range B

Note: You cannot take BIO-6001A and BIO-6018Y together.
Students will select 0-80 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6001A	MOLECULAR ENZYMOLOGY IN BIOLOGY AND MEDICINE	WW	20	SEM1	CC
BIO-6003A	CELLULAR SIGNALLING	WW	20	SEM1	EUG
BIO-6010B	INFECTION AND IMMUNITY	WW	20	SEM2	DL
BIO-6011B	SOCIAL EVOLUTION	WW	20	SEM2	CGJ
BIO-6013A	GENOMES, GENES AND GENOMICS	WW	20	SEM1	DD
BIO-6018Y	SCIENCE COMMUNICATION	CW	20	YEAR	CC
BIO-6025B	PLANT BIOTECHNOLOGY FOR SUSTAINABLE FOOD PRODUCTION	WW	20	SEM2	EE

Options Range C

Note: BIO-6007B and BIO-6008B cannot be taken together.
Students will select 0-60 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6007B	MOLECULAR PLANT-MICROBE INTERACTIONS	WW	20	SEM2	AJL
BIO-6008B	EVOLUTIONARY BIOLOGY AND CONSERVATION GENETICS	WW	20	SEM2	AJL
BIO-6016A	HOST-PARASITE INTERACTIONS	WW	20	SEM1	AGJ
BIO-6017A	EVOLUTION IN HEALTH AND DISEASE	WW	20	SEM1	AJL

Options Range D

Students must check that the module chosen from this range does not have a timetable clash with modules already selected, noting that no more than one module with the same timetable slot can be taken in one semester. Note: that no more than 20 credits of level 5 modules can be taken at Stage 3. Please note you are able to take other SCI modules, if you would like to do so speak with the Course Director.

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)
CMP-5020B	PROGRAMMING FOR NON-SPECIALISTS	WW	20	SEM2	B3*E4,C5*C6
ENV-5008A	METEOROLOGY I	WW	20	SEM1	DGJ
ENV-6005A	BIOLOGICAL OCEANOGRAPHY AND MARINE ECOLOGY	CW	20	SEM1	BGJ
ENV-6006A	BIODIVERSITY CONSERVATION AND HUMAN SOCIETY	PR	20	SEM1	DD

Course Profile for 2017/8

Course: Biological Sciences With A Year In Industry (U1C104402)

School: Biological Sciences

Director: Professor Ian Clark

Year 1U

Compulsory Modules (120 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-4001A	BIODIVERSITY	WW	20	SEM1	DD
BIO-4002B	EVOLUTION, BEHAVIOUR AND ECOLOGY	WW	20	SEM2	DD
BIO-4008Y	SKILLS FOR BIOLOGISTS	WW	20	YEAR	AA
BIO-4009Y	FOUNDATIONS FOR CHEMISTRY AND PHYSIOLOGY	CW	20	YEAR	E
BIO-4013Y	MOLECULES, GENES AND CELLS	WW	40	YEAR	BB

Year 2U

Options Range A

Students will select 40-120 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5002A	BIOCHEMISTRY	WW	20	SEM1	AA
BIO-5004A	HUMAN PHYSIOLOGY	WW	20	SEM1	DD
BIO-5005B	CELL BIOLOGY	WW	20	SEM2	DD
BIO-5006A	PLANT BIOLOGY	WW	20	SEM1	BB
BIO-5008B	EVOLUTIONARY BIOLOGY	WW	20	SEM2	EE

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5015B	MICROBIOLOGY	WW	20	SEM2	BB

Options Range B

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5003B	MOLECULAR BIOLOGY	WW	20	SEM2	AA
BIO-5014B	COMMUNITY, ECOSYSTEM AND MACRO-ECOLOGY	WW	20	SEM2	AGJ

Options Range C

Students will select 0-40 credits: 20 in SEM1 and 20 in SEM2

Students will select 0-40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5009A	GENETICS	WW	20	SEM1	CC
BIO-5010B	BEHAVIOURAL ECOLOGY	WW	20	SEM2	CC
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)

Options Range D

Students must check that the module chosen from this range does not have a timetable clash with modules already selected, noting that no more than one module with the same timetable slot can be taken in one semester. Please note that if you would like to study a SCI/PPL module not listed below, please complete a Variation to Course Profile Form (at: www.uea.ac.uk/learningandteaching/students/forms) and speak to the Course Director before submitting your form to the Hub. To search for other modules you should use the 'Module Information' link, found in the 'Module Details' container on your eVision page.

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5020K	CONSERVATION, ECOLOGY AND BIODIVERSITY IN THE TROPICS (FIELD COURSE)	CW	20	YEAR	U

Module	Description	Assessment	Credits	Period	Sub-slot
ENV-5001A	AQUATIC ECOLOGY	WW	20	SEM1	AGJ
ENV-5012A	SOIL PROCESSES AND ENVIRONMENTAL ISSUES	WW	20	SEM1	DGJ
ENV-5014A	POPULATION ECOLOGY AND MANAGEMENT	WW	20	SEM1	CGJ
ENV-5022B	LOW CARBON ENERGY: SCIENCE AND TECHNOLOGY	CW	20	SEM2	AGJ
PPLB*	Any module beginning PPLB				

Year YU

Compulsory Modules (120 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6024X	YEAR IN INDUSTRY	CW	120	YEAR	U

Year 3U

Students must take EITHER BIO-6019Y or BIO-6023Y or BIO-6028Y or BIO-6022Y (dependent of availability). Students may be moved from BIO-6019Y to BIO-6023Y, based on stage 2 results.

Compulsory Modules (40 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6019Y	RESEARCH PROJECT	PR	40	YEAR	U
BIO-6022Y	ECOLOGY RESEARCH PROJECT	PR	40	YEAR	U
BIO-6023Y	BIOLOGY RESEARCH SKILLS	PR	40	YEAR	U
BIO-6028Y	SCIENCE COMMUNICATION RESEARCH PROJECT	CP	40	YEAR	

Options Range A

Student cannot take BIO-6004A and BIO-6012A together.
Students will select 0-60 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6004A	MICROBIAL BIOTECHNOLOGY	WW	20	SEM1	BGJ
BIO-6005B	MICROBIAL CELL BIOLOGY	WW	20	SEM2	BGJ
BIO-6006B	CELL BIOLOGY AND MECHANISMS OF DISEASE	WW	20	SEM2	BS
BIO-6009A	CANCER BIOLOGY	WW	20	SEM1	BGL
BIO-6012A	EMBRYO DEVELOPMENT AND STEM CELL BIOLOGY	WW	20	SEM1	BGJ

Options Range B

Note: you cannot take BIO-6001A and BIO-6008Y together. Students will select 0-80 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6001A	MOLECULAR ENZYMOLOGY IN BIOLOGY AND MEDICINE	WW	20	SEM1	CC
BIO-6003A	CELLULAR SIGNALLING	WW	20	SEM1	EUG
BIO-6010B	INFECTION AND IMMUNITY	WW	20	SEM2	DL
BIO-6011B	SOCIAL EVOLUTION	WW	20	SEM2	CGJ
BIO-6013A	GENOMES, GENES AND GENOMICS	WW	20	SEM1	DD
BIO-6018Y	SCIENCE COMMUNICATION	CW	20	YEAR	CC
BIO-6025B	PLANT BIOTECHNOLOGY FOR SUSTAINABLE FOOD PRODUCTION	WW	20	SEM2	EE

Options Range C

Note: BIO-6007B and BIO-6008B cannot be taken together. Students will select 0-60 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6007B	MOLECULAR PLANT-MICROBE INTERACTIONS	WW	20	SEM2	AJL
BIO-6008B	EVOLUTIONARY BIOLOGY AND CONSERVATION GENETICS	WW	20	SEM2	AJL
BIO-6016A	HOST-PARASITE INTERACTIONS	WW	20	SEM1	AGJ
BIO-6017A	EVOLUTION IN HEALTH AND DISEASE	WW	20	SEM1	AJL

Options Range D

Students must check that the module chosen from this range does not have a timetable clash with modules already selected, noting that no more than one module with the same timetable slot can be taken in one semester. Please note you are able to take other SCI modules, if you would like to do so speak with your Course Director.

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)
CMP-5020B	PROGRAMMING FOR NON-SPECIALISTS	WW	20	SEM2	B3*E4,C5*C6
ENV-5008A	METEOROLOGY I	WW	20	SEM1	DGJ
ENV-6005A	BIOLOGICAL OCEANOGRAPHY AND MARINE ECOLOGY	CW	20	SEM1	BGJ
ENV-6006A	BIODIVERSITY CONSERVATION AND HUMAN SOCIETY	PR	20	SEM1	DD
PPLB*	Any module beginning PPLB				

Course Profile for 2017/8

Course: Visiting Studies In Biological Sciences (Undergraduate) (U1C100V01)

School: Biological Sciences

Director: Dr Helen James

Year 1U

Students may select up to 120 credits over the year with not more than 80 credits in either semester. No more than 20 credits each semester can be taken outside BIO (to a total of 40 credits). Students registered for only one semester may select not more than 60 credits in that semester (with no more than 20 credits outside of BIO). Students wishing to do a Research Project (BIO-6019Y or BIO-6023Y) need to have made their choices by Friday Week 2 of the Autumn Semester. Priority will be given to students for whom the project is compulsory.

Free Choice

Students are required to select a further 120 credits, which may be from any Options Range referred to above or from the course catalogue with the approval of their School.

Course Profile for 2017/8

Course: Biological Sciences With A Foundation Year (U18C91401)

School: Biological Sciences

Director: Dr Kelly Edmunds

Year 0U

Compulsory Modules (60 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-3002A	INTRODUCTORY BIOLOGY	CW	20	SEM1	U
BIO-3001B	FURTHER BIOLOGY	WW	20	SEM2	U
CHE-3004A	INTRODUCTORY CHEMISTRY	CW	20	SEM1	U

Options Range A

Students will be assigned to the relevant mathematics modules based on their previous qualifications.

Students will select 20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
CHE-3005A	INTRODUCTORY MATHEMATICS FOR SCIENTISTS	CW	20	SEM1	U
MTHB3001A	BASIC MATHEMATICS I	CW	20	SEM1	A1, B7, D8, A2/B6/D3/D4

Options Range B

Students will have the option to select, based on their previous subjects of study, and subject to satisfactory progress on previous modules, 40 credits from the following modules:

Students will select 40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
CHE-3003B	FURTHER CHEMISTRY	CW	20	SEM2	U
CHE-3006B	FURTHER MATHEMATICS FOR SCIENTISTS	CW	20	SEM2	U
ENV-3001Y	ENVIRONMENTAL SCIENCES	CW	20	YEAR	CQQ (SEM1), AQQ+BQQ (SEM2)

Year 1U

Compulsory Modules (120 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-4001A	BIODIVERSITY	WW	20	SEM1	DD
BIO-4002B	EVOLUTION, BEHAVIOUR AND ECOLOGY	WW	20	SEM2	DD
BIO-4008Y	SKILLS FOR BIOLOGISTS	WW	20	YEAR	AA
BIO-4009Y	FOUNDATIONS FOR CHEMISTRY AND PHYSIOLOGY	CW	20	YEAR	E
BIO-4013Y	MOLECULES, GENES AND CELLS	WW	40	YEAR	BB

Year 2U

Options Range A

Students will select 40-120 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5002A	BIOCHEMISTRY	WW	20	SEM1	AA
BIO-5004A	HUMAN PHYSIOLOGY	WW	20	SEM1	DD
BIO-5005B	CELL BIOLOGY	WW	20	SEM2	DD
BIO-5006A	PLANT BIOLOGY	WW	20	SEM1	BB
BIO-5008B	EVOLUTIONARY BIOLOGY	WW	20	SEM2	EE
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5015B	MICROBIOLOGY	WW	20	SEM2	BB

Options Range B

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5003B	MOLECULAR BIOLOGY	WW	20	SEM2	AA
BIO-5014B	COMMUNITY, ECOSYSTEM AND MACRO-ECOLOGY	WW	20	SEM2	AGJ

Options Range C

Students will select 0-40 credits; 20 in SEM1 and 20 in SEM2

Students will select 0-40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5009A	GENETICS	WW	20	SEM1	CC
BIO-5010B	BEHAVIOURAL ECOLOGY	WW	20	SEM2	CC

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)

Options Range D

Students must check that the module chosen from this range does not have a timetable clash with modules already selected, noting that no more than one module with the timetable slot can be taken in once semester. Please note that if you would like to study a SCI module not listed below, please talk to the Course Director.

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5020K	CONSERVATION, ECOLOGY AND BIODIVERSITY IN THE TROPICS (FIELD COURSE)	CW	20	YEAR	U
ENV-5001A	AQUATIC ECOLOGY	WW	20	SEM1	AGJ
ENV-5012A	SOIL PROCESSES AND ENVIRONMENTAL ISSUES	WW	20	SEM1	DGJ
ENV-5014A	POPULATION ECOLOGY AND MANAGEMENT	WW	20	SEM1	CGJ
PPLB*	Any module beginning PPLB				

Year 3U

Students must take BIO-6019Y or BIO-6023Y. Students may be moved from BIO-6019Y to BIO-6023Y, based on stage 2 results.

Compulsory Modules (40 credits)

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6019Y	RESEARCH PROJECT	PR	40	YEAR	U
BIO-6023Y	BIOLOGY RESEARCH SKILLS	PR	40	YEAR	U

Options Range A

Students cannot take BIO-6004A and BIO-6012A together
Students will select 0-60 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6004A	MICROBIAL BIOTECHNOLOGY	WW	20	SEM1	BGJ
BIO-6006B	CELL BIOLOGY AND MECHANISMS OF DISEASE	WW	20	SEM2	BS
BIO-6009A	CANCER BIOLOGY	WW	20	SEM1	BGL
BIO-6012A	EMBRYO DEVELOPMENT AND STEM CELL BIOLOGY	WW	20	SEM1	BGJ

Options Range B

You cannot take BIO-6001A and BIO-6018Y together.
Students will select 0-80 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6001A	MOLECULAR ENZYMOLOGY IN BIOLOGY AND MEDICINE	WW	20	SEM1	CC
BIO-6003A	CELLULAR SIGNALLING	WW	20	SEM1	EUG
BIO-6010B	INFECTION AND IMMUNITY	WW	20	SEM2	DL
BIO-6011B	SOCIAL EVOLUTION	WW	20	SEM2	CGJ
BIO-6013A	GENOMES, GENES AND GENOMICS	WW	20	SEM1	DD
BIO-6018Y	SCIENCE COMMUNICATION	CW	20	YEAR	CC
BIO-6025B	PLANT BIOTECHNOLOGY FOR SUSTAINABLE FOOD PRODUCTION	WW	20	SEM2	EE

Options Range C

Note: BIO-6007B and BIO-6008B cannot be taken together.
Students will select 0-40 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-6007B	MOLECULAR PLANT-MICROBE INTERACTIONS	WW	20	SEM2	AJL
BIO-6008B	EVOLUTIONARY BIOLOGY AND CONSERVATION GENETICS	WW	20	SEM2	AJL
BIO-6016A	HOST-PARASITE INTERACTIONS	WW	20	SEM1	AGJ
BIO-6017A	EVOLUTION IN HEALTH AND DISEASE	WW	20	SEM1	AJL

Options Range D

Students must check that the module chosen from this range does not have a timetable clash with modules already selected, noting that no more than one module with the same timetable slot can be taken in one semester. Note no more than 20 credits of level 5 modules can be taken at stage 3. Please note you are able to take other SCI modules, if you would like to do so please speak with your Course Director.

Students will select 0-20 credits from the following modules:

Module	Description	Assessment	Credits	Period	Sub-slot
BIO-5012Y	BIOLOGY IN SOCIETY	CW	20	YEAR	Autumn: EE, Spring: C1, C2
BIO-5013A	FIELD ECOLOGY	PR	20	SEM1	C(CL)
CMP-5020B	PROGRAMMING FOR NON-SPECIALISTS	WW	20	SEM2	B3*E4,C5*C6
ENV-5008A	METEOROLOGY I	WW	20	SEM1	DGJ
ENV-6005A	BIOLOGICAL OCEANOGRAPHY AND MARINE ECOLOGY	CW	20	SEM1	BGJ
ENV-6006A	BIODIVERSITY CONSERVATION AND HUMAN SOCIETY	PR	20	SEM1	DD

PS2 MAPPING LEARNING OUTCOMES

note PS2

Mapping learning outcomes – please list learning outcomes and enter module code against assessment type Stage 0 (Foundation Year) - learning outcomes	Assessment type							
	Essay	Lab report	Course test	Exam	Project/ Dissertation/ Report	Oral Presentation	Assessment of practice	Other
An introduction to the key basic principles of biological topics, namely: <ul style="list-style-type: none"> - fundamentals of cell biology and biochemistry - fundamentals of biodiversity - fundamentals of evolution, behaviour and ecology - fundamentals of molecular biology and genetics - fundamentals of physiology 	BIO-0002A	BIO-0001B	BIO-0002A	BIO-0001B				BIO-0002A BIO-0001B
To begin to acquire core fundamental scientific skills <ul style="list-style-type: none"> - essay structure and writing - lab report writing - researching and referencing primary literature - critical thinking - scientific communication 	BIO-0002A	BIO-0001B CHE-0003B			ENV-4001Y			
To collect, interpret and present scientific data using appropriate scientific methods		BIO-0001B CHE-0003B			ENV-4001Y	ENV-4001Y		
An introduction to the key basic principles of physical, organic and inorganic chemistry		CHE-0003B		CHE-0003B				

An introduction to key Mathematical topics including algebra, trigonometry, calculus, graphs, probability and statistics			CHE-0005A MTHB0001A	CHE-0006B MTHB0002B				CHE-0006B CHE-0005A MTHB0001A MTHB0002B
An understanding of the breadth of environmental science topics and an understanding of the interdisciplinary nature of environmental science						ENV-4001Y		
To develop the ability and confidence to contribute to scientific discussions						BIO-0002A ENV-4001Y		

PS2 MAPPING LEARNING OUTCOMES

note PS2

Mapping learning outcomes – please list learning outcomes and enter module code against assessment type Stage 1 - learning outcomes	Assessment type							
	Essay	Lab report	Course test	Exam	Project/ Dissertation/ Report	Oral Presentation	Assessment of practice	Other
A broad introductory knowledge of biological sciences: <ul style="list-style-type: none"> - fundamentals of biodiversity - fundamentals of evolution, behaviour and ecology - fundamentals of molecular biology and genetics - fundamentals of cell biology and biochemistry - fundamentals of chemistry and physiology 		BIO-4001A BIO-4002B BIO-4013Y BIO-4009Y	4008Y BIO-4009Y	BIO-4001A BIO-4002B BIO-4013Y				BIO-4002B Workshop
To begin to acquire requisite scientific skills (non-practical) <ul style="list-style-type: none"> - statistical analysis and maths chemistry and physics			BIO-4008 BIO-4009Y					

To begin to acquire requisite scientific skills (laboratory/field based) - competence in methods/techniques and protocols - plan and execute scientific investigations		BIO-4001A BIO-4002B BIO-4013Y BIO-4009Y					BIO-4001A BIO-4013Y	BIO-4001A portfolio
To synthesise information using analysis of literature and collecting and/or analysing data	BIO-4008Y	BIO-4001A BIO-4002B BIO-4013Y		BIO-4001A BIO-4002B BIO-4013Y BIO-4008Y				BIO-4008Y (Poster)
To communicate the above (oral)	BIO-4008/10Y					BIO-4008Y		
To begin to appreciate the ethical issues and the impact and place of science in society	BIO-4008Y							

PS2 MAPPING LEARNING OUTCOMES - continued

note PS2

Mapping learning outcomes – please list learning outcomes and enter module code against assessment type Stage 2 - learning outcomes	Assessment type							
	Essay	Lab report	Course test	Exam	Project/ Dissertation/ Report	Oral Presentation	Assessment of practice	Other
To acquire a deeper knowledge and understanding of selected aspects of biology	BIO-5004A, BIO-5005B BIO-5006A, BIO-5009A BIO-5014B, BIO-5012Y	BIO-5002A, BIO-5003B BIO-5004A, BIO-5005B BIO-5006A, BIO-5009A BIO-5014B, BIO-5015B		BIO-5002A, BIO-5003B BIO-5004A, BIO-5005B BIO-5006A, BIO-5008B BIO-5009A, BIO-5014B BIO-5015B, BIO-5010B	BIO-5008B BIO-5010B BIO-5012Y BIO-5013A BIO-5019Y	BIO-5010B BIO-5012Y BIO-5019Y	BIO-5019Y	BIO-5002A Poster BIO-5013A Taxonomy
Identifying and understanding how various aspects of biology are applied to biological issues and concerns	BIO-5004A, BIO-5005B BIO-5006A, BIO-5009A BIO-5014B, BIO-5012Y	BIO-5014B		BIO-5002A, BIO-5003B BIO-5004A, BIO-5005B BIO-5006A, BIO-5008B BIO-5009A, BIO-5014B BIO-5015B	BIO-5010B BIO-5019Y	BIO-5004A BIO-5005B BIO-5010B BIO-5012Y BIO-5019Y	BIO-5019Y	BIO-5002A Poster BIO-5013A Taxonomy

To begin to develop critical analytical skills; to be able to test theories and concepts	BIO-5004A, BIO-5005B BIO-5006A, BIO-5009A BIO-5014B, BIO-5012Y	BIO-5002A, BIO-5003B BIO-5004A, BIO-5009A		BIO-5009A				
To develop the skills to critically review and evaluate scientific literature	BIO-5004A BIO-5005B BIO-5009A	BIO-5004A, BIO-5005B BIO-5006A, BIO-5009A BIO-5002A, BIO-5003B		BIO-5002A, BIO-5003B BIO-5004A, BIO-5005B BIO-5006A, BIO-5009A				BIO-5003B Problem Solving
To apply and develop requisite scientific skills		BIO-5002A, BIO-5003B BIO-5004A, BIO-5005B BIO-5006A, BIO-5009A		BIO-5002A, BIO-5003B BIO-5004A, BIO-5005B BIO-5009A		BIO-5004A BIO-5005B		BIO-5002A portfolio
To synthesise information using analysis of literature and collecting and/or analysing data	BIO-5004A, BIO-5005B BIO-5006A	BIO-5002A, BIO-5003B BIO-5004A, BIO-5005B BIO-5006A, BIO-5009A		BIO-5002A, BIO-5003B BIO-5004A, BIO-5006A BIO-5009A		BIO-5004A BIO-5005B		
To communicate the above (written and oral)		BIO-5002A, BIO-5003B BIO-5004A, BIO-5005B BIO-5006A BIO-5009A BIO-5015B		BIO-5002A BIO-5003B	BIO-5012Y BIO-5010B	BIO-5004A BIO-5005B BIO-5010B		
To appreciate specific ethical issues and the impact and place of science in society	BIO-5004A, BIO-5005B BIO-5006A, BIO-5009A BIO-5015B, BIO-5012Y			BIO-5019Y BIO-5010B		BIO-5019Y		BIO-5019Y porfolio
To broaden knowledge/experience, not necessarily associated with biology (defined choice)								

<p>Cell Biology ONLY: A deeper knowledge and understanding of selected aspects of cell biology and related diseases incorporating the molecular organisation of cells, the regulation of dynamic cellular changes, and an analysis of the experimental techniques currently employed in the study of modern cell biology.</p>	<p>BIO-5005B</p>	<p>BIO-5003B BIO-5005B</p>	<p>BIO-5003B BIO-5005B</p>	<p>BIO-5005B</p>	
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PS2 MAPPING LEARNING OUTCOMES - continued

note PS2

<p>Mapping learning outcomes – please list learning outcomes and enter module code against assessment type Year abroad/ in industry - learning outcomes</p>	<p>Assessment type</p>							
	<p>Essay</p>	<p>Lab report</p>	<p>Course test</p>	<p>Exam</p>	<p>Project/ Dissertation/ Report</p>	<p>Oral Presentation</p>	<p>Assessment of practice</p>	<p>Other</p>
<p>Year Abroad To acquire a deeper (broader) knowledge and understanding of selected aspects of biology (different to those gained in stage 2)</p>								<p>BIO-5017Y BIO-5001Y BIO-5018Y Assessment defined by host institution)</p>
<p>For Year In Europe: You may gain the ability to converse, write and practice science in a foreign language (eg French, German, Spanish), at a level appropriate to their experience, but at some Universities such as Sweden and the Netherlands the modules will be taught in English.</p>								<p>BIO-5017Y (assessment defined by host institution)</p>

Year in Industry - An appreciation of industrial biology which may include the management, performance and legal (patent) issues surrounding industry projects					BIO-5007Y	BIO-5007Y		
Other: please give details								

Mapping learning outcomes – please list learning outcomes and enter module code against assessment type Stage 3 - learning outcomes	Assessment type							
	Essay	Lab report	Course test	Exam	Project/ Dissertation/ Report	Oral Presentation	Assessment of practice	Other
To further acquire a deeper knowledge and understanding of selected aspects of biology (with progression from Stage 2 [many modules have pre-requisites])	BIO-6001A, BIO-6002B BIO-6003A, BIO-6005B, BIO-6007B, BIO-6008B, BIO-6009A, BIO-6010B, BIO-6011B, BIO-6012A, BIO-6013A, BIO-6014B, BIO-6017A, BIO-6016A, BIO-6025B, BIO-6018Y	BIO-6001A BIO-6002B BIO-6012A BIO-6013A BIO-6016A	BIO-6014B	BIO-6001A, BIO-6002B BIO-6003A, BIO-6005B BIO-6007B, BIO-6008B, BIO-6009A, BIO-6010B, BIO-6011B, BIO-6012A, BIO-6013A, BIO-6014B, BIO-6017A, BIO-6016A, BIO-6004A, BIO-6025B	BIO-6003A BIO-6019Y BIO-6022Y BIO-6023Y BIO-6028Y	BIO-6005B BIO-6007B BIO-6008B BIO-6009A BIO-6017A BIO-6019Y BIO-6023Y	BIO-6016A BIO-6019Y BIO-6023Y	
To further develop the skills to critically review and evaluate scientific literature	BIO-6001A, BIO-6005B BIO-6007B, BIO-6008B, BIO-6009A, BIO-6002B, BIO-6003A, BIO-6010B, BIO-6011B, BIO-6012A, BIO-6013A BIO-6014B, BIO-6017A BIO-6016A, BIO-6025B	BIO-6001A BIO-6002B BIO-6013A BIO-6013A BIO-6016A		BIO-6001A, BIO-6002B BIO-6003A, BIO-6005B BIO-6007B, BIO-6008B, BIO-6009A, BIO-6010B, BIO-6011B, BIO-6012A, BIO-6013A, BIO-6014B, BIO-6017A, BIO-6016A, BIO-6004A, BIO-6025B	BIO-6003A BIO-6019Y BIO-6022Y BIO-6023Y BIO-6028Y	BIO-6019Y BIO-6023Y		
To apply and develop requisite scientific skills; to frame and test hypotheses (applying quantitative and reasoning skills); to demonstrate competence in methods, techniques and protocols		BIO-6001A BIO-6002B BIO-6013A BIO-6013A BIO-6016A		BIO-6001A, BIO-6002B BIO-6003A, BIO-6005B BIO-6007B, BIO-6008B, BIO-6009A, BIO-6010B, BIO-6011B, BIO-6012A, BIO-6013A, BIO-6014B, BIO-6017A, BIO-6016A, BIO-6004A, BIO-6025B	BIO-6019Y BIO-6022Y BIO-6023Y BIO-6028Y	BIO-6019Y BIO-6023Y		
To synthesise and critically evaluate information using analysis of literature and collecting and/or analysing data	BIO-6001A, BIO-6002B BIO-6003A, BIO-6005B BIO-6010B, BIO-6011B, BIO-6013A, BIO-6014B, BIO-6017A, BIO-6016A, BIO-6025B	BIO-6001A BIO-6002B BIO-6013A		BIO-6001A, BIO-6002B BIO-6003A, BIO-6005B BIO-6007B, BIO-6008B, BIO-6009A, BIO-6010B, BIO-6011B, BIO-6012A, BIO-6013A, BIO-6014B, BIO-6017A, BIO-6016A, BIO-6004A, BIO-6025B				

To communicate the above (written and oral)	BIO-6001A, BIO-6002B BIO-6003A, BIO-6005B BIO-6010B, BIO-6011B, BIO-6014B, BIO-6017A, BIO-6016A	BIO-6001A BIO-6002B BIO-6013A BIO-6016A		BIO-6001A, BIO-6002B BIO-6003A, BIO-6005B BIO-6011B, BIO-6013A, BIO-6013A, BIO-6014B, BIO-6017A, BIO-6016A, BIO-6004A	BIO-6013A BIO-6019Y BIO-6022Y BIO-6023Y BIO-6028Y	BIO-6016A BIO-6004A BIO-6008B BIO-6009A BIO-6019Y BIO-6023Y		
To appreciate specific ethical issues and the impact and place of science in society	BIO-6001A, BIO-6002B BIO-6003A, BIO-6010B BIO-6011B, BIO-6013A BIO-6014B				BIO-6016A			
To broaden knowledge/experience, not necessarily associated with biology (defined choice)								
Science Communication ONLY: To give the students experience of working as a science communicator in schools, Museums or Science Centres and to develop a better understanding of communication practices.	BIO-6018Y				BIO-6018Y			BIO-6018Y (event)
Cell Biology ONLY: A deeper knowledge and understanding of selected aspects of cell biology and related diseases incorporating the molecular organisation of cells, the regulation of dynamic cellular changes, and an analysis of the experimental techniques currently employed in the study of modern cell biology.				BIO-6006B	BIO-6019Y BIO-6020Y	BIO-6019Y BIO-6020Y	BIO-6006B BIO-6020Y	BIO-6006B BIO-6019Y

PS3 PROGRAMME COHERENCE AND FEEDBACK CYCLES		<i>note PS3</i>
PS3.1 learning progression		
How will progression in terms of skills, knowledge and understanding be reflected in the programme between modules in any one year and across the years as students progress through their course of study?		<i>note PS3.1</i>
<p>Those students who enter the School of Biological Sciences through the Foundation Year programme must achieve the minimum 40% pass mark across 120 credits in order to progress on to the C100 Biological Sciences course. If those students wish to progress to an alternative degree programme, there are transfer criteria which they must meet, these criteria are course-specific and details are given in the Foundation Year student handbook.</p> <p>In terms of overall curriculum design, content and organisation, there is broad coverage throughout the course of biodiversity, evolution, behavior, ecology, molecular biology and genetics, cell biology and biochemistry. The 1st year has two key generic skills-based modules that are in part based on a small group- teaching format combined with lectures/workshops. The main aims of the 2nd/3rd year modules are to gain a deeper knowledge and understanding of selected aspects of biology. Clearly, the specific programme will depend on the individual's choice of modules. Emphasis is on progression and there is increasing discussion of contributions to biology from research, as well as increasing use of scientific journals and primary research papers.</p> <p>Current BIM (Bachelors and Integrated Masters) regulations require students to pass all modules (with at least 40%).</p>		<i>note PS3.1</i>
PS3.2 feedback cycle		
Please explain how assessments and feedback / feed forward support the coherence of the programme. Comment on number and types of assessment, both formative and summative; the types and format of feedback students will receive; and their sequencing. How will assessments and feedback impact on subsequent modules?		<i>note PS3.2</i>

Reflecting the range of learning outcomes, the School uses a number of assessment methods: formal examinations, project reports, course tests, practical and fieldwork reports, poster and oral presentations, essays and worksheets. Current assessment at all levels is summarised as follows;

Level 1/4: 50% Coursework, 50% Examination (exceptions: seminar-based Modules, BIO-4008Y Skills for Biologists, 40% Coursework and 60% Course Tests; BIO-4009Y Foundations for Chemistry and Physiology, 100% Coursework). Foundations in Biology and Further Biology (BIO-0002A and BIO-0001B) 30% Coursework and 70% Examination/CourseTest

Level 2: 40% Coursework, 60% Examination (exceptions: BIO-5013A Field Ecology and BIO- 5012Y Biology in Society which are 100% coursework).

Level 3: 40% Coursework, 60% Examination (exceptions: BIO-6018Y Science Communication, 100% coursework; all project-based Modules which are 100% coursework).

Further developments have resulted in the removal of course tests from all year 2 and year 3 modules. The new BIM regulations place a greater emphasis on the formative- summative cycle of assessment and feedback and all 1st/2nd year modules have introduced formative coursework, and this is gradually being incorporated into all 3rd Year modules. Further review of assessment patterns for BIO modules is ongoing, and through the newly introduced Annual Review of Assessment & Moderation Meeting involving the BIO Director of Teaching, Course Directors and LTS staff.

During the two biology modules studied by the Foundation Year students during their Level 3 studies, the students complete one formative lab report prior to their summative report, one formative written assignment prior to the summative assignment and a set of weekly online quizzes for each of the two modules, the first quiz of each is formative and the correct answers and feedback are available after the submission date of each quiz.

PS4	EXAMINATIONS	<i>note PS4</i>	
		Written	Practical (e.g. OSCES and OSPES)
How many modules will include an exam element?			
How many hours of exams are there in Stage 0? (if applicable)	12 (including 6 hours of final exams and 6 hours of week 12 course tests)		N/A
How many hours of exams are there in Stage 1?	16 hours in total (6hours examination, 2hours summative Course test for 4013Y, 5hours summative Course Test in 4008Y, 3 hours summative Course Test in 4001A)		N/A
How many hours of exams are there in Stage 2?	6-12		N/A
How many hours of exams are there in Stage 3?	6-18		N/A
How many hours of exams are there in Stage 4? (if applicable)			
How many hours of exams are there in Stage 5? (if applicable)			
How many hours does the programme (as a whole) include?	22-52		N/A

PS5	EQUALITY & WIDENING PARTICIPATION	<i>note PS5</i>	
PS5.1	How do the admissions criteria specifically for this course ensure equality of opportunity for all applicants?		
	<p>The Biological Sciences with a Foundation Year provides the main route for ensuring widening participation at admissions stage. All applicants must meet at least one of the following criteria:</p> <ul style="list-style-type: none"> – They have been out of full-time education for at least three years prior to your application – They have not previously studied more than one science (Chemistry, Biology, Physics or Mathematics) at A level or equivalent – They have been in Local Authority Care – They have previously studied science but fewer than 60 per cent of students at your secondary school achieved five or more grade A*-C GCSEs (or equivalent) including English and Mathematics in 2013 – Data from Department of Education website: www.education.gov.uk/schools/performance. 		
PS5.2	What steps have been taken to ensure an inclusive curriculum?		

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We aim to ensure an inclusive curriculum through our current Advisor-based system and offering other university-wide pastoral support through the Dean of Students Office (DoS) and Student Union. These processes are also continually monitored through specific questions raised during Annual and Quinquennial Course Review in which we collate data on age, gender, disabilities and ethnicity balance in our degree programmes.

In the current adviser system, students are allocated a member of academic staff as their Adviser. The Adviser is the first point of contact for students in matters relating to academic work and course of study. The Adviser also offers help and guidance if students find that they are experiencing any difficulties, and can also offer advice if a student is experiencing circumstances that may have affected their performance. Students are offered the opportunity to meet with their Adviser at least three times per academic year, and Advisers are available to meet students in their office at an allocated 2 hour time-slot every week, alternatively many Advisers operate an open door policy. The availability of Advisers is clearly displayed on notice boards outside individual offices as well as on central notice boards. Senior and Deputy Senior Advisers are on hand as alternatives if necessary.

There are a number of other sources of support. The Dean of Students' Office offers wide-ranging advice and guidance to any student who is experiencing difficulties or who wishes to make the most of the opportunities available to them at UEA. It can help with numerous concerns including money matters, accommodation problems, disability including dyslexia and mental health issues. The Counselling Service offers a confidential service providing support and counselling to any student encountering difficulties whilst at UEA. The Union Advice Centre provides independent information, advice and support on a range of issues including academic appeals/complaints, legal issues, health, financial problems, employment and housing.

The School has a Disability Liaison Officer to help with any student with particular needs, to facilitate their access of teaching material and in particular laboratory work. Specific actions we take include:

1. Lecture notes on BB ahead of classes – allows students with SpLDs to access the material before lectures. Also help students who are primary carers (parents etc) who may not be able to get to some classes. [A few people are now placing recordings of their lectures online].
2. We try not to schedule classes after 6pm (although this is becoming more difficult) again to help parents/those with caring responsibilities.
3. Take account of student needs – DOS reports are paid attention to, and we respond to individual needs (allow students to record lectures etc).
4. Accessible labs – flexible/adjustable bench in the George Duncan Lab to suit different wheel chair heights; flexible lighting (epilepsy and other medical conditions)
5. Medical needs taken care of (Insulin doses kept in fridge for example)
6. Active policy of referring students to DOS LET if required (non-native speakers, maths, other study skills)
7. Extra drop-in sessions available in 1st year to provide support for students with different educational backgrounds (and/or different qualifications) to allow them to access our curriculum

	<p>8. The 1st year skills modules help provide students from a variety of different educational backgrounds (including mature students returning to study) the skills to succeed in their degree.</p> <p>9. Active advisers</p> <p>10. Some modules facilitate students with other commitments – e.g. BIO-6023Y with group work allows students (part time, other commitments (parent/carers etc) to not be present the whole time but still to participate.</p> <p>11. Two hour lecture slots – give a rest break (10 minutes) in the middle</p> <p>12. A wide variety of teaching approaches (lectures, seminars, workshops, labs, field trips, projects etc) to cater for a variety of learning styles</p> <p>13. A wide variety of assessment types both formative and summative (essays, lab reports, workshop/seminar questions, CTs, group work, talks etc) to cater for a variety of learning styles</p>
PS5.3	<p>In what ways do learning and teaching and assessment methods ensure inclusivity, reasonable adjustment and equality of opportunity?</p> <p>Students have always been encouraged to report ECs to the Faculty/Hub Teaching Office. These ECs (and the related evidence such as medical certificates) are often used to support extension to coursework deadline requests. Recently, and up to 2012/2013, Teaching Office or Hub colleagues consider the more straightforward requests, with more complicated cases being considered by the Coursework Coordinator (an academic member of BIO Faculty). Since 2013/2014, such complex or non-standard requests have been considered by the School's EC Panel membership. In addition, LTS introduced the possibility of students submitting a 'self-certification' extension request once a semester, and this request does not require third party evidence.</p>

PS6	EMPLOYABILITY	<i>note PS6</i>
	How is employability embedded into the delivery of the course?	

Led by the BIO Director of Employability, it has been decided that rather than offer an optional Employability module that will be taken by only a small proportion of students it will be more effective to enhance focus on the development of employability skills within the main curriculum, complementing that where possible with specific extracurricular activities. As a first step toward this the School has identified a lack of awareness among students of the skills that they acquire in the course of their studies. A structured skills audit, requiring Module Organisers to identify the different types of skills, both specialist and transferable, intellectual and practical, that are developed by participation in their modules, has therefore been completed and the results of this will be made available to students as a tool to support their personal and professional development. From 2014/2015, Module Organisers have also embedded Case Studies of applied knowledge and alumnus career development in summary to a lecture series. This will be complemented by changes to the course evaluation mechanism to include questions relating to careers and employability. In addition, the recently introduced Annual Course Review process explicitly considers student feedback on employability skills and module learning outcomes in order to inform course management and development.

KEY INFORMATION SET (KIS) DATA

SCI BIO Biological Sciences with a Foundation Year UNU18C91401

KIS		KEY INFORMATION SET data (undergraduate courses only)						<i>Note KIS</i>
KIS1		Quantitative KIS data						<i>Note KIS1</i>
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	
1.1	Percentage of assessment by written exams	62						
1.2	Percentage of assessment by practical exams	0						
1.3	Percentage of assessment by coursework	38						
1.4	Percentage of time in scheduled learning and teaching activities	33						
1.5	Percentage of time in guided independent study	67						
1.6	Percentage of time on placements	0						
KIS2		Professional Accreditation						<i>Note KIS2</i>
2.1		Name of accrediting body (if applicable)						
2.2		Please give details, including any memberships, exemptions etc that the award confers. Please also give accrediting body website URL.						
2.3		Is the accreditation dependent on specific module choices? If so, please include URL of web pages where these details are outlined.						

SCI BIO Biological Sciences UNU1C100302

KIS		KEY INFORMATION SET data (undergraduate courses only)						<i>Note KIS</i>
KIS1		Quantitative KIS data						<i>Note KIS1</i>
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	
1.1	Percentage of assessment by written exams		62	60	40			
1.2	Percentage of assessment by practical exams		0	0	0			
1.3	Percentage of assessment by coursework		38	40	60			
1.4	Percentage of time in scheduled learning and teaching activities		30	27	14			
1.5	Percentage of time in guided independent study		70	73	86			
1.6	Percentage of time on placements		0	0	0			
KIS2		Professional Accreditation						<i>Note KIS2</i>
2.1		Name of accrediting body (if applicable)						
2.2		Please give details, including any memberships, exemptions etc that the award confers. Please also give accrediting body website URL.						
2.3		Is the accreditation dependent on specific module choices? If so, please include URL of web pages where these details are outlined.						

SCI BIO Biological Sciences with a Year Abroad UNU1C10C402

KIS		KEY INFORMATION SET data (undergraduate courses only)						<i>Note KIS</i>
KIS1		Quantitative KIS data						<i>Note KIS1</i>
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	
1.1	Percentage of assessment by written exams		62	60	0	40		
1.2	Percentage of assessment by practical exams		0	0	0	0		
1.3	Percentage of assessment by coursework		38	40	100	60		
1.4	Percentage of time in scheduled learning and teaching activities		30	27	0	17		
1.5	Percentage of time in guided independent study		70	73	0	0		
1.6	Percentage of time on placements		0	0	100	83		
KIS2		Professional Accreditation						<i>Note KIS2</i>
2.1		Name of accrediting body (if applicable)						
2.2		Please give details, including any memberships, exemptions etc that the award confers. Please also give accrediting body website URL.						
2.3		Is the accreditation dependent on specific module choices? If so, please include URL of web pages where these details are outlined.						

SCI BIO Biological Sciences with a Year in Industry UNU1C104402

KIS		KEY INFORMATION SET data (undergraduate courses only)						<i>Note KIS</i>
KIS1		Quantitative KIS data						<i>Note KIS1</i>
		Year 0	Year 1	Year 2	Year 3	Year 4	Year 5	
1.1	Percentage of assessment by written exams		62	60	0	40		
1.2	Percentage of assessment by practical exams		0	0	0	0		
1.3	Percentage of assessment by coursework		38	40	100	60		
1.4	Percentage of time in scheduled learning and teaching activities		30	28	0	17		
1.5	Percentage of time in guided independent study		70	72	0	83		
1.6	Percentage of time on placements		0	0	100	0		
KIS2		Professional Accreditation						<i>Note KIS2</i>
2.1		Name of accrediting body (if applicable)						
		Society of Biology accreditation for Year-in-Industry Course						
2.2		Please give details, including any memberships, exemptions etc that the award confers. Please also give accrediting body website URL.						
2.3		Is the accreditation dependent on specific module choices? If so, please include URL of web pages where these details are outlined.						

UP1 Programme Specification Update Record						
Faculty	SCI		School		BIO	
Academic Year	2014/5	2015/6	2016/7	2017/8	2018/9	2019/0
Degree Award (e.g. BSc/MA)		BSci				
Course Title(s)		Biological Sciences Biological Sciences with a Year in Industry Biological Sciences with a Year Abroad Biological Sciences with a Foundation Year				
Course Code(s)		U1C100302 U2C100602 U1C10C402 U1C104402 U18C91401 U1C100V01				
Has the KIS data been changed?	Yes/No					
Course Director sign off	Name	Heather Felgate Andrew Chantry				
	Date	27/02/2017 09/03/2017				

IM1 IMPLEMENTATION ACTIONS – ADMIN USE ONLY		
ACTION	DATE	Name
Course Profile updated in Evison (LTS Team Leader)	10 th February 2017	
Programme Specification placed in shared drive folder (LTS Team Leader)	09 th March 2017	Krissie
Web link to External Examiner information added (LTS Web Administrator)		
Programme Specification uploaded onto website (LTS Web Administrator)		
Planning Office informed of upload of Programme Specification onto website (copy of this page to cams.records@uea.ac.uk) (LTS Web Administrator)		
Programme Specification Code (LTS Team Leader) (SCH/YEAR/Level/Sequence)		
Full route code(s) covered by this Programme Specification (LTS Team Leader)		

