

## Foundation Year Specification

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### Science Foundation Year (2020-21)

This specification provides a concise summary of the main features of the Foundation Year and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided.

Awarding Institution	University of Southampton
Teaching Institution	University of Southampton
Mode of Study	Full-time
Duration in years	1
Accreditation details	None
Final award	
Name of award	none
Interim Exit awards	none
FHEQ level of final award	
UCAS code	CB71 (Biochemistry/Biomedical Sciences/Pharmacology); C108 (Biology/Zoology); F108 (Chemistry); F903 (Environmental Sciences); F602 (Geology); F701 (Oceanography); F705 (Marine Biology)
Programme code	7010
QAA Subject Benchmark or other external reference	
Programme Lead	Paul J Wilson (pjw1e10)

### Foundation Year Overview

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#### Brief outline of the Foundation Year

The Foundation Year exists to prepare students without the traditional entry qualifications of A levels in at least two science subjects (or equivalent qualifications) for entry to specified degree courses provided by Biological Sciences, Ocean and Earth Sciences, Chemistry and Environmental Science and selected other schools.

Successful completion of the Foundation Year guarantees progression to any degree programme within the disciplines specified in this document.

Your contact hours will vary depending on your module/option choices. Full information about contact hours is provided in individual module profiles.

## Learning and teaching

You will acquire knowledge and understanding through a mixture of lectures, small group teaching in workshops, supported problem solving, practical demonstrations, laboratory work, private study and coursework (assessed and non-assessed).

## Assessment

You will be assessed through unseen written exams, short tests, assessed coursework in the form of laboratory reports and essays, problems and other set assignments. Formative assessments will support you in your study and you are advised to use these opportunities to help you gauge your understanding and progress.

## Special Features of the programme

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The Science Foundation Year offers an intensive but highly supported opportunity to redirect your interests towards the Sciences.

It is understood that you may not have studied the sciences since GCSE level. For this reason, the Science Foundation Year has been carefully designed to offer progressive teaching supported by laboratory sessions which dovetail across the course of the two semesters so that you can learn, and then put your new knowledge and skills into practice.

Accompanying the study of Biology, Chemistry and Mathematics, you will complete bespoke modules covering practical learning (Laboratories and Coursework) and skills-based learning (Routes to Success for Scientists). You will also have regular progress meetings with a member of the Science Foundation Year teaching team, who along with your personal academic tutor, is there to support your learning journey.

**Please note:** As a research-led University, we undertake a continuous review of our educational delivery to ensure quality enhancement and to manage our resources. As a result, this Foundation Year may be revised during a student's period of registration; however, any revision will be balanced against the requirement that the student should receive the educational service expected. Please read our [Disclaimer](#) to see why, when and how changes may be made to a student's study.

Programmes and major changes to programmes are approved through the University's [programme validation process](#) which is described in the University's [Quality handbook](#).

## Educational Aims of the Programme

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The aims of the Science Foundation Year are to:

- develop your knowledge and understanding of facts, concepts and principles in the areas of biology and chemistry and related subjects;
- develop your understanding of scientific methods;
- develop your knowledge and understanding of the mathematics that underpins chemistry, biology and related sciences;
- prepare you to progress onto Year 1 of your chosen science degree course.

## Foundation Year Learning Outcomes

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### Knowledge and Understanding

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On successful completion of this Foundation Year you will have knowledge and understanding of:

- A1. Facts, terminology, principles, concepts and practical techniques relevant to biology and chemistry;
- A2. Mathematical techniques and their application to science.

### **Teaching and Learning Methods**

You will acquire knowledge and understanding through a mixture of lectures, small group teaching in workshops, supported problem solving, practical demonstrations, laboratory work, private study and (non-assessed) formative coursework.

### **Assessment Methods**

You will be assessed through unseen written exams, short tests, assessed coursework in the form of laboratory reports and essays, problems and other set assignments.

## **Subject Specific Intellectual and Research Skills**

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On successful completion of this Foundation Year you will be able to:

- B1. Use scientific and mathematical principles and concepts to describe, explain phenomena;
- B2. Apply scientific and mathematical knowledge to solve unfamiliar problems;
- B3. Use knowledge to analyse information/experimental results and draw valid conclusions;
- B4. Appreciate the applications and technological implications of scientific principles and concepts.

### **Teaching and Learning Methods**

Intellectual skills are developed through the teaching and learning programme outlined above but especially through problem-solving, comprehension and data analysis exercises and group discussions. Individual and group feedback and advice on progress in these areas throughout the programme should enhance the development of these skills.

### **Assessment Methods**

The assessment methods described above place emphasis on your ability to demonstrate the intellectual skills listed here through the production of coherent answers to problems, suitable choices of methods, and explanation or appropriate challenge of scientific assumptions.

## **Transferable and Generic Skills**

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On successful completion of this Foundation year you will be able to:

- C1. Manage your own learning;

- C2. Solve problems;
- C3. Communicate effectively;
- C4. Record, analyse and evaluate data;
- C5. Apply mathematics;
- C6. Find information, cite & list references;
- C7. Use common IT tools.

### **Teaching and Learning Methods**

These skills are developed in classes, workshops and tutorials through discussion and interaction as well as individual work. Managing your own learning is learnt, rather than taught, through the requirement to organise your private study and to meet the deadlines for submission of work; problem solving is a theme you will find running throughout the programme, as is the application of mathematics. Data recording, analysis and evaluation is developed through practical laboratory sessions and theoretical exercises.

Effective communication is developed through a variety of assignments including essays and reports, group discussions and presentations. Finding information from different types of sources is developed through research for essays and reports.

### **Assessment Methods**

Assessment of these skills is integrated into the coursework for the Foundation Year. Effective communication and information skills are assessed through essays, reports and presentations. Data recording, analysis and evaluation are important in presenting the outcomes of laboratory work; application of mathematics and problem solving are generally assessed through unseen written examinations and coursework assignments. ICT skills are not directly assessed.

### **Subject Specific Practical Skills**

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On successful completion of this Foundation Year you will be able to:

- D1. Work safely in the laboratory;
- D2. Use equipment accurately;
- D3. Observe and record results accurately;
- D4. Formulate hypotheses;
- D5. Design & carry out experiments, identify sources of error and limitations;
- D6. Make accurate drawings of biological specimens.

### **Teaching and Learning Methods**

These skills are developed as part of the teaching and learning and are integrated into the modules, tutorials and individual work. Individual feedback on progress in developing these skills may be given during personal tutorials and problem-solving classes.

## Assessment Methods

Assessment of these skills is integrated into the coursework for the Foundation Year.

## Foundation Year Structure

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The programme structure table is below and describes TWO pathways – a Standard Pathway and a Language Pathway.

The Standard pathway is taken by Students who meet the English proficiency requirements for this programme in terms of the IELTS test (or equivalent) of:

Overall	Reading	Writing	Speaking	Listening
6.5	5.5	5.5	5.5	5.5

Any student not meeting the above requirements studies the Language Pathway.

### Part 0

Typical course content

The Foundation Year is taught on a full-time basis over 2 semesters. All modules in each semester are core. You will study the following modules over both semesters (Information about pre and co-requisites is included in individual module profiles):

### Standard Pathway

#### Part 0 Core

Code	Module Title	ECTS	Type
GSCI0008	Fundamentals of Biology 2020-21	15	Core
GSCI0009	Fundamentals of Chemistry 2020-21	15	Core
GSCI0010	Mathematics for Scientists 2020-21	7.5	Core
GSCI0011	Laboratories and Coursework 2020-21	15	Core
GSCI0012	Routes to Success for Scientists 2020-21	7.5	Core

### Language Pathway

#### Part 0 Core

Code	Module Title	ECTS	Type
GSCI0008	Fundamentals of Biology 2019-20	15	Core

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GSCI0009	Fundamentals of Chemistry 2019-20	15	Core
GSCI0011	Laboratories and Coursework 2019-20	15	Core
GSCI0012	Routes to Success for Scientists 2019-20	7.5	Core
GENG0016	English Language 2019-20	7.5	Core

## Progression Requirements

The Foundation Year will follow the University's regulations for [Progression, Determination and Classification of Results: Undergraduate and Integrated Masters Programmes](http://www.calendar.soton.ac.uk/sectionIV/sectIV-index.html) as set out in the General Academic Regulations in the University Calendar:  
<http://www.calendar.soton.ac.uk/sectionIV/sectIV-index.html>

## Support for student learning

There are facilities and services to support your learning some of which are accessible to students across the University and some of which will be geared more particularly to students in your particular Faculty or discipline area.

The University provides:

- library resources, including e-books, on-line journals and databases, which are comprehensive and up-to-date; together with assistance from Library staff to enable you to make the best use of these resources
- high speed access to online electronic learning resources on the Internet from dedicated PC Workstations onsite and from your own devices; laptops, smartphones and tablet PCs via the Eduroam wireless network. There is a wide range of application software available from the Student Public Workstations.
- computer accounts which will connect you to a number of learning technologies for example, the Blackboard virtual learning environment (which facilitates online learning and access to specific learning resources)
- standard ICT tools such as Email, secure filestore and calendars.
- access to key information through the MySouthampton Student Mobile Portal which delivers timetables, Module information, Locations, Tutor details, Library account, bus timetables etc. while you are on the move.
- IT support through a comprehensive website, telephone and online ticketed support and a dedicated helpdesk in the Hartley Library.
- Enabling Services offering support services and resources via a triage model to access crisis management, mental health support and counselling. Support includes daily Drop In at Highfield campus at 13.00 – 15.00 (Monday, Wednesday and Friday out of term-time) or via on-line chat on weekdays from 14.00 – 16.00. Arrangements can also be made for meetings via Skype.
- assessment and support (including specialist IT support) facilities if you have a disability, long term health problem or Specific Learning Difficulty (e.g. dyslexia)
- the Student Services Centre (SSC) to assist you with a range of general enquiries including financial matters, accommodation, exams, graduation, student visas, ID cards
- Career and Employability services, advising on job search, applications, interviews, paid work, volunteering and internship opportunities and getting the most out of your extra-curricular activities alongside your degree programme when writing your CV
- Other support that includes health services (GPs), chaplaincy (for all faiths) and 'out of hours' support for students in Halls and in the local community (18.00-08.00)
- A Centre for Language Study, providing assistance in the development of English language and study skills for non-native speakers.

The Students' Union provides

- an academic student representation system, consisting of Course Representatives, Academic Presidents, Faculty Officers and the Vice-President Education; SUSU provides training and support for all these representatives, whose role is to represent students' views to the University.
- opportunities for extracurricular activities and volunteering
- an Advice Centre offering free and confidential advice including support if you need to make an academic appeal
- Support for student peer-to-peer groups, such as Nightline.

Associated with your studies you will be able to access:

- The individual module lecturers
- The Science Foundation Year Director and Programme Leader
- A Liaison Tutor within your target academic School
- Study skills and academic subject support through personal and group tutorials

## Methods for evaluating the quality of teaching and learning

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You will have the opportunity to have your say on the quality of the Foundation Year in the following ways:

- Completing student evaluation questionnaires for each module of the Foundation Year
- Acting as a student representative on various committees, e.g. Staff-Student Liaison Committees, Faculty Education Committee OR providing comments to your student representative to feedback on your behalf.
- Serving as a student representative on Faculty Scrutiny Groups for programme validation
- Taking part in programme validation meetings by joining a panel of student to meet with the Faculty Scrutiny Group

The ways in which the quality of your Foundation Year is checked, both inside and outside the University, are:

- Regular module and programme reports which are monitored by the Faculty
- Programme validation, normally every five years.
- A Principal Examiner, who checks academic standards and produces an annual report
- Institutional Review by the Quality Assurance Agency

Further details on the University's quality assurance processes are given in the [Quality Handbook](#).

## Career Opportunities

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Students who undertake the Science Foundation Year typically do so in order to progress to a named Degree Programme. From these pathways the career opportunities are rich and varied depending on the programme taken. Students progressing from the Science Foundation Year are often particularly successful in their chosen degree programmes due to both the academic preparation and acclimatisation for University life that the Science Foundation Year provides.

## Independent Examiner for the Science Foundation Year

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Professor George Attard, University of Southampton

Students must not contact Independent Examiner(s) directly, and independent examiners have been advised to refer any such communications back to the University. Students should raise any general queries about the assessment and examination process for the programme with their Course Representative, for consideration through Staff: Student Liaison Committee in the first instance, and Student representatives on Staff: Student Liaison Committees will have the opportunity to consider external examiners' reports as part of the University's quality assurance process.

The Independent Examiners do not have a direct role in determining results for individual students, and students wishing to discuss their own performance in assessment should contact their Personal Academic Tutor in the first instance.

**Please note:** This specification provides a concise summary of the main features of the Foundation Year and the learning outcomes that a typical student might reasonably be expected to achieve and demonstrate if s/he takes full advantage of the learning opportunities that are provided. More detailed information can be found in the Foundation Year handbook.



## Appendix 1:

Students are responsible for meeting the cost of essential textbooks, and of producing such essays, assignments, laboratory reports and dissertations as are required to fulfil the academic requirements for their study. In addition to this, students registered for this Foundation Year also have to pay for:

### Additional Costs

Type	Details
IT	Computers suitable for completing all assessed tasks for this course are provided in the University computing suites, but students may wish to purchase their own laptop to enable them to study more effectively away from the campus.
Stationery	You will be expected to provide your own day-to-day stationery items, e.g. pens, pencils, notebooks, etc). Any specialist stationery items will be specified under the Additional Costs tab of the relevant module profile.
Textbooks	Some modules suggest reading texts as optional background reading. The library may hold copies of such texts, or alternatively you may wish to purchase your own copies.  Although not essential reading, you may benefit from the additional reading materials for the module.
Equipment and Materials	Students may wish to purchase additional laboratory notebooks. Cost varies depending on personal choice.
Printing and Photocopying Costs	In some cases, coursework and/or projects may be submitted electronically. Where it is not possible to submit electronically students will be liable for printing costs.

In some cases you'll be able to choose modules (which may have different costs associated with that module) which will change the overall cost of your study. Details of such costs will be listed in the Module Profile. Please also ensure you read the section on additional costs in the University's Fees, Charges and Expenses Regulations in the University Calendar available at [www.calendar.soton.ac.uk](http://www.calendar.soton.ac.uk).