

**BSc Biological Sciences with French for Science
BSc Biological Sciences with German for Science
BSc Biological Sciences with Spanish for Science**

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	Biological Sciences with French for Science; Biological Sciences with German for Science; Biological Sciences with Spanish for Science;		
Award(s)	BSc		
Programme Code	C1R1; C1R2; C1R4;		
Associateship	Associateship of the Royal College of Science (ARCS)		
Awarding Institution	Imperial College London		
Teaching Institution	Imperial College London		
Faculty	Faculty of Natural Sciences		
Department	Department of Life Sciences		
Main Location of Study	South Kensington Campus		
Mode and Period of Study	4 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:	270	CATS: 540
FHEQ Level	Level 6		
EHEA Level	1 st cycle		
External Accrator(s)	None		
Specification Details			

Student cohorts covered by specification	2017/18 entry
Person responsible for the specification	Dr Huw Williams
Date of introduction of programme	
Date of programme specification/revision	August 2017
Programme Overview	
<p>All students on Biological Sciences programmes follow the same core modules in the first year of study. As the years progress, students will begin to specialise further according to their chosen degree programme or individual optional module choices.</p> <p>All students have the opportunity to attend field courses, including the popular African Biology Field Course which takes place in South Africa.</p> <p>The four-year courses Biological Sciences with French for Science (C1R1), Biological Sciences with German for Science (C1R2) and Biological Sciences with Spanish for Science (C1R4) are similar to BSc in Biology with a Year in Europe (C102) but with additional language courses.</p> <p>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.</p> <p>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, microbiology, plant biology and zoology.</p> <p>The last term of the final year is devoted to a full-time individual research project. The project is often the most exciting and rewarding part of the degree. Students are allowed considerable freedom in choosing a project and may suggest their own line of research. An academic staff member will supervise student's work.</p>	
Learning Outcomes	
<p>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</p>	
<p>Knowledge and Understanding of:</p> <ul style="list-style-type: none"> • 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. <p>Intellectual Skills (thinking) skills - able to:</p> <ul style="list-style-type: none"> • 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 (or a comparable qualification recognised by the College) Candidates must also have achieved a minimum grade B at AS level in the relevant foreign language
	Excluded Subjects	Key Skills Critical Thinking General Studies
International Baccalaureate (IB)	Grade Requirement	Minimum 38 overall
	Subject Requirements	6 in Biology at higher level 6 in Chemistry, Physics or Mathematics at higher level 6 at standard level or 5 at higher level in the relevant foreign language

		(or a comparable qualification recognised by the College)
GCSE Requirements		B in Mathematics, Chemistry and Biology (or Combined Sciences)
English Language Requirement		Higher requirement IELTS score of 7.0 overall (minimum 6.5 in all elements)
Admissions Tests		None
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		<ul style="list-style-type: none"> • Laboratory • Lectures • Tutorials • Seminars
E-learning & Blended Learning Methods		<ul style="list-style-type: none"> • Computer-based work • Fieldwork
Project Learning Methods		<ul style="list-style-type: none"> • Group project • Research project/dissertation
Placement Learning Methods		<ul style="list-style-type: none"> • Site visits
Assessment Strategy		
Assessment Methods		<ul style="list-style-type: none"> • Written Examinations • Coursework • Laboratory write-ups • Essays • Reports • Dissertations • Presentations • Individual research project report • Viva
Academic Feedback Policy		
<p>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</p>		

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

The College's Policy on Mitigating Circumstances is available at: <http://www.imperial.ac.uk/student-records-and-data/for-current-students/undergraduate-and-taught-postgraduate/exams-assessments-and-regulations/>

Programme Structure

Year One	Pre-session	Term One	Term Two	Term Three	Term Four
Core Modules	0	2 in term one, 3 over term one and two	2	0	0
Elective Modules	0	0	0	0	0
Projects	0	0	0	0	0
Year Two	Pre-session	Term One	Term Two	Term Three	Term Four
Core Modules	0	2 in term one, 3 over term one and two		0	0
Elective Modules	0	0	2	1	0
Projects	0	0	1	0	0
Year Three	Pre-session	Term One	Term Two	Term Three	Term Four
Core Modules	Varies according to host institution				
Elective Modules					
Projects					
Year Four	Pre-session	Term One	Term Two	Term Three	Term Four
Core Modules	0	2	0	0	0

Elective Modules	0	2	1	0	0
Projects	0	0	1		1
Assessment Dates & Deadlines					
Year One					
Written Examinations	e.g. 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	Varies according to host institution				
Coursework Assessments					
Project Deadlines					
Practical Assessments					
Year Four					
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 4. For students admitted in or after October 2013 weighted 11.1: 33.3: 0: 55.6, respectively. For students admitted before October 2013 weighted 5: 35: 0: 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%

Module Weightings			
Year	% Year Weighting	Module	% Module Weighting
Year One	11.1%	Cell Biology and Genetics	20.83r%
		Ecology and Evolution	20.83r%
		Biological Chemistry and Microbiology	20.83r%
		Biology of Organisms	20.83r%
		French/German/Spanish History & Politics	4.16r%
		French/German/Spanish Level 4 (Language for Science)	12.5%
Year Two	33.3%	Applied Molecular Biology	15.15r%
		Genetics	15.15r%
		Tutored Dissertation	12.87r%
		French/German/Spanish Level 5 (Language for Science)	13.63r%
		Science & Technology French/German/Spanish Course	4.45r%
		<i>One module from elective group (A)</i>	12.87r%
		<i>One module from elective group (B)</i>	12.87r%
		<i>One module from elective group (C)</i>	12.87r%
Year Three	0%	Year Abroad	N/A
Year Four	55.6%	French/German/Spanish Scientific and Technical Translation with the use of Translation Technology	9.09r%
		<i>EITHER:</i> Laboratory Based Research Project <i>OR</i> Literature Based Dissertation <i>AND</i> Science Communication	31.81r%
		<i>One module from elective group (D)</i>	19.69r%
		<i>One module from elective group (E)</i>	19.69r%
		<i>One module from elective group (F)</i>	19.69r%

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
ML.04/ML.14/ ML.44	French/German/Spanish Level 4 (Language for Science)	CORE	1	70	155	0	225	35%	65%	0%	6	9.00
N/A	French/German/Spanish History & Politics	CORE	1	20	55	0	75	50%	50%	0%	5	3.00
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
ML.05/ML.15/ ML.45	French/German/Spanish Level 5 (Language for Science)	CORE	2	70	155	0	225	35%	65%	0%	6	9.00
N/A	Science & Technology French/German/Spanish Course	CORE	2	20	55	0	75	50%	50%	0%	5	3.00
LS2-BP	Bacterial Physiology	ELECTIVE (A)	2	68	144.5	0	212.5	75%	5%	20%	5	8.50

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
LS2-CDB	Cell and Developmental Biology	ELECTIVE (A)	2	48	164.5	0	212.5	75%	25%	0%	5	8.50
LS2-RM	Resource Management	ELECTIVE (A)	2	53	159.5	0	212.5	75%	18%	7%	5	8.50
LS2-BE	Behavioural Ecology	ELECTIVE (B)	2	65	147.5	0	212.5	75%	0%	25%	5	8.50
LS2-VIR	Virology	ELECTIVE (B)	2	38	174.5	0	212.5	75%	15%	10%	5	8.50
LS2-ECO	Ecology	ELECTIVE (C)	2	60	152.5	0	212.5	75%	13%	12%	5	8.50
LS2-IMMBIO	Immunology	ELECTIVE (C)	2	40	172.5	0	212.5	75%	7%	18%	5	8.50
LS2-PARA	Parasitology	ELECTIVE (C)	2	39	173.5	0	212.5	75%	15%	10%	5	8.50
LS2-VFE	Vertebrate Form & Evolution	ELECTIVE (C)	2	42	170.5	0	212.5	70%	20%	10%	5	8.50
N/A	Year Abroad (Language for Science)	CORE	3	0	0	1750	1750	0%	100%	0%	6	66.00
N/A	French/German/Spanish Scientific and Technical Translation with the use of Translation Technology	CORE	4	40	110	0	150	0%	40%	60%	5	6.00
LS3-FYRP	Lab Based Research Project	CORE*	4	360	165	0	525	0%	100%	0%	6	21.00
LS3-FYRD	Literature Based Dissertation	CORE*	4	10	315	0	325	0%	100%	0%	6	13.00
LS3-SCICOMM	Science Communication	CORE*	4	31	169	0	200	0%	100%	0%	6	8.00

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-ATPMB	Plant Biotechnology and Development	ELECTIVE (D)	4	56	269	0	325	75%	9%	16%	6	13.00
LS3-DRIBS	Damage and Repair in Biological Systems	ELECTIVE (D)	4	58.5	266.5	0	325	75%	17%	8%	6	13.00
LS3-SBDD	Structural Biology & Drug Design	ELECTIVE (D)	4	73	252	0	325	75%	20%	5%	6	13.00
LS3-MM	Medical Microbiology	ELECTIVE (D)	4	52	273	0	325	75%	5%	20%	6	13.00
LS3-SCRA	Stem Cells, Regeneration and Ageing	ELECTIVE (D)	4	50	275	0	325	75%	0%	25%	6	13.00
LS3-PCE	Population and Community Ecology	ELECTIVE (D)	4	38	287	0	325	75%	10%	15%	6	13.00
LS3-NR	Neuroscience Research	ELECTIVE (D)	4	46	279	0	325	75%	5%	20%	6	13.00
LS3-TBFC	African Biology Field Course	ELECTIVE (D)	4	99	226	0	325	33%	67%	0%	6	13.00
LS3-MNE	Metabolic and Network Engineering	ELECTIVE (D)	4	62	263	0	325	75%	9%	16%	6	13.00
LS3-PDB	Principles of Development	ELECTIVE (D)	4	45	280	0	325	75%	20%	5%	6	13.00
LS3-ATII	Advanced Topics in Immunity and Infection	ELECTIVE (E)	4	57	268	0	325	75%	25%	0%	6	13.00
LS3-MPMI	Symbiosis, Plant Immunity and Disease	ELECTIVE (E)	4	48	277	0	325	75%	17.50%	7.50%	6	13.00
LS3-BCB	Biodiversity and Conservation Biology	ELECTIVE (E)	4	52	273	0	325	75%	22%	3%	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-ATPVB	Advanced Topics in Parasitology and Vector Biology	ELECTIVE (E)	4	43.5	281.5	0	325	75%	22%	3%	6	13.00
LS3-EB	Evolutionary Genetics	ELECTIVE (E)	4	51	274	0	325	75%	14%	11%	6	13.00
LS3-ISB	Integrative Systems Biology	ELECTIVE (E)	4	73	252	0	325	75%	5%	20%	6	13.00
LS3-MGE	Mechanisms of Gene Expression	ELECTIVE (E)	4	38	287	0	325	75%	10%	15%	6	13.00
LS3-ME	Microbial Ecology	ELECTIVE (E)	4	45	280	0	325	75%	20%	5%	6	13.00
LS3-CANCER	Cancer	ELECTIVE (E)	4	56	269	0	325	75%	5%	20%	6	13.00
LS3-EPI	Epidemiology	ELECTIVE (F)	4	44.5	280.5	0	325	75%	12.50%	12.50%	6	13.00
LS3-SB	Synthetic Biology	ELECTIVE (F)	4	52	273	0	325	75%	10%	15%	6	13.00
LS3-BDG	Biodiversity Genomics	ELECTIVE (F)	4	40	285	0	325	75%	10%	15%	6	13.00
LS3-MBBI	Molecular Basis of Bacterial Infection	ELECTIVE (F)	4	53	272	0	325	75%	0%	25%	6	13.00
LS3-BAP	Biotechnology Applications of Proteins	ELECTIVE (F)	4	62	263	0	325	75%	5%	20%	6	13.00
LS3-GCB	Global Change Biology	ELECTIVE (F)	4	44	281	0	325	75%	17%	8%	6	13.00
LS3-BIOINF	Bioinformatics	ELECTIVE (F)	4	61	264	0	325	75%	20%	5%	6	13.00
LS3-MG	Medical Glycobiology	ELECTIVE (F)	4	63	262	0	325	75%	16.50%	8.50%	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-SN	Systems Neuroscience	ELECTIVE (F)	4	44	281	0	325	75%	12.50%	12.50%	6	13.00
LS3-AI	Advanced Immunology	ELECTIVE (F)	4	54	271	0	325	75%	17.5%	7.5%	6	13.00

*See Y4 table on page 7 (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

The College's Academic and Examination Regulations can be found at:

<http://www.imperial.ac.uk/about/governance/academic-governance/regulations/>

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/>

Imperial College London is regulated by the Higher Education Funding Council for England (HEFCE)

<http://www.hefce.ac.uk/reg/register/>

Modifications

Modification	Committee	Date	Paper
Introduce new elective module LS3-AI (Advanced Immunology)	Programmes Committee	25 October 2016	PC.2016.35
Introduce new elective module LS3-DEE (Disease Ecology and Epidemiology)	Programmes Committee	25 October 2016	PC.2016.35
Introduce new elective module LS3-ME (Microbial Ecology)	Programmes Committee	25 October 2016	PC.2016.35
Introduce new elective module LS3-PDB (Principles of Development)	Programmes Committee	25 October 2016	PC.2016.35
Introduce new elective module LS3-QTEFC (Quantitative Tropical Ecology Field Course)	Programmes Committee	25 October 2016	PC.2016.35
Introduce new elective module LS3-ABECB	Departmental Teaching Committee	5 December 2016	

Introduce new elective module LS2-VFE	Departmental Teaching Committee	5 December 2016	
Suspend elective module LS3-QTEFC (Quantitative Tropical Ecology Field Course) for the academic year 2017/18	Departmental Teaching Committee	7 February 2017	
Suspend new elective module LS3-DEE (Disease Ecology and Epidemiology)	Departmental Teaching Committee	27 September 2017	
Macromolecules in 3 Dimensions name changed to Structural Biology & Drug Design	Departmental Teaching Committee	5 December 2016	
Evolutionary Biology name changed to Evolutionary Genetics	Departmental Teaching Committee	10 July 2017	