BSc Ecology and Environmental Biology

This document provides a definitive record of the main features of the programme and the learning outcomes that a typical student may reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities provided. This programme specification is intended as a reference point for prospective students, current students, external examiners and academic and support staff involved in delivering the programme and enabling student development and achievement.

Programme Information				
Programme Title	Ecology and Environmental Biology			
Award(s)	BSc			
Associateship	Associateship of the Royal College of Science (ARCS)			
Programme code	C180			
Awarding Institution	Imperial College London			
Teaching Institution	Imperial College London			
Faculty	Faculty of Natural Sciences			
Department	Department of Life Sciences			
Mode and Period of Study	3 academic years full-time			
Cohort Entry Points	Annually in October			
Relevant QAA Benchmark Statement(s) and/or other external reference points	Biosciences			
Total Credits	ECTS:	180	CATS:	360
FHEQ Level	Level 6			
EHEA Level	1st cycle			
External Accreditor(s)	None			
Specification Details				
Student cohorts covered by specification	2016/17 entry			
Person responsible for the specification	Dr Huw Williams			
Date of introduction of programme				
Date of programme specification/revision	August 2017			

Programme Overview

All students on the Biological Sciences programmes follow the same core modules in the first year of study.

As the years progress, you will begin to specialise further according to your chosen degree programme or individual optional module choices.

All students have the opportunity to attend field courses, including the popular African Biology Field Course which takes place in South Africa.

The first year course covers the basic core areas of biology. In the first term, there are also classes in key scientific skills such as information retrieval, literature referencing, and statistics.

In the second and third years, we organise courses for those who wish to study for the flexible, broadly based suite of degrees in biology and specialisms in ecology and environmental biology and microbiology.

To encourage a wider outlook, in the second year you will be asked to choose one of the humanities courses delivered by the Centre for Languages, Culture and Communication, which includes a wide range of language options; or you can choose a management course in Imperial College Business School.

The last term of the final year is devoted to a full-time individual research project. Your project is often the most exciting and rewarding part of your degree. You are allowed considerable freedom in choosing a project and may suggest your own line of research. An academic staff member will supervise your work.

Learning Outcomes

The Imperial Graduate Attributes are a set of core competencies which we expect students to achieve through completion of any Imperial College degree programme. The Graduate Attributes are available at: www.imperial.ac.uk/students/academic-support/graduate-attributes

Knowledge and Understanding of:

- Basic biological chemistry; cell biology and genetics; organismal biology; ecology, and evolution (Year 1);
- Applied molecular biology, including bioinformatics; genetics statistics; and chosen subject areas (Year 2);
- Advanced knowledge and understanding of three specialist modules.

Intellectual Skills (thinking) skills - able to:

- Analyse and solve biology-based problems;
- Integrate and evaluate information;
- Formulate and test hypotheses using appropriate experimental design and statistical analysis of data;
- Plan, conduct and write-up a programme of original research.

Practical Skills – able to:

- Plan and execute safely a series of experiments;
- Use laboratory and field–based methods to generate data;
- Analyse experimental results and determine their strength and validity;

- Prepare technical reports;
- Give technical presentations;
- Use the scientific literature effectively;
- Use computational tools and packages.

Transferable Skills – able to:

- Communicate effectively through oral presentations, computer processing and presentations, written reports;
- Apply statistical skills;
- Work independently and as part of a team;
- Integrate and evaluate information from a variety of sources;
- Use Information and Communications Technology;
- Manage resources and time;
- Learn independently with open-mindedness and critical enquiry;
- Learn effectively for the purpose of continuing professional development.

Entry Requirements		
Academic Requirement	Grade Requirement	Normally a minimum **AAA** overall
	Subject Requirements	**A** in Biology **A** in Physics, Chemistry or Mathematics **A** in an additional subject Two AS levels may be acceptable in place of a third A level.
	Excluded Subjects	Key Skills/Critical Thinking/General Studies
International Baccalaureate (IB)	Grade Requirement	Minimum **38** points overall
	Subject Requirements	**6** in Biology at higher level **6** in Physics, Chemistry or Mathematics at higher level (or a comparable qualification recognised by the College)
GCSE Requirements		**B** or above in GCSE Mathematics, Chemistry, Biology (or a comparable qualification recognised by the College)
Offers for our Biochemistry, Biotechnology and Biological Sciences courses are made based on information supplied on the UCAS form. Generally, we do not hold interviews.		
English Language Requirement		Higher requirement IELTS 7.0 with a minimum of 6.5 in each element or equivalent
Admissions Tests		Candidates may be asked to undertake an admissions test set by the College in order to

	provide additional information for the Admissions Tutor in support of an application.
Interview	No
The programme's competency standards documents can be found at: http://www.imperial.ac.uk/students/academic-support/graduate-attributes/	
Learning & Teaching Strategy	
Scheduled Learning & Teaching Methods	• Laboratory • Lectures • Tutorials • Seminars
E-learning & Blended Learning Methods	• Computer-based work • Fieldwork
Project Learning Methods	• Group project • Research project/dissertation
Placement Learning Methods	• Site visits
Assessment Strategy	
Assessment Methods	• Written Examinations • Coursework • Laboratory write-ups • Essays • Reports • Dissertations • Presentations • Individual research project report • Viva
Academic Feedback Policy	
Coursework feedback is provided by a feedback form attached to items of coursework. Feedback is also provided via Blackboard on automatically-assessed pieces of coursework and on formative MCQ quizzes. Personal tutors hold timetabled tutorials at the start of the academic year to give feedback on examination performance and can be approached by their tutees at any point in the year for further guidance. The undergraduate teaching office repeatedly informs individual staff via email when coursework is due back at the appropriate time. The Director of Undergraduate Studies routinely monitors the quality and quantity of feedback provided on marked coursework. In some instances, generic class feedback is returned to all students via email or a Blackboard announcement once coursework is marked.	
Re-sit Policy	
The College's Policy on Re-sits is available at: http://www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/	
Mitigating Circumstances Policy	

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Programme Structure

Year One	Term One	Term Two	Term Three	Term Four
Core Modules	2	2		0
Elective Modules	0	0	0	0
Projects	0	0	0	0
Year Two	**Term One**	**Term Two**	**Term Three**	**Term Four**
Core Modules	2	0	0	0
Elective Modules	0	2	1	0
Projects	0	1	0	1
Year Three	**Term One**	**Term Two**	**Term Three**	**Term Four**
Core Modules	0	0	0	0
Elective Modules	2	1	0	0
Projects	0	1		1

Assessment Dates & Deadlines

Year One	
Written Examinations	January and June
Coursework Assessments	Continuous
Project Deadlines	N/A
Practical Assessments	Continuous
Year Two	
Written Examinations	January and June
Coursework Assessments	Continuous
Project Deadlines	May
Practical Assessments	Continuous
Year Three	

Written Examinations	January and February
Coursework Assessments	Continuous
Project Deadlines	June
Practical Assessments	Continuous

Assessment Structure

Marking Scheme

Regulation of Assessment

Minimum pass mark is 40% overall for each course module, which must include a mark of at least 35% in the coursework component and a mark of at least 35% in the examination.

For course modules that include a written examination, coursework typically contributes 20- 25% of the total marks available. Assessment details are provided in the First, Second and Third Year Student Handbooks.

The final degree mark is calculated from the mean mark achieved in Years 1, 2 and 3. For students admitted in or after October 2013 weighted 11.1: 33.3: 55.6, respectively. For students admitted before October 2013 weighted 5: 35: 60.

To qualify for the award of BSc Honours, students must pass all courses.

Assessment Rules and Degree Classification:

For undergraduate programmes classification of degrees will be according to the following range of marks:

First class 70 - 100%
Second class (upper division) 60 - 69.9%
Second class (lower division) 50 - 59.9%
Third class 40 - 49.9%
Fail 0-39%

Year	% Year Weighting	Module	% Module Weighting
Year One	11.1%	Cell Biology and Genetics	25%
		Ecology and Evolution	25%
		Biological Chemistry and Microbiology	25%
		Biology of Organisms	25%
Year Two	33.3%	Applied Molecular Biology	17%
		Genetics	17%
		Tutored Dissertation	14%
		Resource Management	14%
		Behavioural Ecology	14%
		Ecology	14%
		One module from elective group (A)	10%
Year Three	55.6%	***EITHER:*** Laboratory Based Research Project ***OR*** Literature Based Dissertation ***AND*** Science Communication	35%
		One module from elective group (B)	21.66r%
		One module from elective group (C)	21.66r%
		One module from elective group (D)	21.66r%

Module List												
Code	Title	Core/ Elective	Year	L&T Hours	Ind. Study Hours	Place-ment Hours	Total Hours	% Written Exam	% Course-work	% Practical	FHEQ Level	ECTS
LS1-BCM	Cell Biology and Genetics	CORE	1	62	313	0	375	75%	8%	17%	4	15.00
LS1-EE	Ecology and Evolution	CORE	1	49	326	0	375	75%	0%	25%	4	15.00
LS1-BCM	Biological Chemistry and Microbiology	CORE	1	67	308	0	375	75%	0%	25%	4	15.00
LS1-OB	Biology of Organisms	CORE	1	59	316	0	375	75%	0%	25%	4	15.00
LS2-TD	Tutored Dissertation	CORE	2	4	208.5	0	212.5	0%	100%	0%	5	8.50
LS2-AMB	Applied Molecular Biology	CORE	2	54	196	0	250	60%	36%	4%	5	10.00
LS2-GEN	Genetics	CORE	2	54.5	195.5	0	250	75%	10%	15%	5	10.00
LS2-RM	Resource Management	CORE	2	53	159.5	0	212.5	75%	18%	7%	5	8.50
LS2-BE	Behavioural Ecology	CORE	2	65	147.5	0	212.5	75%	0%	25%	5	8.50
LS2-ECO	Ecology	CORE	2	60	152.5	0	212.5	75%	13%	12%	5	8.50
N/A	Horizons	ELECTIVE (A)	2	Various			150	Various				6.00
N/A	Business for Professional Engineers & Scientists	ELECTIVE (A)	2	Various			150	Various				6.00
LS3-FYRP	Lab Based Research Project	CORE*	3	360	165	0	525	0%	100%	0%	6	21.00
LS3-FYRD	Literature Based Dissertation	CORE*	3	10	315	0	325	0%	100%	0%	6	13.00

Module List												
Code	Title	Core/ Elective	Year	L&T Hours	Ind. Study Hours	Place-ment Hours	Total Hours	% Written Exam	% Course-work	% Practical	FHEQ Level	ECTS
LS3-SCICOMM	Science Communication	CORE*	3	31	169	0	200	0%	100%	0%	6	8.00
LS3-PCE	Population and Community Ecology	ELECTIVE (B)	3	38	287	0	325	75%	10%	15%	6	13.00
LS3-TBFC	African Biology Field Course	ELECTIVE (B)	3	99	226	0	325	33%	67%	0%	6	13.00
LS3-MPMI	Symbiosis, Plant Immunity and Disease	ELECTIVE (C)	3	48	277	0	325	75%	17.50%	7.50%	6	13.00
LS3-BCB	Biodiversity and Conservation Biology	ELECTIVE (C)	3	52	273	0	325	75%	22%	3%	6	13.00
LS3-ME	Microbial Ecology	ELECTIVE (F)	2	45	280	0	325	75%	20%	5%	6	13.00
LS3-EB	Evolutionary Genetics	ELECTIVE (F)	3	51	274	0	325	75%	14%	11%	6	13.00
LS3-BDG	Biodiversity Genomics	ELECTIVE (D)	3	40	285	0	325	75%	10%	15%	6	13.00
LS3-GCB	Global Change Biology	ELECTIVE (D)	3	44	281	0	325	75%	17%	8%	6	13.00

*See Y3 table on page 6 (above).

Supporting Information
The Programme Handbook is available at: http://www.imperial.ac.uk/life-sciences/undergraduate/biology/
The Module Handbook is available at: http://www.imperial.ac.uk/life-sciences/undergraduate/biology/
The College's entry requirements for undergraduate programmes can be found at: www.imperial.ac.uk/study/ug/apply/requirements/
The College's Quality & Enhancement Framework is available at: www.imperial.ac.uk/registry/proceduresandregulations/qualityassurance
Imperial College is an independent corporation whose legal status derives from a Royal Charter granted under Letters Patent in 1907. In 2007 a Supplemental Charter and Statutes was granted by HM Queen Elizabeth II. This Supplemental Charter, which came into force on the date of the College's Centenary, 8th July 2007, established the College as a University with the name and style of "The Imperial College of Science, Technology and Medicine". http://www.imperial.ac.uk/admin-services/secretariat/college-governance/charters-statutes-ordinances-and-regulations
Imperial College London is regulated by the Higher Education Funding Council for England (HEFCE) http://www.hefce.ac.uk/reg/register/