

BSc Biological Sciences with Management

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 Management | | |
| Award(s) | BSc | | |
| Programme code | C1N2 | | |
| Associateship | Associateship of the Royal College of Science (ARCS) | | |
| 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 | | |
| Main Location of Study | South Kensington Campus | | |
| 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 | | |
| | General Business and Management | | |
| Total Credits | ECTS: | 180 | CATS: 360 |
| FHEQ Level | Level 6 | | |
| EHEA Level | 1 st cycle | | |
| External Accrerator(s) | AMBA Accreditation received: 1987 Accreditation renewal: 2013 EQUIS Accreditation received: 2006 Accreditation renewal: 2015 | | |

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| | AACSB International Accreditation received: 2012 Accreditation renewal: 2018 |
| Specification Details | |
| Student cohorts covered by specification | 2017/18 entry |
| Person(s) responsible for the specification | Dr Huw Williams (Life Sciences) |
| | Ms Veronica Russell (Business School) |
| Date of introduction of programme | 1990 |
| 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, you will begin to specialise further according to your chosen degree programme or individual optional module choices.</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 year, 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, and zoology.</p> <p>The third year will be spent in the Imperial College Business School studying management subjects. 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> | |
| 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

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| Academic Requirement | Grade Requirement | Normally a minimum AAA overall |
| | Subject Requirements | A in Biology A in Physics, Chemistry or Mathematics |
| | 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 |
| 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

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| 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 |
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| 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 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 • Continuous assessments • Multiple Choice Tests • Case Studies Participation • 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 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.</p> | |
| Re-sit Policy | |
| <p>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/</p> | |
| Mitigating Circumstances Policy | |
| <p>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/</p> | |
| Programme Structure | |

| Year One | Pre-session | Term One | Term Two | Term Three | Term Four |
|------------------------------|-------------|------------------|----------|------------|-----------|
| Core Modules | 0 | 2 | 2 | | 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 | 0 | 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 | 3 | 5 | 5 | 0 | 0 |
| Elective Modules | 0 | 0 | 0 | 0 | 0 |
| Projects | 0 | 0 | 1 | | 0 |
| 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, | | | |

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| Coursework Assessments | Continuous |
| Project Deadlines | May |
| Practical Assessments | Continuous |
| Assessment Structure | |
| Marking Scheme | |
| <p>Regulation of Assessment</p> <p>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.</p> <p>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.</p> <p>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 14.2: 42.9: 42.9, respectively. For students admitted before October 2013 weighted 5: 45: 50.</p> <p>To qualify for the award of BSc Honours, students must pass all courses.</p> <p>Assessment Rules and Degree Classification:</p> <p>For undergraduate programmes classification of degrees will be according to the following range of marks:</p> <p>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%</p> | |

| Module Weightings | | | |
|-------------------|------------------|--------------------------------------------------------|--------------------|
| 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% |
| | | <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 | 55.6% | Group Project | 25% |
| | | Accounting | 7.5% |
| | | Business Economics | 7.5% |
| | | Business Strategy | 7.5% |
| | | Entrepreneurship | 7.5% |
| | | Finance and Financial Management | 7.5% |
| | | Global Business Management | 7.5% |
| | | Marketing | 7.5% |
| | | Organisational Behaviour and Human Resource Management | 7.5% |
| | | Innovation Management | 7.5% |
| | | Sustainable Business | 7.5% |

| 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-VFE | Vertebrate Form & Evolution | ELECTIVE (C) | 2 | 42 | 170.5 | 0 | 212.5 | 70% | 20% | 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 | |
| BS0600 | Group Project | CORE | 3 | 0 | 250 | 0 | 250 | 0% | 100% | 0% | 6 | 10.00 |
| BS0601 | Accounting | CORE | 3 | 32 | 93 | 0 | 125 | 70% | 30% | 0% | 6 | 5.00 |
| BS0602 | Business Economics | CORE | 3 | 27 | 98 | 0 | 125 | 70% | 30% | 0% | 6 | 5.00 |
| BS0603 | Business Strategy | CORE | 3 | 22 | 103 | 0 | 125 | 70% | 30% | 0% | 6 | 5.00 |
| BS0606 | Entrepreneurship | CORE | 3 | 22 | 103 | 0 | 125 | 30% | 70% | 0% | 6 | 5.00 |
| BS0607 | Finance and Financial Management | CORE | 3 | 27 | 98 | 0 | 125 | 70% | 30% | 0% | 6 | 5.00 |
| BS0609 | Global Business Management | CORE | 3 | 22 | 103 | 0 | 125 | 70% | 30% | 0% | 6 | 5.00 |
| BS0611 | Marketing | CORE | 3 | 22 | 103 | 0 | 125 | 70% | 30% | 0% | 6 | 5.00 |
| BS0612 | Organisational Behaviour and Human Resource Management | CORE | 3 | 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 | 3 | 22 | 103 | 0 | 125 | 60% | 20% | 20% | 6 | 5.00 |
| BS0618 | Sustainable Business | CORE | 3 | 22 | 103 | 0 | 125 | 70% | 30% | 0% | 6 | 5.00 |
| BS0693 | Accounting Primer | CORE | 3 | 10 | 15 | 0 | 25 | N/A | | | 0.00 | |
| BS0692 | Maths Primer | CORE | 3 | 10 | 15 | 0 | 25 | N/A | | | 0.00 | |
| BS1314 | Study Skills | OPTIONAL | 3 | 10 | 15 | 0 | 25 | N/A | | | 0.00 | |
| BS1317 | Plagiarism Awareness | CORE | 3 | 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

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/>