

Addendum to the Programme Specification

6237 MSci Natural Sciences

This Addendum has been produced to highlight the key changes made to the existing Programme Specification as a result of the University's response to the Covid-19 Pandemic. You should read it in conjunction with the relevant Programme Specification from the year you started your programme.

[Programme Specification for entry in 2020-21](#)

[Programme Specification for entry in 2019-20](#)

[Programme Specification for entry in 2018-19](#)

[Programme Specification for entry in 2017-18](#)

University level information

In view of COVID-19, the University has had to make changes to some elements of programme delivery for 2020-21. These changes have included the method of delivery, such as face-to-face and online, and the number of modules available.

The University aims to provide as much of a face-to-face component to your education as prevailing conditions at the time allow, combined with its new blended approach that will develop active independent and group online learning.

As the COVID-19 pandemic develops, the University's response to this and other issues may likewise need to evolve. The University will consult with student representatives as necessary and appropriate and will communicate changes to you as soon as practicable so that you have the information you need to understand how a change may impact you and what steps you need to take next. The University remains committed to supporting you as you learn.

Programme Information

In light of Covid-19, there will be a change to how some modules will be organised. Field and lab work remain a mandatory part of the programme, but will be offered in line with current social distancing and local and international guidelines.

Programme Structure

Where optional modules have been specified, the following is an indicative list of available optional modules, which are subject to change each academic year. Please note that, in some instances, modules have limited spaces available.

Programme	MSci Natural Sciences - 6237
Term	2020-2021 Academic Session (2020/21)
Campus	Southampton campuses
Faculty	Environmental and Life Sci

Degree	Master of Science (Integrated)
Level of Study	Undergraduate
Credit Requirement	480
Minors	None

This programme has a single theme:

Code	Description	Full or Part time
6237	MSci Natural Sciences	Full Time

This section describes how the programme is made up of a number of parts of study. For more details on individual study click on the appropriate link.

This page describes the theme and shows the general requirements.

Theme Code	6237
Description	MSci Natural Sciences
Long Title	Integrated master of Science Natural Sciences

The Theme is delivered so:

Description	Campus	Degree	Program Title	Full or Part time
- none -	Southampton campuses	Master of Science (Integrated)	MSci Natural Sciences	Full Time

This section describes how the theme is made up of a number of parts of study. For more details on individual study click on the appropriate link.

Part	Credit Required	Courses Required
MSci Natural Sci Part 1	120	
MSci Natural Sci Part 2	120	
MSci Natural Sci Part 3	120	
MSci Natural Sci Part 4	120	

Programme:	MSci Natural Sciences - 6237
Term:	2020-2021 Academic Session (202021)
Area title:	6237-1 - MSci Natural Sci Part 1

Compulsory Modules

You must complete the following modules:

Module	Module Title	Credit	Core?	Semester/Term
NATS 1003	Detecting the undetectable	15	Yes	Semester 2
NATS 1004	Indepndnt Lrning Skills in Sci	15	No	Semester 1

Optional Modules

You must choose from the following modules:

Module		Credit	Semester/Term
Rule 1	<p>Module Streams</p> <p>Depending on your background, you will undertake one of the following 'no choice streams' in semester 1.</p> <p>Please note you MUST take all module within ONE of these three pre-determined streams.</p>		
Rule 1 GROUP 1	<p>Stream 1</p> <p>If you choose to study this stream you will be able to select 40 optional credits in semester 2.</p>		
BIOL 1024	Fundamentals of Biochemistry	30	Full Academic Year
BIOL 1025	Fundamentals of Cell Biology and Physiology	30	Full Academic Year
CHEM 1049	Fundamentals of Organic Chemistry	15	Semester 1
CHEM 1051	Introduction to Practical Chemistry I	0	Semester 1

Rule 1 GROUP 2	Stream 2		
CHEM 1050	Fundamentals of Thermodynamics and Equilibrium	15	Semester 1
CHEM 1051	Introduction to Practical Chemistry I	0	Semester 1
MATH 1008	Mathematical Methods for Scientists 1a	15	Semester 1
PHYS 1015	Motion and Relativity	10	Semester 1
PHYS 1022	Electricity and Magnetism	10	Semester 1
Rule 1 GROUP 3	Stream 3 If you choose to study this stream you will be able to select 30 optional credits in semester 2.		
BIOL 1029	Origins of Biodiversity	30	Full Academic Year
ENVS 1005	Quantitative Methods	15	Semester 1
SOES 1008	Earth and Ocean System	15	Semester 1

Programme:	MSci Natural Sciences - 6237
Term:	2020-2021 Academic Session (202021)
Area title:	6237-2 - MSci Natural Sci Part 2

Compulsory Modules

You must complete the following modules:

Module	Module Title	Credit	Core?	Semester/Term
NATS 2001	Creating an atmosphere	15	No	Semester 2
NATS 2002	Edtng life: gen eng & syn biol	15	Yes	Semester 1

Optional Modules

You must choose from the following modules:

Module		Credit	Semester/Term
Rule 1	<p>Select 90 Credits</p> <p>Select 90 credits from the following options:</p> <p>Please ensure an even split of credits across semester 1 and semester 2</p>		
BIOL 2001	Evolution	15	Semester 1
BIOL 2004	Pure and Applied Population Ecology	15	Semester 1
BIOL 2007	Plant Development and Function	15	Semester 2
BIOL 2010	Flow of Genetic Information	15	Semester 1
BIOL 2013	Bioinformatics	15	Semester 1
BIOL 2022	Immunology, Infection and Inflammation	15	Semester 2
BIOL 2038	Environmental Microbiology	15	Semester 2
BIOL 2039	Animal Behaviour	15	Semester 2
BIOL 2044	Medical Microbiology	15	Semester 2
BIOL 2045	Vertebrate Development	15	Semester 2
BIOL 2048	Principles of Pharmacology	15	Semester 1
BIOL 2049	Pharmacology	30	Full Academic Year
BIOL 2051	Principles of Neuroscience	15	Semester 1
BIOL 2052	Neuroscience	30	Full Academic Year
BIOL 2056	Cell Biology	15	Semester 1
CHEM 2001	Organic Reaction Mechanisms	15	Semester 1
CHEM 2005	Aspects of Organic Synthesis	15	Semester 2
CHEM 2012	Change and Equilibrium	15	Semester 2

CHEM 2013	Atomic and Molecular Interactions	15	Semester 1
CHEM 2025	Introduction to Programming	15	Semester 1
CHEM 2026	Coordination Chemistry	15	Semester 1
CHEM 2032	Solid State and Organometallic Chemistry	15	Semester 2
GEOG 2032	Global Climate Change: Science, Impacts and Policy	15	Semester 2
GEOG 2037	Global Water Resources	15	Semester 1
PHYS 2003	Quantum Physics	15	Semester 2
PHYS 2007	Medical Physics	15	Semester 2
PHYS 2013	Galaxies	15	Semester 1
PHYS 2015	Introduction to Energy in The Environment	15	Semester 2
PHYS 2023	Wave Physics	15	Semester 1
PHYS 2031	Introduction to the Nanoworld	15	Semester 1
SOES 2003	Geohazards and Earth Resources	15	Semester 1
SOES 2006	Phytoplankton and Primary Production	15	Semester 2
SOES 2011	Marine Vertebrates	15	Semester 1
SOES 2017	Marine Benthic Ecology	15	Semester 2
SOES 2018	Geochemistry	15	Semester 1
SOES 2024	Coastal Ocean Processes	15	Semester 1
SOES 2040	Zooplankton Ecology and Processes (L5)	15	Semester 1

Programme:	MSci Natural Sciences - 6237
Term:	2020-2021 Academic Session (202021)
Area title:	6237-3 - MSci Natural Sci Part 3

Compulsory Modules

You must complete the following modules:

Module	Module Title	Credit	Core?	Semester/Term
NATS 3005	Research Proj in Nat Sciences	30	No	Full Academic Year
NATS 3006	Drugs of the future	15	No	Semester 2
NATS 3007	Engineering the future	15	No	Semester 1
NATS 6007	Rsrch Placment in Nat Sciences	60	No	Non-Standard

Optional Modules

You must choose from the following modules:

Module		Credit	Semester/Term
Rule 1	<p>Select 60 Credits</p> <p>Select 60 credits from the following options:</p> <p>Please ensure an even split of credits across semester 1 and semester 2.</p> <p>You can backtrack to Natural Sciences list from Year 2 for up to 30 credits across the entire year.</p>		
BIOL 3010	Evolution and Genetics	15	Semester 2
BIOL 3013	Molecular Recognition	15	Semester 2
BIOL 3015	Regulation of Gene Expression	15	Semester 1
BIOL 3017	Molecular and Structural Basis of Disease	15	Semester 2
BIOL 3025	Neuropharmacology of CNS Disorders	15	Semester 1
BIOL 3027	Selective Toxicity	15	Semester 1

BIOL 3037	Immunology	15	Semester 1
BIOL 3043	Cellular and Molecular Pathology	15	Semester 1
BIOL 3053	Biodiversity and Conservation	15	Semester 1
BIOL 3063	Bioinformatics and Systems Biology	15	Semester 1
BIOL 3064	Cancer Chromosome Biology	15	Semester 1
BIOL 3065	Biomedical Parasitology	15	Semester 2
BIOL 3067	Evolution and Development	15	Semester 1
BIOL 3068	Fluxes, Cycles and Microbial Communities	15	Semester 2
BIOL 3072	Behavioural Ecology	15	Semester 1
CHEM 3002	Medicinal Chemistry	15	Semester 2
CHEM 3038	Advanced Organic Chemistry (Bioorganic)	15	Semester 1
CHEM 3039	Advanced Physical Chemistry	15	Semester 1
CHEM 3045	Atoms, Molecules and Spins: Quantum Mechanics in Chemistry	15	Semester 2
ENVS 3020	Air Quality and Environmental Pollution	15	Semester 2
ENVS 3022	Tropical Ecology and Conservation	15	Semester 2
GEOG 3057	Adapting to Climate Change and Weather Hazards	15	Semester 1
MATH 3006	Relativity, Black Holes and Cosmology	15	Semester 2
MATH 3083	Advanced Partial Differential Equations	15	Semester 1
PHYS 3002	Nuclei and Particles	15	Semester 2
PHYS 3003	Light and Matter	15	Semester 1
PHYS 3004	Crystalline Solids	15	Semester 2
PHYS 3007	Theories of Matter, Space and Time	15	Semester 1
PHYS 3008	Atomic Physics	15	Semester 1
PHYS 3009	Applied Nuclear Physics	15	Semester 2

Programme:	MSci Natural Sciences - 6237
Term:	2020-2021 Academic Session (202021)
Area title:	6237-4 - MSci Natural Sci Part 4

Compulsory Modules

You must complete the following modules:

Module	Module Title	Credit	Core?	Semester/Term
NATS 6007	Rsrch Placment in Nat Sciences	60	No	Non-Standard
NATS 6008	Biomedl Spectroscopy & Imaging	15	No	Semester 2

Optional Modules

You must choose from the following modules:

Module		Credit	Semester/Term
Rule 1	<p>Select 45 credits</p> <p>Select 45 credits from the following options:</p> <p>Please ensure an even split of credits across semester 1 and semester 2.</p> <p>You can backtrack to Natural Sciences list from Year 3 for up to 30 credits across the entire year.</p>		
ARCH 6420	Palaeopathology in Context	15	Semester 2
BIOL 6022	Molecular Pharmacology	15	Semester 2
BIOL 6029	Evolution and Genetics	15	Semester 2
BIOL 6032	Molecular Recognition	15	Semester 2
BIOL 6076	Biomedical Parasitology	15	Semester 2
BIOL 6096	Global Challenges in Biology	15	Semester 2
CHEM 6162	Advanced Chemical Biology	15	Semester 2

PHYS 6014	Nanoscience: technology and advanced materials	15	Semester 2
SOES 6021	Ecological Modelling	15	Semester 2
SOES 6023	Environmental Radioactivity and Radiochemistry	15	Semester 2
SOES 6024	Seafloor Exploration and Surveying 2	15	Semester 2