



**Natural Sciences Degrees
Choices and Options
2020/21**

Subject Choices for the Natural Sciences

The Natural Sciences degrees are built around a set of **subject streams** for both the BSc and MSci courses. The subject streams are built from a string of **subject blocks** that progress through the years of the course. Each subject block is composed of a number of **units** taught at the University. The details of the units and blocks are given in the BSc and MSci flowcharts <https://www.bath.ac.uk/publications/natural-sciences-course-selection-guide/>.

The BSc and MSci degrees are built as collations of subject streams. Each collation has a **major science subject** which is ultimately the primary focus of study, and a **minor science stream**. Your major subject is the subject in which you ultimately perform your final year research project and that final year choice is enabled by double blocks of units in earlier years.

All permitted collations for year one enable two or three possible major subjects for later years. Your course can adapt to your developing interest and abilities in the Natural Sciences subjects. The units and the collations are on the University catalogue: <https://www.bath.ac.uk/catalogues/2020-2021/s/s-proglist-ug.html>.

The MSci and BSc subject streams and collations are identical for years one and two, but diverge after that. There is no advantage in starting on either MSci or BSc, and with suitable examination results you can switch between them, **except for BSc only** collations, which cannot be taken to the masters level.

Note these collations are not prescribed named degrees like *Physics with Astrophysics* that enforce a single path through the course. You may switch between collations as you wish if your block choices allow it, e.g. it is trivial in years one and two to swap from *Chemistry major with Physics* to *Physics major with Chemistry*. First year blocks are the foundation to your course; example - taking the single block of pharmacology in year 1 of the *Biochemistry with Chemistry* collation can lead to majoring in Pharmacology later in the course.

Your selection of blocks in Year 1 and Year 2 must be drawn from a selection available in one of these named collations.

MASTER'S OR BSc COLLATIONS:

Biochemistry major with Chemistry and Molecular Biology	MSci	BSc
Biochemistry major with Pharmacology	MSci	BSc
Biology major with Chemistry	MSci	BSc
Biology major with Pharmacology	MSci	BSc
Biology major with Physics	MSci	BSc
Chemistry major with Biochemistry	MSci	BSc
Chemistry major with Biology	MSci	BSc
Chemistry major with Pharmacology	MSci	BSc
Chemistry major with Physics	MSci	BSc
Physics major with Biology	MSci	BSc
Physics major with Chemistry	MSci	BSc

BSc ONLY COLLATIONS:

Biochemistry major with Environmental Science	BSc
Biology major with Environmental Science	BSc
Chemistry major with Environmental Science	BSc
Environmental Science major with Biochemistry	BSc
Environmental Science major with Biology	BSc
Environmental Science major with Chemistry	BSc
Environmental Science major with Physics	BSc
Pharmacology major with Biochemistry	BSc
Pharmacology major with Biology	BSc
Pharmacology major with Chemistry	BSc
Physics major with Environmental Science	BSc

THE ACADEMIC YEAR

Each academic year consists of two 15 week semesters each of which will normally have 11 weeks of teaching and then revision and exams on that semester. In each year you have to take 60 credits of material, which is usually 5 blocks such as the biology block B2.1 or the chemistry block C1.3 (although some final year projects are 18 or 24 credits as they are significant pieces of work). Each block is composed of units from the contributing department, often with a choice, so for example B3.1 takes *BB30208 Evolutionary quantitative genetics* and a choice of *BB30131 Evolution in deep time* and *BB30132 Sexual conflict*.

PRE-REQUISITES

One of the keys to understanding the Bath Natural Sciences course is the idea of **pre-requisites**. In order to progress in most subjects, you have to show you have some required prior knowledge. That could be taking particular A Levels, or for example passing a year two biology course to get onto a 3rd year project. The pre-requisites ensure that you will get **depth** to match the **breadth** of the course. Some non-science courses have no pre-requisites – this can be useful for trying new subjects and interests later in the course.

MAKEUP OF COLLATIONS

The major subject stream must consist of two **blocks** of units each year (with the exception of Environmental Sciences), and a final year project or dissertation. The remaining three blocks of each year are taken up by minor science strands and choices of science and non-science units. Once blocks are chosen in year one, they set up **requisites** for further study that may constrain which blocks can be chosen in subsequent years.

Major and minor first year blocks				
Major/minor block name	First year blocks	Requires	Forbidden with	A Level requirements
Biochemistry	Bc1.1	LS1.1	Physics, some Biology	Chemistry; Biology preferred
Biology	B1.1	LS1.1	Biochemistry	Biology
Chemistry	C1.1, C1.2, C1.3		Maximum two Chemistry blocks per year	Chemistry
Pharmacology	Pc1.1	LS1.1	Physics, Environmental Studies	Chemistry, Biology preferred
Physics	P1.1, P1.2	M1.1	Biochemistry, Pharmacology	Physics, Maths
Environmental Science	Begins Yr 2		Pharmacology	Chemistry

Once major and minor streams have been chosen, there will *usually* be space for optional blocks (see details in collations). There are also some forbidden combinations that have been introduced to aid with the academic coherence of the permitted collations and with timetabling.

FLEXIBILITY

ALL final year blocks of the MSci have to be taken at master's level and within science, which reduces flexibility, but there is *usually* room for manoeuvre within the streams later in the course. Many streams have choices between units within them. In addition one of the minor science streams in the BSc final year can usually be replaced by an optional slot, for example to continue the third year of a non-science option.

The ZZ block, the [Director of Studies Approved Units](#), may allow the selection of units from other departments or the mixing of units between blocks.

See the examples at the end of the document.

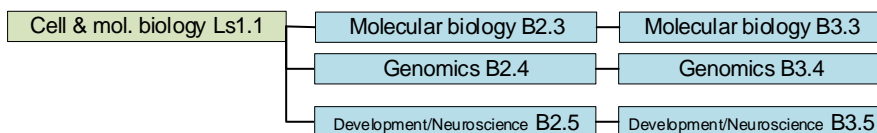
Help with the detailed options

The following pages show the outlines of streams that should be the basis of your choices, along with the options available. They are colour coded as follows:

Mandatory Streams:	<div style="border: 1px solid black; background-color: #d9ead3; padding: 5px; display: inline-block;">Organic Chemistry</div>	You HAVE to take these.
Mandatory Choices:	<div style="border: 1px solid black; background-color: #d9ead3; padding: 5px; display: inline-block;">Organic Chemistry</div>	You HAVE to choose one or more.
Optional Choices:	<div style="border: 1px solid black; background-color: #d9ead3; padding: 5px; display: inline-block;">Organic Chemistry</div>	You can choose between several.

PRE-REQUISITES

The charts show how studying one block allows the study of a subsequent block, or conversely how a block requires blocks to be studied in a previous year by linking lines. So from this example,



Taking the block Ls1.1 enables B2.3 or B2.4 or B2.5 to be taken in year two. To take B3.5 in year 3, you must take B2.5 in year two and have taken Ls1.1 in year one.

HELP WITH MAKING YOUR CHOICES

The charts in the following pages show in detail the default make-up of the collations for BSc and MSci majors.

You can tweak these using the Natural Sciences Web Tool at www.bath.ac.uk/nat-sci/mycourse to experiment with other routes through the course. The tool shows you routes to final endpoints

Please note that a number of final year selections can branch from one first year selection of blocks. Experiment to find the best starting point for you.

See details of the teaching units making up the stream blocks on flowcharts at:

[BSc-2019-20-flowchart.pdf](#)

[MSci-2019-20-flowchart.pdf](#)

There may be rare occasions where due to unforeseen or unavoidable circumstances it becomes necessary to make significant changes to a course or to withdraw it or part of it (e.g. a particular unit/module). Visit: www.bath.ac.uk/study/ug/apply/admissions/changes-withdrawal

Please note: for 2020/21, Education 1 will only be available in Semester 2 for Year 1. If you would like to choose this option, you will need to select a Semester 1 option from a different stream; for example the Management stream or M1.2, Mathematics for the life sciences.

Find out more about this and other important University terms and conditions:

<http://go.bath.ac.uk/ugp-important-terms>

BIOCHEMISTRY

BIOCHEMISTRY MAJOR WITH CHEMISTRY MSci

	Year One	Year Two	Year Three	Final Year
Biochemistry Major with chemistry	Mandatory			
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.1	Biochemistry BC4.1
				Biochemistry Project
		Each year choose one OR two from the options, following prerequisites		
	Mol. & cell biology Ls1.1	Cell biology B2.3	Cell biology B3.3	Cell biology B4.3
		Developmental & neuro B2.5	Developmental & neuro B3.5	Developmental & neuro B4.5
		Choose two streams from the options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1	Organic chemistry C4.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2	Inorganic chemistry C4.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3	Physical chemistry C4.3
Choose one free option	Choose one option for fifth block if needed		May drop one block of chem and take option	

OPTIONS

	Year One	Year Two	Year Three	Final Year
Options for Biochemistry major with Chemistry	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1	Pharmacology Pc4.1
		May transfer to a collation with double Pharmacology	Pharmacology as major or minor	
		Energy/Sustain Env2.1	State of Planet Env3.1	
			Water Cycle Env3.2	
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3	
	Education 1	Education 2	Education 3	
	Management 1	Management 2	Management 3	
	Psychology 1	Psychology 2	Psychology 3	

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three	Final Year
			BSc DoS Approved Units	MSci DoS Approved Units

BIOCHEMISTRY MAJOR WITH CHEMISTRY BSc

	Year One	Year Two	Year Three
Biochemistry Major with chemistry	Mandatory		
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.1 Biochemistry Project
	Mol. & cell biology Ls1.1	Choose one or two blocks following prerequisites	
		Cell biology B2.3	Cell biology B3.3
		Developmental & neuro B2.5	Developmental & neuro B3.5
	Choose two streams from the options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3
	Choose one free option	Choose one option if needed	May drop one block chem and take option below

OPTIONS

	Year One	Year Two	Year Three
OPTIONS FOR Biochemistry Major with chemistry		Energy/Sustain Env2.1	State of Planet Env3.1 or Water Cycle Env3.2
	Maths for life science 1	Maths for life sciences 2	Maths for life sciences 3
	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		May transfer to a collation with double Pharm	
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

BIOCHEMISTRY MAJOR WITH ENVIRONMENTAL SCIENCE BSc

	Year One	Year Two	Year Three
Biochemistry Major with Environmental Science	Mandatory		
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.1 Biochemistry Project
	Mol. & cell biology Ls1.1	Choose one or two blocks following prerequisites	
		Cell biology B2.3	Cell biology B3.3
		Developmental & neuro B2.5	Developmental & neuro B3.5
		Energy/Sustain Env2.1	State of Planet Env3.1 Water Cycle Env3.2
	Choose two streams from the options	Choose one or two streams from the options	
	Organic chemistry C1.1	Organic chemistry C2.1	May drop one Env block to take a block of Chemistry or option from below
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	
	Physical chemistry C1.3	Physical chemistry C2.3	
Choose one free option			

OPTIONS

	Year One	Year Two	Year Three
OPTIONS FOR Biochemistry with Environmental Science	Maths for life science 1	Maths for life sciences 2	Maths for life sciences 3
	Physiology Pc1.1	Pharmacology [@]	
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[@] You may take single or double pharmacology in year 2 by transferring to a collation with pharmacology as a major or minor. Pharmacology is a forbidden combination with Environmental Studies.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

BIOCHEMISTRY MAJOR WITH PHARMACOLOGY MSci

	Year One	Year Two	Year Three	Final Year
Biochemistry Major with pharmacology	Mandatory			
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.1	Biochemistry BC4.1
	Physiology Pc1.1	Pharmacology Pc2.1 Pharmacology Pc2.2	Pharmacology Pc3.1 Pharmacology Pc3.2	Biochemistry Project Pharmacology Pc4.1 Pharmacology Pc4.2
	Mol. & cell biology Ls1.1	Each year choose one or two from the options, following prerequisites		
		Cell biology B2.3	Cell biology B3.3	Cell biology B4.3
		Development/Neuroscience B2.5	Development/Neuroscience B3.5	Development/Neuroscience B4.5
	Choose two options	Choose an option from below if desired as fifth block		May drop Pc4.2 and take option below [^]

OPTIONS

	Year One	Year Two	Year Three	Final Year
Options for Biochemistry Major with pharmacology	Organic chemistry C1.1[*]	Organic chemistry C2.1	Organic chemistry C3.1	Organic chemistry C4.1
	Inorganic chemistry C1.2[*]	Inorganic chemistry C2.2	Inorganic chemistry C3.2	Inorganic chemistry C4.2
	Physical chemistry C1.3[*]	Physical chemistry C2.3	Physical chemistry C3.3	Physical chemistry C4.3
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3	
	Psychology 1	Psychology 2	Psychology 3	
	Education 1	Education 2	Education 3	
	Management 1	Management 2	Management 3	

[*] Note: taking double chemistry in Year 1 allows transfer to a collation naming Chemistry in Year 2 with chemistry as the major or minor. E.g. Biochemistry or Pharmacology with Chemistry

[^] Dropping double pharmacy for double chemistry in the final year is a transfer to Biochemistry with Chemistry MSci.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three	Final Year
			BSc DoS Approved Units	MSci DoS Approved Units

BIOCHEMISTRY MAJOR WITH PHARMACOLOGY BSc

	Year One	Year Two	Year Three
Biochemistry Major with pharmacology	Mandatory		
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.1
			Biochemistry Project
	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		Pharmacology Pc2.2	Pharmacology Pc3.2
	Mol. & cell biology Ls1.1	Choose one or two options subject to prerequisites	
		Cell biology B2.3	Cell biology B3.3
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose two options – at least one science	Choose one option – following prerequisites if needed for fifth block	May drop Pc2.3 to take an option from below

OPTIONS

	Year One	Year Two	Year Three
Options for Biochemistry Major with pharmacology	Science options		
	Organic chemistry C1.1 [*]	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2 [*]	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3 [*]	Physical chemistry C2.3	Physical chemistry C3.3
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Non-Science options		
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[*] Note: taking double chemistry in Year 1 allows transfer to a collation naming Chemistry in Year 2 with chemistry as the major or minor. i.e. Biochemistry or Pharmacology with Chemistry

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

BIOLOGY

BIOLOGY MAJOR WITH CHEMISTRY MSci

	Year One	Year Two	Year Three	Final Year
Biology major with Chemistry				Mandatory
				Biology Project
	Mandatory	Choose between two and three from the biology options, following prerequisites		
	Cell & mol. biology Ls1.1	Genomics B2.4	Genomics B3.4	Genomics B4.4
	Choose one	Molecular biology B2.3	Molecular biology B3.3	Molecular biology B4.3
		Development/Neuroscience B2.5	Development/Neuroscience B3.5	Development/Neuroscience B4.5
	Evolution and Ecology B1.1	Evolution and Ecology B2.1	Evolution and Ecology B3.1	Evolution and Ecology B4.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2	Plant Science B4.2
	Choose two streams from the chemistry options			
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1	Organic chemistry C4.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2	Inorganic chemistry C4.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3	Physical chemistry C4.3
Choose one free option	Choose one free option if needed for fifth block		Drop one block chemistry and take option below.	

OPTIONS

	Year One	Year Two	Year Three	Final Year
Options for Biology major with Chemistry	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1	Pharmacology Pc4.1
		May transfer to a collation with double Pharm		
		Energy/Sustain Env2.1	State of Planet Env3.1 or Water Cycle Env3.2	
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3	
	Education 1	Education 2	Education 3	
	Management 1	Management 2	Management 3	
	Psychology 1	Psychology 2	Psychology 3	

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three	Final Year
			BSc DoS Approved Units	MSci DoS Approved Units

BIOLOGY MAJOR WITH CHEMISTRY BSc

	Year One	Year Two	Year Three
Biology major with Chemistry	Mandatory		Biology Project
	Cell & mol. biology Ls1.1	Choose between two and three of the biology options, following prerequisites	
		Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose one		
	Evolution & Ecology B1.1	Evolution & Ecology B2.1	Evolution & Ecology B3.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2
	Choose two streams from the options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3
Choose one free option	Choose one option if desired as fifth block	May drop one chemistry to take an option	

OPTIONS

	Year One	Year Two	Year Three
Options for Biology major with Chemistry	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		May transfer to a collation with double Pharm	
		Energy/Sustain Env2.1	State of Planet Env3.1 or Water Cycle Env3.2
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

BIOLOGY MAJOR WITH ENVIRONMENTAL SCIENCE BSc

	Year One	Year Two	Year Three
Biology major with Environmental Science	Mandatory		Biology Project
	Cell & mol. biology Ls1.1	Choose two or three biology options, following pre-requisites	
		Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose one		
	Evolution & Ecology B1.1	Evolution & Ecology B2.1	Evolution & Ecology B3.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2
		Energy/Sustain Env2.1	State of Planet Env3.1
	Choose two streams from the options	Choose one or two streams from the chemistry options	Water Cycle Env3.2
	Organic chemistry C1.1	Organic chemistry C2.1	May drop one Env block to take a block of Chemistry or option from below
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	
Physical chemistry C1.3	Physical chemistry C2.3		
Choose one free option	Choose one free option if desired as fifth block		

OPTIONS

	Year One	Year Two	Year Three
OPTIONS FOR Biology with Environmental Science	Maths for life science1	Maths for life sciences 2	Maths for life sciences 3
	Physiology Pc1.1	Pharmacology [@]	
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[@] You may take single or double pharmacology in year 2 by transferring to a collation with pharmacology as a major or minor. Pharmacology is a forbidden combination with Environmental Studies.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

BIOLOGY MAJOR WITH PHARMACOLOGY MSci

	Year One	Year Two	Year Three	Final Year
Biology major with Pharmacology	Mandatory			
	Physiology Pc1.1	Pharmacology Pc2.1 Pharmacology Pc2.2	Pharmacology Pc3.1 Pharmacology Pc3.2	Pharmacology Pc4.1 Pharmacology Pc4.2
	Mol. & cell biology Ls1.1	Choose two or three from the options, following prerequisites		
		Molecular biology B2.3	Molecular biology B3.3	Molecular biology B4.3
		Genomics B2.4	Genomics B3.4	Genomics B4.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5	Development/Neuroscience B4.5
	Choose one			
	Evolution and Ecology B1.1	Evolution and Ecology B2.1	Evolution and Ecology B3.1	Evolution and Ecology B4.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2	Plant Science B4.2
	Choose two free options	Choose option for fifth block if needed		May drop Pc4.2 and take option below.

[*] Note: taking double chemistry in Year 1 allows transfer to a collation naming Chemistry in Year 2 with chemistry as the major or minor. i.e. Biology or Pharmacology with Chemistry

OPTIONS

	Year One	Year Two	Year Three	Final Year
Options for Biology Major with pharmacology	Organic chemistry C1.1[*]	Organic chemistry C2.1	Organic chemistry C3.1	Organic chemistry C4.1
	Inorganic chemistry C1.2 [*]	Inorganic chemistry C2.2	Inorganic chemistry C3.2	Inorganic chemistry C4.2
	Physical chemistry C1.3 [*]	Physical chemistry C2.3	Physical chemistry C3.3	Physical chemistry C4.3
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3	
	Psychology 1	Psychology 2	Psychology 3	
	Education 1	Education 2	Education 3	
	Management 1	Management 2	Management 3	

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three	Final Year
			BSc DoS Approved Units	MSci DoS Approved Units

BIOLOGY MAJOR WITH PHARMACOLOGY BSc

	Year One	Year Two	Year Three
Biology major with Pharmacology	Mandatory		
	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		Pharmacology Pc2.2	Pharmacology Pc3.2
			Biology Project
	Mol. & cell biology Ls1.1	Choose two or three streams subject to prerequisites	
		Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose 1		
	Evolution and Ecology B1.1	Evolution and Ecology B2.1	Evolution and Ecology B3.1
Plant Science B1.2	Plant Science B2.2	Plant Science B3.2	
Choose two free options	Choose one free option if desired for fifth block	May drop one block pharma and take option below.	

OPTIONS

	Year One	Year Two	Year Three
Options for Biology Major with pharmacology	Science options		
	Organic chemistry C1.1 [*]	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2 [*]	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3 [*]	Physical chemistry C2.3	Physical chemistry C3.3
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Non-Science options		
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[*] Note: taking double chemistry in Year 1 allows transfer to a collation naming Chemistry in Year 2 with chemistry as the major or minor. i.e. Biology or Pharmacology with Chemistry

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

BIOLOGY MAJOR WITH PHYSICS MSci

	Year One	Year Two	Year Three	Final Year
Biology major with Physics	Mandatory			
	Physics P1.1	Physics P2.1	Physics P3.1	Physics P4.1
	Physics P1.2	Physics P2.2	Physics P3.2	Physics P4.2
	Maths for physics M1.1	Maths for physics M2.1	Choose 1	Biology Project
			Maths for physics M3.1	
			Environmental Studies Env 2.1	
		Each year choose two biology streams following pre-requisites		
	Cell & mol. biology Ls1.1	Molecular biology B2.3	Molecular biology B3.3	Molecular biology B4.3
		Genomics B2.4	Genomics B3.4	Genomics B4.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5	Development/Neuroscience B4.5
	Choose 1			
	Evolution and Ecology B1.1	Evolution and Ecology B2.1	Evolution and Ecology B3.1	Evolution and Ecology B4.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2	Plant Science B4.2

OPTIONS

There are no optional streams on these courses.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three [€]	Final Year
			BSc DoS Approved Units	MSci DoS Approved Units

BIOLOGY MAJOR WITH PHYSICS BSc

	Year One	Year Two	Year Three
Biology major with Physics	Mandatory		
	Physics P1.1	Physics P2.1	Physics P3.1
	Physics P1.2	Physics P2.2	Physics P3.2
	Maths for physics M1.1	Maths for physics M2.1	May drop a physics block for Maths for physics M3.1
			Biology Project
		Each year choose two subject to pre-requisites	
	Cell & mol. biology Ls1.1	Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose 1		
	Evolution & Ecology B1.1	Evolution & Ecology B2.1	Evolution & Ecology B3.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2

OPTIONS

There are no optional streams on these courses.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

CHEMISTRY

CHEMISTRY MAJOR WITH BIOCHEMISTRY MSci

	Year One	Year Two	Year Three	Final Year
Chemistry Major with Biochemistry	Choose two streams from the options			
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1	Organic chemistry C4.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2	Inorganic chemistry C4.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3	Physical chemistry C4.3
	Mandatory			
			Laboratory chemistry C3.4	Chemistry project C4.5 or Chem project C4.4 (24 cr) and drop a B stream
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.1	Biochemistry BC4.1
	Cell & mol. biology Ls1.1	Each year choose one or two subject to prerequisites		
		Molecular biology B2.3	Molecular biology B3.3	Molecular biology B4.3
		Development/Neuroscience B2.5	Development/Neuroscience B3.5	Development/Neuroscience B4.5
Choose one free option	Choose one option if desired as fifth block	If committed to C4.4, drop a B stream and choose one option from below.		

OPTIONS

	Year One	Year Two	Year Three
Options for Chemistry major with Biochemistry	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		May transfer to a collation with double Pham	
		Energy/Sustain Env2.1	State of Planet Env3.1 or Water Cycle Env3.2
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three	Final Year
				MSci DoS Approved Units

CHEMISTRY MAJOR WITH BIOCHEMISTRY BSc

	Year One	Year Two	Year Three
Chemistry Major with Biochemistry	Choose two streams from the options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3
	Mandatory		
			Chemistry project
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.1
	Cell & mol. biology Ls1.1	Choose one or two subject to pre-requisites	
		Molecular biology B2.3	Molecular biology B3.3
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose one free option	Choose one free option if desired as fifth block	May drop a B/BC block for option below

OPTIONS

	Year One	Year Two	Year Three
Options for Chemistry major with Biochemistry	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		May transfer to a collation with double Pharm	
		Energy/Sustain Env2.1	State of Planet Env3.1 or Water Cycle Env3.2
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

CHEMISTRY MAJOR WITH BIOLOGY MSci

	Year One	Year Two	Year Three	Final Year
Chemistry major with Biology	Choose two streams from the options			
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1	Organic chemistry C4.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2	Inorganic chemistry C4.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3	Physical chemistry C4.3
	Mandatory			
			Laboratory chemistry C3.4	Chemistry project C4.5 or Chem project C4.4 (24 cr) and drop a B stream
	Choose two or three biology streams subject to pre-requisites			
	Cell & mol. biology Ls1.1	Development/Neuroscience B2.5	Development/Neuroscience B3.5	Development/Neuroscience B4.5
		Molecular biology B2.3	Molecular biology B3.3	Molecular biology B4.3
		Genomics B2.4	Genomics B3.4	Genomics B4.4
	Choose 1			
	Evolution & Ecology B1.1	Evolution & Ecology B2.1	Evolution & Ecology B3.1	Evolution & Ecology B4.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2	Plant Science B4.2
	Choose 1 free option	Choose one free option if wanted for fifth block	If committed to C4.4, drop a B stream and choose one option from below.	

OPTIONS

	Year One	Year Two	Year Three
Options for Chemistry major with Biology	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		May transfer to a collation with double Pham	
		Energy/Sustain Env2.1	State of Planet Env3.1 or Water Cycle Env3.2
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three	Final Year
				MSci DoS Approved Units

CHEMISTRY MAJOR WITH BIOLOGY BSc

	Year One	Year Two	Year Three
Chemistry major with Biology	Choose two streams from the options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3
	Mandatory		
			Chemistry project
	Cell & mol. biology Ls1.1	Choose two or three biology stream subject to pre-requisites	
		Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose one		
	Evolution and Ecology B1.1	Evolution and Ecology B2.1	Evolution and Ecology B3.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2
	Choose one free option	Choose one free option if desired for fifth block	May drop one biology to take an option from below subject to pre-requisites

OPTIONS

	Year One	Year Two	Year Three
Options for Chemistry major with Biology	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		May transfer to a collation with double Pharm	
		Energy/Sustain Env2.1	State of Planet Env3.1 or Water Cycle Env3.2
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

CHEMISTRY MAJOR WITH ENVIRONMENTAL SCIENCE BSc

	Year One	Year Two	Year Three
Chemistry major with Environmental Science	Choose two streams from the options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3
	Mandatory		
			Chemistry project
			State of Planet Env3.1
			Water Cycle Env3.2
	Cell & mol. biology Ls1.1	Choose one or two biology stream subject to prerequisites	
		Molecular biology B2.3	
		Genomics B2.4	
		Development/Neuroscience B2.5	
	Choose one		
	Evolution and Ecology B1.1	Evolution and Ecology B2.1	
	Plant Science B1.2	Plant Science B2.2	
Biochemistry BC1.1	Biochemistry BC2.1		
Choose one free option	Choose one free option for fifth block if desired		
		May drop one Env block to take a block of Biology or option from below	

OPTIONS

	Year One	Year Two	Year Three
OPTIONS FOR Chemistry with Environmental Science	Maths for life science 1	Maths for life sciences 2	Maths for life sciences 3
	Physiology Pc1.1	May transfer to a collation with double Pharm	
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[@] You may take single or double pharmacology in year 2 by transferring to a collation with pharmacology as a major or minor. Pharmacology is a forbidden combination with Environmental Studies.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

CHEMISTRY MAJOR WITH PHARMACOLOGY MSci

	Year One	Year Two	Year Three	Final Year
Chemistry major with Pharmacology	Choose two streams from the options			
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1	Organic chemistry C4.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2	Inorganic chemistry C4.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3	Physical chemistry C4.3
			Laboratory chemistry C3.4	Chemistry project C4.5 or Chem project C4.4 (24 cr) and drop a Pc stream
	Physiology Pc1.1	Pharmacology Pc2.1 Pharmacology Pc2.2	Pharmacology Pc3.1 Pharmacology Pc3.2	Pharmacology Pc4.1 Pharmacology Pc4.2
	Mol. & cell biology Ls1.1			
	Each year choose one free option			
			May drop PC3.2 for option below – if taking C4.4	

OPTIONS

	Year One	Year Two	Year Three
Options for Chemistry major with Pharmacology		Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Evolution & Ecology B1.1[#]	Evolution & Ecology B2.1	Evolution & Ecology B3.1
	Plant Science B1.2 [#]	Plant Science B2.2	Plant Science B3.2
	Biochemistry BC1.1 [##]	Biochemistry BC2.1	Biochemistry BC3.1
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[#] Note: taking double Biology in Year 1 (Ls1.1 and a # option) allows transfer to a collation naming Biology (## Biochemistry) in Year 2 with Biology (Biochemistry) as the major or minor. i.e. Biology or Pharmacology with Chemistry

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three	Final Year
				MSci DoS Approved Units

CHEMISTRY MAJOR WITH PHARMACOLOGY BSc

	Year One	Year Two	Year Three
Chemistry major with Pharmacology	Choose two streams from the options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3
	Physiology Pc1.1	Pharmacology Pc2.1	Chemistry project
		Pharmacology Pc2.2	Pharmacology Pc3.1
	Mol. & cell biology Ls1.1		Pharmacology Pc3.2
	Each year choose one free option		May drop a Pc for option below

OPTIONS

	Year One	Year Two	Year Three
Options for Chemistry major with Pharmacology		Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Evolution & Ecology B1.1[#]	Evolution & Ecology B2.1	Evolution & Ecology B3.1
	Plant Science B1.2 [#]	Plant Science B2.2	Plant Science B3.2
	Biochemistry BC1.1 [##]	Biochemistry BC2.1	Biochemistry BC3.1
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[#] Note: taking double Biology in Year 1 (Ls1.1 and a # option) allows transfer to a collation naming Biology (## Biochemistry) in Year 2 with Biology (Biochemistry) as the major or minor. i.e. Biology or Pharmacology with Chemistry

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

CHEMISTRY MAJOR WITH PHYSICS MSci

	Year One	Year Two	Year Three	Final Year
Chemistry major with Physics	Choose two ongoing streams from the options			
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1	Organic chemistry C4.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2	Inorganic chemistry C4.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3	Physical chemistry C4.3
				Chemistry project C4.5 or Chem project C4.4 (24 cr) and drop P4.2
	Mandatory			
			Laboratory chemistry C3.4	
	Physics P1.1	Physics P2.1	Physics P3.1	Physics P4.1
	Physics P1.2	Physics P2.2	Physics P3.2	Physics P4.2
	Maths for physics M1.1	Maths for physics M2.1		

CHEMISTRY MAJOR WITH PHYSICS BSc

	Year One	Year Two	Year Three
Chemistry major with Physics	Choose two streams from the options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3
	Mandatory		
			Chemistry project
	Physics P1.1	Physics P2.1	Physics P3.1
	Physics P1.2	Physics P2.2	Physics P3.2
	Maths for physics M1.1	Maths for physics M2.1	May drop one block physics and take Maths for physics M3.1

Options

There are no optional streams on these courses. There are options in the later physics blocks.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three [€]	Final Year
			BSc DoS Approved Units	MSci DoS Approved Units

[€] Not available on the MSci

PHYSICS

PHYSICS MAJOR WITH BIOLOGY MSci

	Year One	Year Two	Year Three	Final Year
Physics major with Biology	Mandatory			
	Physics P1.1	Physics P2.1	Physics P3.1	Physics P4.1
	Physics P1.2	Physics P2.2	Physics P3.2	Physics P4.2
			Physics P3.3	Physics project P4.3
	Maths for physics M1.1	Maths for physics M2.1		
	Cell & mol. biology Ls1.1	Each year choose two biology streams subject to pre-requisites		
		Molecular biology B2.3	Molecular biology B3.3	Molecular biology B4.3
		Genomics B2.4	Genomics B3.4	Genomics B4.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5	Development/Neuroscience B4.5
	Choose one			
	Evolution & Ecology B1.1	Evolution & Ecology B2.1	Evolution & Ecology B3.1	Evolution & Ecology B4.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2	Plant Science B4.2

PHYSICS MAJOR WITH BIOLOGY BSc

	Year One	Year Two	Year Three
Physics major with Biology	Mandatory		
	Physics P1.1	Physics P2.1	Physics P3.1
	Physics P1.2	Physics P2.2	Physics P3.2
			Physics project
	Maths for physics M1.1	Maths for physics M2.1	May drop a B block for Maths for physics M3.1
	Cell & mol. biology Ls1.1	Choose two biology streams subject to pre-requisites	
		Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose one		
	Evolution and Ecology B1.1	Evolution and Ecology B2.1	Evolution and Ecology B3.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2

Options: There are no optional streams in these choices.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three [€]	Final Year
			BSc DoS Approved Units	MSci DoS Approved Units

[€] Not available on the MSci

PHYSICS MAJOR WITH CHEMISTRY MSci

	Year One	Year Two	Year Three	Final Year
Physics Major with Chemistry	Mandatory			
	Physics P1.1	Physics P2.1	Physics P3.1	Physics P4.1
	Physics P1.2	Physics P2.2	Physics P3.2	Physics P4.2
			Physics P3.3	Physics project P4.3
	Maths for physics M1.1	Maths for physics M2.1		
	Choose two streams from the options			
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1	Organic chemistry C4.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2	Inorganic chemistry C4.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3	Physical chemistry C4.3

PHYSICS MAJOR WITH CHEMISTRY BSc

	Year One	Year Two	Year Three
Physics Major with Chemistry	Mandatory		
	Physics P1.1	Physics P2.1	Physics P3.1
	Physics P1.2	Physics P2.2	Physics P3.2
			Physics project
	Maths for physics M1.1	Maths for physics M2.1	May drop one block chemistry and take Maths for physics M3.1
	Choose two streams from the options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3

OPTIONS

There are no optional streams in these choices.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three [€]	Final Year
			BSc DoS Approved Units	MSci DoS Approved Units

[€] Not available on the MSci

PHYSICS MAJOR WITH ENVIRONMENTAL SCIENCE BSc [NEW]

Note: This collation can be transferred to after the first year in the collations of Chemistry with Physics or Physics with Chemistry.

	Year One	Year Two	Year Three
Physics with Environmental Science	Mandatory		
	Physics P1.1	Physics P2.1	Physics P3.1
	Physics P1.2	Physics P2.2	Physics P3.2
	Maths for physics M1.1	Maths for physics M2.1	Physics project
		Energy/Sustain Env2.1	State of Planet Env3.1
			Water Cycle Env3.2
	Choose two streams	Continue one stream	
	Organic chemistry C1.1	Organic chemistry C2.1	
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	May drop one Env block and continue chemistry
	Physical chemistry C1.3	Physical chemistry C2.3	

You may transfer from this collation to Chemistry with Physics or Physics with Chemistry in year 2.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

ENVIRONMENTAL SCIENCE

Note: The first three collations combine Environmental Science, Chemistry and a Life Science. They all allow you to move to a collation with Chemistry as the major or minor in the second year.

ENVIRONMENTAL SCIENCE MAJOR WITH BIOCHEMISTRY BSc

	Year One	Year Two	Year Three
Environmental Science with Biochemistry	Mandatory		
		Energy/Sustain Env2.1	State of Planet Env3.1
			Water Cycle Env3.2
			Environm Dissertation
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.1
	Mol. & cell biology Ls1.1	Choose one or two following prerequisites	
		Cell biology B2.3	Cell biology B3.3
		Developmental & neuro B2.5	Developmental & neuro B3.5
	Choose two	Take one or two options to give five blocks total; only 1 non-science. If double Chem may change to Chem &/w Bioch collation	
	Organic chemistry C1.1		
Inorganic chemistry C1.2			
Physical chemistry C1.3			
Choose one option	May drop one BC/B block to take an option from below.		

Options

	Year One	Year Two	Year Three
Choices: Environmental Science with Biochemistry	Physiology Pc1.1[@]	Pharmacology [@]	
		Organic chemistry C2.1	Organic chemistry C3.1
		Inorganic chemistry C2.2	Inorganic chemistry C3.2
		Physical chemistry C2.3	Physical chemistry C3.3
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[@] You may take single or double pharmacology in year 2 by transferring to a collation with pharmacology as a major or minor. Pharmacology is a forbidden combination with Environmental Studies.

You may move to a collation with a Chemistry major/minor and Biochemistry or Environmental Science in year 2.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

ENVIRONMENTAL SCIENCE MAJOR WITH BIOLOGY BSc

	Year One	Year Two	Year Three
Environmental Science with Biology	Mandatory		
		Energy/Sustain Env2.1	State of Planet Env3.1 Water Cycle Env3.2 Environm Dissertation
	Mol. & cell biology Ls1.1	Choose 2 or 3 biology streams subject to prerequisites	
		Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose one		
	Evolution & Ecology B1.1	Evolution & Ecology B2.1	Evolution & Ecology B3.1
	Plant Science B1.2	Plant Science B2.2	Plant Science B3.2
	Choose two		
	Organic chemistry C1.1	Take options to 5 blocks total – only 1 non-science. If double Chem may transfer to a collation with Biology &/w Chemistry	
	Inorganic chemistry C1.2		
	Physical chemistry C1.3		
Take one option		May drop one biology block to take an option from below.	

OPTIONS

	Year One	Year Two	Year Three
Choices: Environmental Science with Biology	Physiology Pc1.1[@]	Pharmacology [@]	
		Organic chemistry C2.1	Organic chemistry C3.1
		Inorganic chemistry C2.2	Inorganic chemistry C3.2
		Physical chemistry C2.3	Physical chemistry C3.3
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[@] You may take single or double pharmacology in year 2 by transferring to a collation with pharmacology as a major or minor. Pharmacology is a forbidden combination with Environmental Studies

You may move to a collation with a Chemistry major/minor and Biology or Environmental Science in year 2.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

ENVIRONMENTAL SCIENCE MAJOR WITH CHEMISTRY BSc

	Year One	Year Two	Year Three
Environmental Science with Chemistry	Mandatory		
		Energy/Sustain Env2.1	State of Planet Env3.1 Water Cycle Env3.2 Environm Dissertation
	Mol. & Cell biology Ls1.1		
	Choose 2 streams from the options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3
	Choose 1 or 2 options for Year 1 to pair with Ls1.1		
	Choose 1 or 0 options to take number of blocks to 5	Take 2 options following pre-requisites	May drop one chemistry to take option below

OPTIONS

Colour of choice boxes indicate available options.

	Year One	Year Two	Year Three
Choices: Environmental Science with Chemistry	Physiology Pc1.1[@]	Pharmacology [@]	
		Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Evolution & Ecology B1.1[#]	Evolution & Ecology B2.1	Evolution & Ecology B3.1
	Plant Science B1.2 [#]	Plant Science B2.2	Plant Science B3.2
	Biochemistry BC1.1 [#]	Biochemistry BC2.1	Biochemistry BC3.1
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 2
	Education 1	Education 2	Education 2
	Management 1	Management 2	Management 2
Psychology 1	Psychology 2	Psychology 2	

Note: You cannot take B1.1 or B1.2 with BC1.1. You cannot take both BC2.1 and B2.4 in Year 2.

[@] You may swap to collation with Pharmacology as major or minor in second year. Pharmacology is a forbidden combination with Environmental Studies

[#] Note: taking double Biology in Year 1 (Ls1.1 and a # option) allows transfer to a collation naming Biology in Year 2 with Biology as the major or minor. i.e. Biology or Pharmacology with Chemistry

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

[NEW] ENVIRONMENTAL SCIENCE MAJOR WITH PHYSICS BSc

Note: This collation can be transferred to after the first year in the collations of Chemistry with Physics or Physics with Chemistry.

	Year One	Year Two	Year Three
Environmental Science with Physics	Mandatory		
		Energy/Sustain Env2.1	State of Planet Env3.1 Water Cycle Env3.2 Environm Dissertation
	Physics P1.1	Physics P2.1	Physics P3.1
	Physics P1.2	Physics P2.2	Physics P3.2
	Maths for physics M1.1	Maths for physics M2.1	
	Choose two streams	Continue one stream	
	Organic chemistry C1.1	Organic chemistry C2.1	May drop one block physics to take continue chemistry
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	
	Physical chemistry C1.3	Physical chemistry C2.3	

You may transfer from this collation to Chemistry with Physics or Physics with Chemistry in year 2.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

PHARMACOLOGY

PHARMACOLOGY MAJOR WITH BIOCHEMISTRY BSc

	Year One	Year Two	Year Three
Pharmacology Major with biochemistry	Mandatory		
	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		Pharmacology Pc2.2	Pharmacology Pc3.2
			Pharmacology Dissertation
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.3
	Mol. & cell biology Ls1.1	Choose AT LEAST one subject to prerequisites	
		Cell biology B2.3	Cell biology B3.3
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose two options	Take two options	May drop one biochemistry block for option below.

OPTIONS

	Year One	Year Two	Year Three
Pharmacology Major with biochemistry	Organic chemistry C1.1 [*]	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2[*]	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3 [*]	Physical chemistry C2.3	Physical chemistry C3.3
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[*] Note: taking double chemistry in Year 1 allows transfer to a collation naming Chemistry in Year 2 with chemistry as the major or minor. i.e. Biochemistry or Pharmacology with Chemistry.

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

PHARMACOLOGY MAJOR WITH BIOLOGY BSc

	Year One	Year Two	Year Three
Pharmacology major with Biology	Mandatory		
	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		Pharmacology Pc2.2	Pharmacology Pc3.2
			Pharmacology Dissertation
	Mol. & cell biology Ls1.1	Choose 2 or 3 biology streams subject to prerequisites	
		Molecular biology B2.3	Molecular biology B3.3
		Genomics B2.4	Genomics B3.4
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Choose 1		
	Evolution & Ecology B1.1	Evolution & Ecology B2.1	Evolution & Ecology B3.1
Plant Science B1.2	Plant Science B2.2	Plant Science B3.2	
Choose two free options from below	Choose one free options from below if need for fifth block	May drop one block biology for option below	

OPTIONS

	Year One	Year Two	Year Three
Choices: Pharmacology major with Biology	Organic chemistry C1.1 [*]	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2 [*]	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3 [*]	Physical chemistry C2.3	Physical chemistry C3.3
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[*] Note: taking double chemistry in Year 1 allows transfer to a collation naming Chemistry in Year 2 with chemistry as the major or minor. i.e. Biology or Pharmacology with Chemistry

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

PHARMACOLOGY MAJOR WITH CHEMISTRY BSc

	Year One	Year Two	Year Three
Pharmacology major with Chemistry	Mandatory		
	Physiology Pc1.1	Pharmacology Pc2.1	Pharmacology Pc3.1
		Pharmacology Pc2.2	Pharmacology Pc3.2
			Pharmacology Dissertation
	Mol. & cell biology Ls1.1		
	Choose two streams from the chemistry options		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3
	Each year choose one free option		May drop one chemistry for option below

OPTIONS

	Year One	Year Two	Year Three
Options for Pharmacology major with Chemistry		Molecular biology B2.3	Molecular biology B3.3
		Development/Neuroscience B2.5	Development/Neuroscience B3.5
	Evolution & Ecology B1.1[#]	Evolution and Ecology B2.1	Evolution and Ecology B3.1
	Plant Science B1.2 [#]	Plant Science B2.2	Plant Science B3.2
	Biochemistry BC1.1 [#]	Biochemistry BC2.1	Biochemistry BC3.1
	Maths for life sciences 1	Maths for life sciences 2	Maths for life sciences 3
	Education 1	Education 2	Education 3
	Management 1	Management 2	Management 3
	Psychology 1	Psychology 2	Psychology 3

[#] Note: taking double Biology in Year 1 (Ls1.1 and a # option) allows transfer to a collation naming Biology in Year 2 with Biology as the major or minor. i.e. Biology or Pharmacology with Chemistry

DIRECTOR OF STUDIES APPROVED UNITS

	Year One	Year Two	Year Three
			BSc DoS Approved Units

Examples of easy modifications

As shown above, in the final year of a BSc degree, a block of the minor science can be replaced with a block from the non-science options. Education or Management can always be selected for this block. Psychology can only be selected if it has already been studied in years 1 and 2.

- (i) Drop BSc Final Year Minor: *"I have decided I want to be a teacher"*

	Year One	Year Two	Year Three
Chemistry Major with Biochemistry	Two streams selected		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Mandatory		
			Chemistry project
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.1
	Cell & mol. biology Ls1.1	One stream selected	
		Molecular biology B2.3	Molecular biology B3.3
	Maths for life sciences 1	Education 2	

	Year One	Year Two	Year Three
Chemistry Major with Biochemistry	Two streams selected		
	Organic chemistry C1.1	Organic chemistry C2.1	Organic chemistry C3.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Mandatory		
			Chemistry project
	Biochemistry BC1.1	Biochemistry BC2.1	Biochemistry BC3.1
	Cell & mol. biology Ls1.1	One subject selected	
		Molecular biology B2.3	
	Maths for life sciences 1	Education 2	Education 3

Education can replace either Biology or Biochemistry in the final year as they are both minor subjects – only in the BSc.

(ii) Changing Major: *"I just love physics after all"*

This is quite a common dilemma for double-double choices, and it is a straightforward swap. You can change your declared major and minor when progressing to a new year of study. The courses below, with the same chemistry options selected, are identical in years 1 and 2

	Year One	Year Two	Year Three
Chemistry major with Physics	Two streams chosen		
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3
	Mandatory		
			Chemistry project
	Physics P1.1	Physics P2.1	Physics P3.1
	Physics P1.2	Physics P2.2	Physics P3.2
	Maths for physics M1.1	Maths for physics M2.1	

	Year One	Year Two	Year Three
Physics Major with Chemistry	Mandatory		
	Physics P1.1	Physics P2.1	Physics P3.1
	Physics P1.2	Physics P2.2	Physics P3.2
			Physics project
	Maths for physics M1.1	Maths for physics M2.1	
	Two streams chosen		
	Inorganic chemistry C1.2	Inorganic chemistry C2.2	Inorganic chemistry C3.2
	Physical chemistry C1.3	Physical chemistry C2.3	Physical chemistry C3.3

The first year choice below starting in the Biology with Chemistry collation gives the option to major in Biology, Chemistry or Pharmacology in year two. It also has six different combinations of biology blocks possible within double biology. So, after choosing the right five blocks for year two, you could now be on the collation of Pharmacology major with Biology, and with Chemistry as the supporting subject.

	Year One	Year Two
Biology major with Chemistry	Cell & mol. biology Ls1.1	Genomics B2.4
		Molecular biology B2.3
		Development/Neuroscience B2.5
	Evolution & Ecology B1.1	Evolution & Ecology B2.1
	Organic chemistry C1.1	Organic chemistry C2.1
	Inorganic chemistry C1.2	Inorganic chemistry C2.2
	Physiology Pc1.1	Pharmacology Pc2.1
		Pharmacology Pc2.2

(iii) Director of Studies Approved Units

	Year One	Year Two	Year Three	Final Year
			BSc DoS Approved Units	MSci DoS Approved Units

Not shown fully in these collations are the Director of Studies Approved Units blocks that are normally available in year 3 of the BSc degrees, and year 4 of the MSci degrees. In some MSci collations there is also a year 3 Director of Studies Approved Units block.

These can be taken in place of the blocks named in the collations above, subject to timetabling, and can be built from other units from the Natural Sciences selection, units mixed between the usual block structures or units taken from other courses. These must follow certain technical requirements to preserve the overall validity of the degree to be awarded, you need the pre-requisite knowledge to study them, and selecting them needs approval from the Natural Sciences and the delivering department: hence – Director of Studies Approved Units.