

BSc Biological Sciences with Management and a Year in Industry/Research

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

Award(s)	BSc		
Associateship	Associateship of the Royal College of Science (ARCS)		
Programme Title	Biological Sciences with Management and a Year in Industry/Research		
Programme code	C1NF		
Awarding Institution	Imperial College London		
Teaching Institution	Imperial College London		
Faculty	Faculty of Natural Sciences		
	Imperial College Business School		
Department	Department of Life Sciences		
	Imperial College Business School		
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		
	General Business and Management		
Total Credits	ECTS:	240	CATS: 480
FHEQ Level	Level 6		
EHEA Level	1 st cycle		
External Accreditor(s)	AMBA EQUIS AACSB International		

Specification Details	
Student cohorts covered by specification	2016/17 entry
Person responsible for the specification	Dr Huw Williams (Life Sciences)
	Ms Veronica Russell (Business School)
Date of introduction of programme	
Date of programme specification/revision	August 2016
Description of Programme Contents	
<p>All students on 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.</p> <p>The four-year BSc in Biology with Management with a Year in Industry/Research (C1NF) is for those who wish to integrate their academic work with periods of practical experience and employment in industry or research institutes. Because of the wide range of approved courses offered in plant, microbiological and animal subjects, students can choose either a specialised or a broader approach to this degree. Students will undertake an industrial/research placement year in the third year of the programme and this is followed by a year in the Imperial College Business School. This year aims to prepare students for a career in business management, management services or management consultancy in the private or public sectors in the UK, Europe or worldwide.</p> <p>Placements are in a variety of areas, such as the pharmaceutical industry, medical research, parasitology, ecology, conservation biology, marine biology, food science and agricultural research. Some students will have the chance to work overseas during their placement year. In their fourth year, they take the normal third year curriculum and project.</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); • The economic, financial and organisational framework within which business enterprises operate, and the functional issues that arise in the management of business activities; • The management of innovation in a modern organisation including the implications of technology • The roles and behaviour of people working in organisations; • The key issues in contemporary human resource management and an appreciation of the theory and research which underpins these issues; 	

- The strategic decisions faced by the top management team of an organisation;
- The operations and control of projects, production and service activities;
- The techniques of financial and managerial accounting and their relevance to the broader issues of management decision-making and control;
- A theoretical framework for analysing key financial markets and an understanding of how they interact with the key decisions of firms;
- The business and economic environment including the ways in which the government responds and shapes the economic environment and how this can be anticipated;
- The key marketing concepts and principles of marketing analysis;
- The management problems that are either unique to international business or arise in particular complex or acute forms in business that span national boundaries;
- The issues associated with evaluating the viability of new technologies, new products or services in the fields of medicine and science.

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;
- Analyse, interpret and evaluate new and/or abstract data and situations without guidance;
- Use a wide range of appropriate techniques and transform data and concepts into novel solutions;
- Read, interpret and analyse published accounts and to evaluate the well-being and potential of a company using ratio analysis;
- Anticipate likely changes in policy and economic conditions given the current economic and political environment.

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;
- Give professional presentations;
- Seek, interpret, present and use data effectively in decision-making;
- Produce creative and realistic solutions to complex problems;
- Use a range of different perspectives to analyse an organisation;
- Identify key issues in human resource management and design a recruitment process and conduct a selection interview;
- Communicate competently with numerical data;
- Participate in managerial decision processes where accounting based information is an important input;
- Assess both the technological and market viability of an idea and select the most appropriate route to market;
- Effectively use Information Technology.

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	<p>The minimum entry requirements for all Biological Sciences courses are AAA overall at A2 level, to include:</p> <p>A in Biology A in Physics, Chemistry or Mathematics A in an additional subject (excluding Critical Thinking or General Studies)</p> <p>Two AS levels may be acceptable in place of a third A level. This is in addition to Grade B or above in GCSE Mathematics, Chemistry, Biology (or Combined Sciences) and English Language (or an overall score of 7.0 in IELTS with 6.5 in each element).</p>
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Non-academic Requirements	None
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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 Requirement	IELTS 7.0 with a minimum of 6.5 in each element or equivalent
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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 • Practical classes and field work • Equipment/technique demonstrations • Workshops, • Case studies • Group work exercises • Formal presentations
E-learning & Blended Learning Methods	<ul style="list-style-type: none"> • Computer-based work • Fieldwork • Pre-programme VLE modules • On-line discussion forums • On-line lecture materials • Interactive content including video and module quizzes
Project and Placement Learning Methods	<ul style="list-style-type: none"> • Group project • Research project/dissertation • Site visits
Assessment Strategy	
Assessment Methods	<ul style="list-style-type: none"> • Written Examinations • Coursework • Continuous assessments • Multiple Choice Tests • Case Studies Participation • 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.

The College's Policy on Re-sits is available at: www.imperial.ac.uk/registry/exams/resit

The College's Policy on Mitigating Circumstances is available at: www.imperial.ac.uk/registry/exams

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 14.2: 42.9: 0: 42.9, respectively. For students admitted before October 2013 weighted 5: 45: 0: 50.

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	14.2%	Cell Biology and Genetics	25%
		Ecology and Evolution	25%
		Biological Chemistry and Microbiology	25%
		Biology of Organisms	25%
Year Two	42.9%	Applied Molecular Biology	17%
		Genetics	17%
		Tutored Dissertation	14%
		<i>One module from elective group (A)</i>	14%
		<i>One module from elective group (B)</i>	14%
		<i>One module from elective group (C)</i>	14%
		<i>One module from elective group (D)</i>	10%
Year Three	0%	Year in Industry/Research	N/A
Year Four	42.9%	Group Project	16.66r%
		Accounting, Business Economics	8.33r%
		Business Strategy	8.33r%
		Entrepreneurship	8.33r%
		Finance and Financial Management	8.33r%
		Global Business Management	8.33r%
		Marketing	8.33r%
		Organisational Behaviour and Human Resource Management	8.33r%
		Innovation Management	8.33r%
		Sustainable Business Development	8.33r%

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-BP	Bacterial Physiology	ELECTIVE (A)	2	68	144.5	0	212.5	75%	5%	20%	5	8.50
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

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-PARA	Parasitology	ELECTIVE (C)	2	39	173.5	0	212.5	75%	15%	10%	5	8.50
N/A	Horizons	ELECTIVE (D)	2	Various			150	Various				6.00
N/A	Business for Professional Engineers & Scientists	ELECTIVE (D)	2	Various			150	Various				6.00
N/A	Year in Industry/Research	CORE	3	0	0	1500	1500	0%	100%	0%	6	60.00
BS0600	Group Project	CORE	4	0	250	0	250	0%	100%	0%	6	10.00
BS0601	Accounting	CORE	4	32	93	0	125	70%	30%	0%	6	5.00
BS0602	Business Economics	CORE	4	27	98	0	125	70%	30%	0%	6	5.00
BS0603	Business Strategy	CORE	4	22	103	0	125	70%	30%	0%	6	5.00
BS0606	Entrepreneurship	CORE	4	22	103	0	125	60%	40%	0%	6	5.00
BS0607	Finance and Financial Management	CORE	4	27	98	0	125	70%	30%	0%	6	5.00
BS0609	Global Business Management	CORE	4	22	103	0	125	70%	30%	0%	6	5.00
BS0611	Marketing	CORE	4	22	103	0	125	70%	30%	0%	6	5.00
BS0612	Organisational Behaviour and Human Resource Management	CORE	4	22	103	0	125	70%	30%	0%	6	5.00

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
BS0616	Innovation Management	CORE	4	22	103	0	125	70%	30%	0%	6	5.00
BS0618	Sustainable Business Development	CORE	4	22	103	0	125	70%	30%	0%	6	5.00
BS0690	Accounting Primer	CORE	4	10	15	0	25	N/A			0.00	
BS0691	Pre-Programme Maths	CORE	4	10	15	0	25	N/A			0.00	
BS1314	Study Skills	CORE	4	10	15	0	25	N/A			0.00	
BS1317	Plagiarism Awareness	CORE	4	10	15	0	25	N/A			0.00	

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 programme is consistent with the Qualifications Framework of the European Higher Education Area which is available at: <http://www.ehea.info/Uploads/qualification/QF-EHEA-May2005.pdf>